

**IMPACT OF ANTI-RETROVIRAL THERAPY ON SEXUAL
BEHAVIOUR AMONG VILLA-MARIA HOSPITAL CLIENTS,
MASAKA DISTRICT UGANDA**

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**Centre for International Health
Faculty of Medicine and Dentistry
University of Bergen, Norway**

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This thesis is submitted in partial fulfilment of the requirements for the degree of Master of
Philosophy in International Health at the University of Bergen.

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ABSTRACT

Behavioural change programmes specifically those promoting faithfulness, partner reduction and consistent right condom use contributed to the early declines in HIV incidence and prevalence in Uganda. To guard against treatment optimism and continued risky sexual practices which might result from improved health status, ART clients are also subjected to intensive behavioural change intervention campaigns in Uganda. However, comprehensive evaluation of behavioural change interventions /programmes and the impact of ART on sexual behaviour in Uganda is scarce and limited to only six months duration on ART. This thesis investigated ART clients' knowledge about HIV/AIDS and ART, patterns of VCT services use prior to ART initiation, sexual practices before and after ART initiation. The extent to which ART clients adapt to HIV/AIDS preventive measures and the appropriateness of the health education model were also investigated.

A cross sectional study was conducted between June–September 2008 among Villa-Maria hospital clients in Masaka district Uganda. A purposive convenient sampling technique was applied to select a total of 48 participants. Data was collected using interviewer administered questionnaire, in-depth interviews and focus group discussions. A total of 48 questionnaires were administered, 16 in-depth interviews and 4 focus group discussions with 32 participants were conducted.

Study participants were evenly distributed across the sexes. The majority were subsistence farmers and had been on ART for almost two years on average. Their educational level was predominantly upper primary. The mean distance covered to the ART /VCT centre was 18km. The findings indicate high levels of knowledge about both HIV/AIDS and ART except for a few individual cases. The study shows that ART initiation had improved the health of the clients and had enabled them to start getting involved in economic activities although at a lower rate than prior to their HIV/AIDS diagnosis. Although no participant reported being a victim to stigmatisation, routine home visits were criticised for working as a trigger for stigmatisation and HIV infection suspicion. Participants reported increased food appetite as a consequence of ART treatment, and occurrence of ART side effects was reported to be due to none observance of ART rules. Reduced frequency of sexual intercourse and reduced number

of sexual partners were also reported after diagnosis and ART initiation. Condom use was reported to be inconsistent because it was disliked by the male clients, the desire to have children, financial dependency and being in a stable marital union. VCT uptake followed long episodes of persistent illnesses and it was influenced by relatives, friends, health care workers, HIV/AIDS diagnosis was confirmed at the first VCT visit for all clients. The study showed that there is an emerging phenomenon of ART self discontinuation among the newly born again Christians.

Although ART treatment benefits stretched beyond its clinical benefits, complete recovery of ART clients' economic status prior to their HIV/AIDS diagnosis was still a big challenge to interviewees. Sexually active ART clients don't use condoms consistently and correctly despite their reported reduction in frequency of sexual intercourse, number of sexual partners and high knowledge levels about HIV/AIDS and ART. VCT uptake campaigns should be made more vibrant while livelihood boosting interventions need to be integrated into behavioural interventions and ART treatment programmes.

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ABBREVIATIONS

ABC	Abstinence, Be faithful and Condom use
ACWs	AIDS Community workers
AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral Therapy
CD4	Cluster of Differentiation Antigen 4
CIH	Centre for International Health
FGD	Focus Group Discussion
HIV	Human Immunodeficiency Virus
IDI	In depth Interview
MRC	Medical Research Council
NORAD	Norwegian Agency for Development Cooperation
VCT	Voluntary Counselling and Testing
SD	Standard Deviation
SPSS	Statistical Programme for Social Science
TASO	The AIDS Support Organization
STIs	Sexually Transmitted Infections
UNAIDS	Joint United Nations programme on HIV/AIDS
UNCST	Uganda National Council of Science and Technology
UNICEF	United Nations Children' Education Fund

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1.0 INTRODUCTION

1.1 Study focus

The general motivation of the study was to explore the linkage between ART provision and resultant sexual behaviour in a sub-Saharan Africa setting. The idea was to provide an informed input to the design and implementation of HIV /AIDS prevention strategies.

1.2 Background

The over 2 million people on anti-retroviral therapy (ART) globally represent less than 7% of the 33.2 million people living with HIV/AIDS and slightly more than 25% of the 7.1million people in need of it (1, 2). Despite the advancement in HIV/AIDS care and treatment with the coming of ART, the epidemic continues to claim more victims.

HIV/AIDS prevalence in sub Saharan Africa is six times higher than global prevalence and more than 60% of the people living with HIV/AIDS globally are found in this region. Sub-Saharan Africa has more than 1 million people on ART and this number is increasing steeply. Despite this status of ART in Sub-Saharan Africa, there are both regional and inter-country variations in HIV/AIDS severity and number of people on ART treatment (1).

Since the on set of the epidemic, Uganda has been one of the most heavily affected countries in the world. Till now, over two million people have been infected and half of these have died leaving behind over 1million orphans(3). About 85,000-89,000 people are estimated to be on ART (1, 3). On the other hand, between 230,000 and 320,000 people are estimated to be in need of ART. Only 12% of the pregnant mothers have access to ART to reduce mother to child transmission of HIV.

Uganda is cited as one of the world's first HIV/AIDS prevention and control success stories. The HIV/AIDS prevention success in Uganda was built on the; abstinence, being faithful and condom use (ABC) strategy. HIV/AIDS prevention efforts based on these three pillars resulted into a national decline in HIV sero prevalence from 18% in 1992 to the current 7.6%.(1) Despite the increasing ART provision, Uganda' HIV/AIDS prevalence is reported to remain as high as 7.6% (1).

Clinical benefits of ART have been demonstrated globally. ART provision has been reported to lead to increased CD4 cell count, reduced viral load, reduced morbidity and mortality. Other reported benefits associated with ART include; prolonged life and positive health outcomes like increased energy and ability to get to work again (4-8). In contrast, the linkage between ART provision and sexual behaviour in the developed world remains inconclusive. An increase in risky sexual behaviour among the heterosexual, homosexual males and injecting drug users has been reported in the USA following ART treatment initiation. A higher incidence of sexually transmitted infections (STIs) among the ART users compared to non ART users has been reported in the USA as well. On the other hand, several European studies have demonstrated low rates of risky sexual behaviour among ART users (9-13).

Safe sexual behaviours/practices among ART/HIV/AIDS patients do not only boost the efficiency of the treatment but also helps to prevent further spread of HIV and re-infections (4, 14, 15). However, sexual behaviour studies from resource limited settings though still few have reported both safe and risky sexual practices among HIV infected ART users and none users. Studies from both Uganda and Ivory Coast have reported safe sexual practices among ART users and none users (5, 7). On the other hand, studies from South Africa and Uganda have reported risky sexual practices among the HIV infected due to the desire to have children (8, 16). In HIV care and management promotion of safe sexual practices is done by improving the patients' HIV related knowledge. Improved HIV related knowledge is attained through patient' education offered as counselling (14, 17-19). High knowledge levels about both HIV and ART were demonstrated by HIV infected outpatient clinic attendees in South Africa where patient education was operational (18). The entry point into HIV care and management is the uptake of voluntary counselling and testing services (VCT). VCT uptake also presents an opportunity to initiate promotion of safe sexual practices. This is done by offering HIV related information to the attendees during pre test and post test counselling. However, VCT uptake is still low as was the case among the South African villages and ART users' household members in Uganda.

Delivery of effective HIV therapies requires clear understanding of patient knowledge and behaviour. It is upon this, that appropriate treatment strategies and behavioural interventions should be designed and implemented (18). It has been argued that with the increasing access

to ART, the ABC strategy needs to be upgraded into the ART era to counteract possible complacency or treatment optimism and prevention fatigue (2, 3, 20).

1.3 Behaviour change theories

The health education model, also known as either the behavioural change approach or knowledge attitudes practice, is one of the so called social cognitive models. The model has often been applied to design and promote behavioural change efforts. On the other hand it is also often applied to measure trends in knowledge, attitudes and evaluate behavioural interventions (21-23)

The health education model asserts that increasing peoples' knowledge about risks and health hazards of a given behaviour is the first step in changing that behaviour. Increase in knowledge is achieved through factual information provision which is said to be from every well informed source. The model further asserts that increased knowledge will lead to a change in attitudes towards the health compromising or promoting behaviour in question. The model postulates further that the gained change in attitude will eventually lead to a behavioural change(24, 25). This change in behaviour is assumed to occur in the direction advocated for. Consequently, a reduction in disease, death and injuries is achieved because of the realised behaviour change.

In South Western Uganda, the model was applied at community and school levels to create HIV/AIDS awareness, promotion of behavioural change and evaluation of facility against home based delivery of VCT. The model was effective in creation of HIV/AIDS awareness and evaluation activities but it failed to yield sustainable behavioural change at community level (21-23, 26, 27).

The model targets individual and not the environment, and is therefore criticized for its inability to target causes of ill-health. The model ignores socio-economic factors like poverty, unemployment and other environmental factors which could be responsible for the practiced behaviour. Provision of limited preventive behaviour options to the recipients of the health education activities is another criticism of the health education model. All the possible preventive behaviour choices are determined and provided by the factual information source in a top-down fashion. This makes the model incompatible with local community norms, values and practices because it does not draw on them. The model assumes homogeneity

among recipients of health education activities. However, the way information is heard and interpreted is influenced by many factors; for example mood of the information recipients, perceived relevancy of the information, group membership among others (18, 19, 24-27).

1.4 Conceptual framework

This study adopted the health education model in spite of its failures in South Western Uganda because it illustrates a clear linkage between knowledge, beliefs and behaviour. These were the key issues which the study set out to investigate. Besides, the model enjoys a national wide application because of it has been embedded in the national HIV/AIDS prevention strategies (3). Further, the health education approach was adopted because it allows evaluation of previous behavioural intervention activities/programmes which were also central to the study. The study aimed at exploring the effectiveness of the model in promoting behavioural change by passing on knowledge to the study population. Knowledge provision activities in the form of counselling are directed to the study population within its framework. Then it also follows that effectiveness of the behavioural change efforts should be explored within the framework of the same model. Knowledge is passed on during voluntary counselling and testing prior to and after ART, continuous behavioural and treatment adherence counselling. These counselling sessions are organised as either a one-one or in groups (14, 19, 24, 25, 27).

2.0 OBJECTIVES OF THE STUDY

2.1 Problem statement and study justification

As it has been illustrated above, advances in treatment and HIV treatment optimism in particular may trigger risky sexual practices (13). With increasing access to ART, to counter possible behaviour inhibition and prevention fatigue appropriate behaviour interventions need to be designed and implemented based on clear understanding of ART clients' knowledge. Much of the literature about ART clients' sexual practices, HIV/AIDS and ART knowledge is from homosexual relationships in western countries. What is happening in heterosexual relationships ART clients' lives in Uganda in terms of sexual practices, HIV/AIDS and ART related knowledge are unknown. Very little research in sub-Saharan Africa have used ART clients as subjects to investigate beliefs associated with ART treatment, self health assessment and knowledge levels about HIV/AIDS preventive measures and their uptake. Knowledge of these can be the basis upon which new and existing HIV/AIDS preventive measures in South Western Uganda can be designed or improved respectively.

2.2 Objectives

The over all objective of the study was to explore the impact of anti-retroviral therapy on sexual behaviours among the Villa-Maria hospital clients, Masaka Uganda. The study specific objectives included;

1. To determine the ART clients' awareness levels about both ART and HIV/AIDS
2. To describe ART clients' VCT services use patterns prior to ART initiation
3. To Describe ART clients' sexual behaviours before and after they were enrolled in ART treatment.
4. To determine the extent to which ART clients adopt to HIV/AIDS preventive measures.
5. To explore the extent to which the health education model contributed to behaviour change among ART clients.

3.0 MATERIALS AND METHODS

3.1 Research setting and study area description

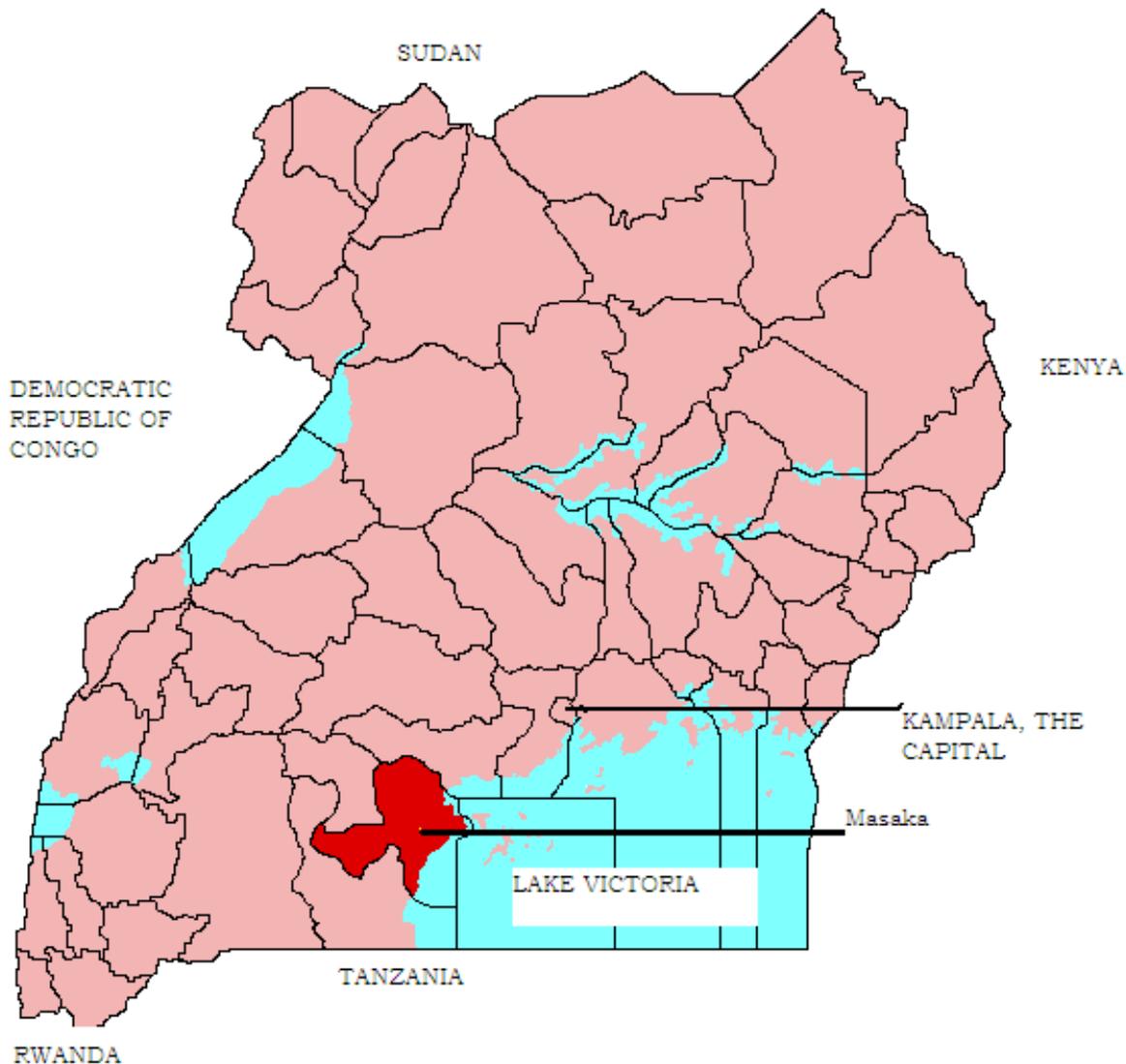
The study was conducted in Masaka district, Uganda. Uganda is a landlocked country found in East Africa. It is bordered by Tanzania in the south, Rwanda in the southwest, Democratic Republic of Congo in the west, Sudan in the north and Kenya in the east (28).

Masaka district which is located in south western Uganda was purposively chosen among other districts in Uganda. It was chosen because of the researcher's knowledge of the local language spoken and culture practiced by majority of the inhabitants. It is one of the key catchments areas of Villa-Maria hospital. Villa-Maria hospital was purposely chosen as a strategy of reducing the study costs. The researcher spent less on transport because the hospital is located within a walk-able distance from his home. The researcher spent less resources; time and money on transport while tracing the participants' homes. This was possible because the researcher was familiar with the hospital' immediate catchment areas. Participants whose homes where located either within or near the hospital premises, were traced by the researcher walking to the participants' homes. On the other hand, participants whose homes were located far away from the hospital premises the researcher traced them by home visiting them. Villa-Maria hospital rolled ART to its clients in 2004.

Villa-Maria hospital is about 80 miles from the capital city Kampala while it is about 10 miles from Masaka town. The hospital was established by missionaries and the Missionary sisters of Our Lady of Africa took over its management in 1902. Currently, the hospital catchment area has a population of about 215, 000 people. ("Bannabikira" : - daughters of Mary sisters are its managers). Health facilities offered by the hospital include among others; out patients` department, general hospital, nutrition unit, nurses' training school and antenatal clinic and laboratory services. The hospital also has a HIV/AIDS programme covering; voluntary counselling, routine counselling, antiretroviral treatment and other HIV/AIDS related treatment, care and support activities (29).

Figure 1; Map of Uganda showing the location of Masaka district.

Source: http://en.wikipedia.org/wiki/Masaka_District



3.2 Study design

The study took a cross sectional design. Primarily qualitative methods were applied to collect data while background variables were collected using quantitative methods to enhance the

data quality. Data on sexual practices variables was collected using both qualitative and quantitative data collection tools.

3.3 Ethical consideration

The study protocol was reviewed and approved by the Uganda National Council of Science and Technology (UNCST) and permission from the hospital administration was obtained.

The potential participants were informed of the study through the hospital counsellors and hospital medical staff. More information about the study was provided to the participants by the researcher and the research assistants. It was emphasised that participation in the study was voluntary and that participants were free to withdraw from the study anytime.

Participants were further assured of confidentiality. Written and verbal consent were obtained for those who could read and write and those who could not, respectively. Interviews with those who were eligible, selected and who agreed to participate were held in privacy.

3.4 Study population and sampling

The study population were the ART clients from Villa-Maria hospital home care mobile AIDS programme during June-September 2007. A purposive convenient sampling technique was employed to select study participants. Sampling was done till the researcher was unable to fund any extra data collection activity. The sampling was done every Monday. This was because ART clinic for drug refills operated every Monday. The ART drug refills were run at either the hospital or at the outreach clinics. Study participants were selected as the one who turned up first for the ART drug refill. Application of purposive sampling technique was justified by;

1. The researcher' interest in gaining deeper insights and understanding from within the subjective reality of the participants.
2. Desire to have thick detailed descriptions from a small manageable sample size against the limited resources the researcher had.
3. Hardships of getting closest to the subjective reality and the sensitive nature of sexual practices, HIV status and ART taking called for openness, accessibility and willingness of the participants to share their unique experiences (30)

The following inclusion criteria were used;

1. Aged 18years and above.
2. Having been on ART treatment for at least six months and above.
3. Resident of Masaka district for at least the last six months or above.
4. Consented to participate in the study.

Exclusion criteria included the following;

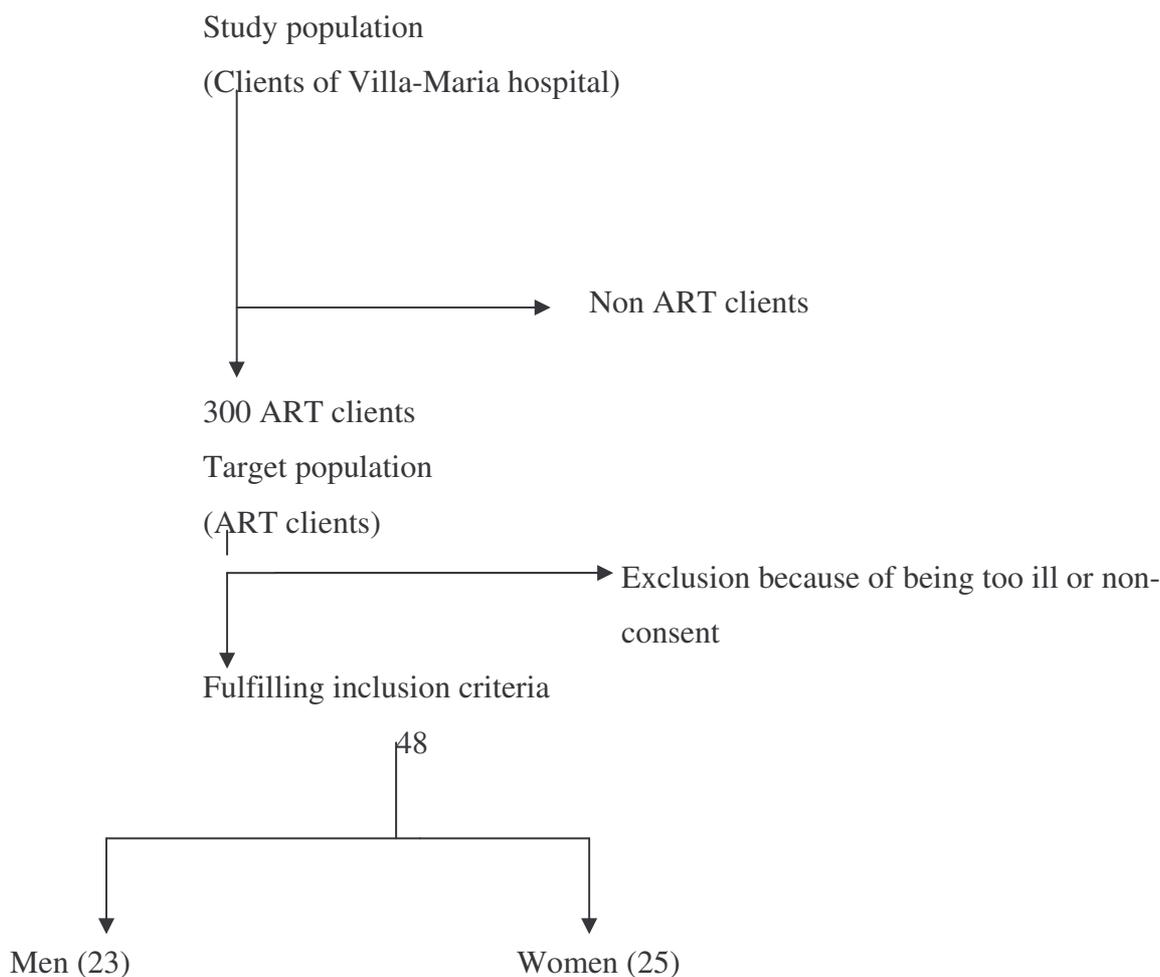
1. Too ill to take part in the study
2. None -consent to participation

Potential participants were approached and informed of the study when they came for their ART drug refills. This happened either from the main clinic at the hospital or from the outreach clinics. Upon consenting to take part in the study, the client's provided directions to his /her village and home. Village based AIDS community counsellors (ACWs) were approached to help in tracing the clients' homes. A trip to the client' home would then be made to agree on a date for the in-depth interview. In case of a focus group discussion, a client's home would be located with a promise to contact them later. When the required number was raised, they were then informed of the date and the venue of the focus group discussion. In-depth interviews were conducted from the participants' homes while focus group discussions were held from the main clinic, outreach clinic or from the local council II headquarters. Local council II are administrative units at parish level in Uganda. These venues were used because they were suggested by the participants.

3.5 Sample size

In total, 48 participants took part in the study. Participants were distributed between, 16 in-depth interviews (IDIs) and 4 focus group discussions (FGDs) with 32 participants were included in the study. All the participants completed questionnaire with basic socio demographic variables. Potential participants near the hospital (main ART clinic) were given priority. This was because of the high cost of mobilisation for data collection. High costs were realised through the frequent field trips which had to be made while mobilising the participants.

Figure 2; Study profile



3.6 Pilot study /Pretesting data collection tools

Villa-Maria hospital ART clients who had not yet made 6 months on the treatment were used for developing the data collection tools namely; questionnaire, interview and focus group guides. The data collection tools' developing exercise was used to check the clarity, suitability and the logical flow of the questions. Through the piloting study, the duration of the IDIs and FGDs sessions were independently estimated. It was also established that the majority of the questions were clear, acceptable and easy to answer. On the other hand, minor adjustments on repetitive questions were made to shorten the data collection tools.

3.7 Data collection

Data collection was carried out between June-September 2007. Two main data collection methods were used to collect data. These were; 1. In-depth interviews (IDIs) with 16 participants using an interview guide. The interview guide topics included questions about ART and HIV transmission dynamics, HIV prevention measures, voluntary counselling and testing and sexual behaviour practices. In-depth interview responses on sexual practices were quantitatively recorded in a table divided into; before HIV testing, after HIV testing but before ART initiation and more than six months after ART initiation phases. This was aimed at easing quantitative data entry of this variable. 2. Focus group discussions (FGDs) with 32 participants distributed evenly in 4 groups. The 4FGDs were evenly distributed across the female and male participants. No study participant took part in both focus group discussions and in-depth interviews. The focus group discussions were conducted using a focus group topic guide. The topic guide had similar topics as the in-depth interview guide. This was aimed at checking for consistency and validating of the responses obtained from in-depth interviews against the community opinions about the same issues.

Both the IDIs and FGDs, participants' socio-demographic information was collected using a quantitative semi-structured interviewer administered questionnaire. The semi-structured questionnaire was administered first to all the FGD participants. Later on, the participants converged for the focus group discussions. Each questionnaire was checked for completeness after it had been administered. Both in-depth interviews and focus group discussion were tape recorded.

The researcher conducted all the 16 in-depth interviews and also administered the entire 16 semi-structured questionnaires to the in-depth interviews' participants. Semi-structured questionnaire administration to all male FGD participants and all 4 FGD moderation was also done by the researcher. On the other hand, a female research assistant who was fluent in both English and Luganda languages administered the semi-structured questionnaire to all female FGD participants. She was also the note taker in all the 4 FGDs. The research assistant underwent a three days' intensive training and was informed of the study objectives. She was also trained on how to obtain an informed consent, how to administer a questionnaire and how to take notes in a FGD. The justification for a research assistant omission and introduction at the IDI and FGD stages respectively was both money and workload. At the

IDI stage, the researcher was in a position to schedule work according to his ability. Inability to pay the research assistant at the IDI stage further justified the decision to do without one. However, at the FGD stage, the researcher could not do all the work by himself. He was also in position to pay the research assistant for the two days on which FGDs were held. Besides, inclusion of a female research assistant for female FGDs was thought to limit bias because of under/over reporting and social desirability.

3.8 Data entry and analysis

Quantitative data was coded and entered into a computer using SPSS version 14.0 and descriptive analysis was done using the same soft ware.

Qualitative data was transcribed, typed, translated, and proof read by the researcher. It was later entered and transformed into word rich text format files. Content thematic analysis was used to analyse qualitative data. This is a technique of extracting the desired information from a text through systematic and objective identification of specified traits of the text. Content analysis was chosen because it allows comparison between data from different sources. Data was read over and over. This was done as a way of getting familiar with it and preparing for the analysis. Through this activity, emerging themes were identified. These are the themes to which content analysis was applied (30, 31).

4.0 RESULTS

4.1 Socio -demographic characteristics of the participants

Of the 48 participants who were interviewed, 25 were females and the remaining 23 males. The participants' mean age was 40 years. The majority of the participants were Christians (92%). More than half of the participants were married (58%) with peasant farming as the main source of income (77%). The mean number of dependants per participant was 4 people. Half of the participants had attained upper primary (5-7) school education level. The proportion of participants with either secondary (1-4) or lower primary (1-4) school education level was 21% in each case. The participants had to travel an average of 18 Km to the ART / CVT clinic /centre. Participants had on average been treated with ART for a period of approximately 18 months.

Table 1; Socio-demographic characteristics

Variables	n	(%)
Sex		
Female	25/48	(52.1)
Male	23/48	(47.9)
Age (Years)		
Mean (SD)	41.04	(8.932)
Religious affiliation		
Anglicans	2/48	(4.2)
Catholics	30/48	(62.5)
Pentecostals	12/48	(25)
Moslems	4/48	(4.2)
Marital status		
Married	28/48	(58.3)
Separated /divorced	4/48	(8.3)
Widowed / single	16/48	(33.3)
Level of education		
Nil	4/48	(8.3)
Lower primary (1-4)	10/48	(20.8)
Upper primary (5-7)	24/48	(50)
Senior (1-4)	10/48	(20.8)
Sources of income		
Peasantry farming	37/48	(77.1)
Peasantry farming and small scale business	11/48	(22.9)
Number of dependants		
Mean (SD)	4.08	(1.955)
Distance to ART/VCT clinic /centre (KM)		
Mean (SD)	18.04	(6.441)
Duration on ART (Months)		
Mean (SD)	17.7	(6.093)

4.2 Knowledge about HIV/AIDS and ART

During the in-depth interviews, participants' knowledge levels about HIV/AIDS were explored by asking them about modes of HIV transmission, HIV preventive measures, their experiences related to HIV/AIDS and difference between HIV and AIDS. On the other hand, knowledge levels about ART were explored by asking participants their sources of information about ART. Participants were also asked to mention other agencies they knew that provided ART in their district. More detailed information about ART was obtained by asking participants about the procedures they were subjected to in the course of getting started on ART and what each step contained.

Focus group discussions participants were also subjected to the same set of questions. This was a way of checking for validity, consistency and contradictions. Analysis of results for the knowledge about both HIV/AIDS and ART is organised in five broad but related themes. These include; knowledge about HIV transmission, HIV preventive measures and experiences of living with HIV/AIDS. The other themes include knowledge about HIV/AIDS differences, knowledge about ART and the procedure to initiate it.

4.2.1 Knowledge about HIV/AIDS transmission

All the in-depth interviews participants demonstrated knowledge of how HIV is transmitted. All of these participants mentioned at least two modes of HIV transmission. The most commonly mentioned mode of HIV transmission was the unprotected heterosexual intercourse where one of the partners was HIV positive. On the other hand analysis by sex revealed that male participants mentioned mother to child HIV transmission less compared to the female participants. All the 7 female interviewed demonstrated knowledge of mother to child HIV transmission while only 2 of the 9 males interviewed exhibited this knowledge. This response pattern was also revealed by the focus group discussions. Female focus group discussion participants discussed in details both the heterosexual and mother to child HIV transmission modes compared to the males' ones which centred more on the heterosexual mode of HIV transmission.

The following quotes illustrate our study participants' understanding of the dynamics of HIV spread and under what circumstances might HIV preventive measures be ignored.

A person with many sexual partners, he plays sex with his wife, then with this one and the other one as well yet he is not using a condom. Through this behaviour, HIV spreads further.

(46 year old widower in-depth interview participant).

HIV spread starts from fun places. That is where people usually meet and end up having unprotected sex. While there, we entice each other into having sex. After one or two alcoholic drinks, then people forget about all to do with HIV/AIDS. Do you see how HIV (contraction) comes in? Otherwise, you can not find me in garden and you request me for sex. It is the fun places that attract such misbehaving and the spread of HIV.

(43 year married male in-depth participant).

To us women, we pass on HIV to our children during pregnancy, delivery and breast feeding. As long as there is blood contact between you and that of the baby, if you are (HIV) infected, even the baby gets infected as well.

(female focus group discussion participant).

4.2.2 Knowledge about HIV preventive measures

All in-depth interviewees exhibited knowledge of HIV preventive measures. The HIV preventive measures that were reported by all the in-depth interviewees were; faithfulness, abstinence and consistent condom use. This is consistent with the main message from the ABC campaign. There were variations in the responses about how to use a condom. Although a large majority of the in-depth interviewees reported that the condom had to be used consistently and rightly during every sexual encounter, three female in-depth interviewees could not explain the condom use procedure. Prevention of mother to child transmission was largely mentioned by the women still in productive age. Voluntary counselling and testing (VCT) was the least mentioned HIV preventive measures across all the in-depth interviewees. Focus group discussion participants' knowledge about HIV preventive measures did not differ greatly from the views expressed by in-depth interviewees' responses. The only

difference which emerged was which HIV preventive measures dominated the discussions. Female focus group discussions tended to report a wide range of HIV preventive measures. Voluntary counselling and testing, prevention of mother to child transmission (Neverapine use) were reported in addition to abstinence, condom use and faithfulness. On the other hand, in the male focus group discussions voluntary counselling and testing was never mentioned while prevention of mother to child transmission was only partially discussed in one group. The male focus group discussions participants discussed more the issues of reducing the number of sexual partners and condom use.

The following quotes demonstrate further knowledge about modes of HIV transmission and preventive measures.

Pregnant mothers (women) start going to the hospital when the pregnancy is still young. The health care provider explains to them what they should do to avoid infecting their babies with HIV during delivery and breast feeding.

They give you a pill to take when the pregnancy is still young and another pill when you get the labour pains. They even cut the umbilical cord carefully and prevent the mother' blood from mixing with that of the baby.

(female focus group discussion).

Being faithful to one's sexual partner prevents HIV. You should have a good heart of not wanting to infect others with HIV.

(male focus group discussion).

I don't know of any other HIV preventive measure other than (consistent) condom use and abstinence.

(Male focus group discussion).

Besides condom use, abstaining completely from sex and it is the only solution,

(a 43 year old married male in-depth interviewee).

4.2.3 Experiences of living with HIV/AIDS

All the in-depth interviewees reported similar knowledge revealing experiences of living with HIV/AIDS. However, this was more common with female in-depth interviewees. These were

more open and also reported experiences of attending to HIV/AIDS patients. On the other hand, male in-depth interviewees only reported experiences of living with HIV/AIDS limited to themselves. Never the less, in-depth interview participants' experiences of living with HIV/AIDS commonly identified diseases /illnesses like diarrhoea, recurrent fever, herpes-zoster and skin rash were to have occurred at some time in point. Other common diseases/illnesses reported included; red lips, sores, hair loss, boils and weight loss. Focus group discussion participants also reported experiences of living with HIV/AIDS which demonstrated their detailed knowledge about it. All the FGDs discussed freely and in equal details experiences of living with HIV/AIDS experiences. There was no variation in openness and varied experiences discussed between male and female focus group discussion participants as was the case with in-depth interviewees. The quotes below further demonstrate in-depth interviewees and focus group discussion participants' experiences of living with HIV/AIDS

When the health workers told me that I had AIDS I had lost weight, sores all over the body and on and off diseases like fever, diarrhoea, swellings, herpes-zoster, hair loss, and boils under the armpits and in the genitals.
(33 year old breast feeding in-depth interviewee).

My husband had boils, red lips and had lost weight. He was in a poor health state,
(female focus group discussion)

4.2.4 Knowledge about contrast between HIV and AIDS

Irrespective of the in-depth interviewees' sex and age, large majority of them illustrated capacity to differentiate between HIV and AIDS. HIV infection was explained to be a condition which leads to a weakened ability to fight off infections. This gives way to a dangerous condition where one acquires several infections at ago. This condition was reported to be AIDS and that it occurs after many years of HIV infection. Both in-depth interviews and focus group discussions revealed that substantial weight loss and positive behavioural changes caused suspicion of HIV infection among the community members. Other causes of HIV infection suspicion were; loss of more than one sexual partner, on and

off fever, frequent visits to the hospital or hospital staff frequently visiting one's home. This pattern of reporting was uniform in both in-depth interviews and focus group discussions. A few in-depth and focus group discussion participants could not differentiate between HIV and AIDS. These participants reported although the counsellors had told them that HIV was not AIDS to them HIV could not be separated from AIDS. All in-depth interview and in all focus groups discussions, participants maintained that one's HIV positivity or negativity could only be established by a HIV test although their experiences could also cause HIV/AIDS infection. The quotes below illustrate that.

Weight loss also indicates HIV infection. For instance, before I got to know that I was HIV positive, I weighed 70kgs. By the time, I went for an HIV test, I weighed 40kgs. This shocked me so much, (47 year old female in-depth interviewee).

I started with fever which did not go. I used to seek treatment from the health care providers. They would give me injections but the fever would not go, (female focus group discussion).

Before you test for HIV, you can not know whether you have it or not, (male focus group discussion)

4.2.5 Knowledge about ART sources

When participants were asked how, where and from whom they got ART information, a number of information sources were reported. All in depth interviewees reported two main sources. These were the hospital staff and the health care providers. Other sources of ART information that were reported by a fair majority of in-depth interviewees (11/16) included; radio programmes and the village based community health workers trained by the hospital ART programme. Focus group discussions reported the same sources of ART information. None of these ART information sources was more reported than the other in the focus group discussions. Sources of information about ART are illustrated in the quote below.

The programme and the community counsellors go on spreading information about ART. Some community members who want to test for HIV and start (ART) treatment get information from us who begun it first. For us on the (ART) treatment,

we get more information through the sensitization (counselling) sessions when we go to collect more pills. We share information with fellow clients, (46 year old in-depth interview widowed participant).

4.2.6 Knowledge of other ART providing agencies

Besides the Villa-Maria hospital based ART programme almost all in-depth interviewees (15/16), reported an extra ART providing agency in Masaka district. Knowledge of the other ART providing agencies in Masaka district was further confirmed in all the focus group discussions. The ART providing agencies reported in both in-depth interviews and focus group discussions included; Kitovu mobile AIDS programme, Medical research council (MRC), The AIDS Support Organization (TASO) and Uganda cares. However, participants also reported that few of these agencies were based in rural communities save for Villa-Maria hospital AIDS and MRC. None of these agencies was reported to be operational in the immediate coverage area of Villa-Maria hospital and in the rural communities save for the MRC and the hospital AIDS programme. When participants were asked what influenced their choices of the agencies to attend to, minimal financial cost and proximity to the ART providing agencies were reported as major determining factors for attending Villa-Maria hospital AIDS programme.

4.2.7 Knowledge about ART and the procedure to initiate it

A great majority of the in-depth interview (12/16) participants narrated chronologically steps involved in the procedure of initiating ART. The other in-depth interviewees also narrated the procedure of accessing ART though not chronologically. However, these in-depth interviewees tended to be younger compared to the mean age and they were equally distributed across the sexes. Pre- and post- test counselling as well as HIV testing were reported as the beginning steps in the ART initiation process. Taking a CD4 cell count test and health education (adherence counselling) were the next and final steps respectively in the process of initiating ART. It was reported that health education is continuous and was offered at every drug refill. In all the focus group discussions, identical steps were reported chronologically. However, focus group discussions revealed that only HIV positive people

with a CD4 cell count test of 200 and below could be started on ART treatment while those whose CD4 cell count tests were above 200 were initiated on daily septrin. Additional details about the CD4 cell count were revealed in all the focus group discussions. These included; Regardless of ART status, all the hospital AIDS programme patients were subjected to a regular CD4 cell count test. The CD4 cell count testing interval ranged from three to six months. The CD4 cell count test was reported to serve as a monitoring tool for ART clients' health. On the other hand it was also reported to serve as an ART initiation screening purpose.

In all the in-depth interviews and focus group discussions, it was reported that pre- and post-test counselling centred on; modes of HIV transmission and preventive measures. On the other hand health education (adherence counselling) focused on ART do's and don'ts of ART treatment. Safe sexual practices, immediate health seeking and nutritional topics as well as general information about ART were also reported to be covered during the health education sessions. This was also reported by all in-depth interviewees and in all focus group discussions. The do's and don'ts were reported to include; none use of traditional/herbal medicine, taking ART daily and on time. Other ART rules reported included; stopping cigarettes' smoking and or / alcohol consumption. None observance of these do's and don'ts was reported to lead to HIV drug resistant strains and side effects in all the focus group discussions and great majority of in-depth interviews.

All in-depth interviews participants reported that ART was not a cure for HIV/AIDS could not offer protection against HIV re-infection and passing it to others. Rather a treatment that suppresses the HIV virus and that it was a life time treatment. Similarly, all focus group discussions reported it.

*When we started to take ART, they taught us that you have to swallow these drugs daily and you have to swallow them on time because HIV does not die but ART keeps it in one place and it stops multiplying or moving. But a cure hasn't yet been found. That is why they stress it that you have to take the drugs on time so that you don't give the HIV virus a chance to be active again. If you take at 8.00 it has to be 8.00 in the morning and 8.00 in the evening. They told us that we also had to stop using our local (herbs) medicines now that were starting ART. They told us that these traditional herbs we use hinder the action of ART. And if you use both at the same time, you might take an over dose,
(male focus group discussion).*

They first test you for HIV and later they also do a CD4 cell count test. If you have less than 200 CD4 cells, they sensitise you for three days and start you on the new medicine (ART).

(male focus group discussion).

While teaching us the counsellors gave us the rules governing ART. Rule number one is; timing of the swallowing ART, storage of ART, avoiding alcohol and marijuana, avoid having sex with out a condom. When you choose to swallow the ART tablets at 9:00am, then, you have to stick to that. Not any other time like at 2:00pm, 3:00pm or noon. We were told not to use traditional herbal medicines. The ART we are given is also medicine from herbs so you might end up over dosing yourself when you use traditional medicines jointly with ART. They told us to use condoms while having sex.

(46 year old widowed in-depth interviewee).

We were taught that whenever having sex, you should use condoms. If you don't use condoms, this makes your HIV resistant. We were prohibited from taking alcohol and using herbs. We were told that we should not share drugs (ART). Even if you are a family, each member should have his/her dose. Sharing the drugs spoils (lowers) the dose. We were told not to share it,

(female focus group discussion).

We were taught that we had to feed properly and to take plenty of drinks but not to drink alcohol. Drink clean water that is treated with water guard. Feeding doesn't mean eating meat but you should eat greens, groundnuts. And even fruits can help you. We were taught that we are to take ART for the rest of our lives. When your life ends, is when you stop,

(male focus group discussion).

4.3 Prior use of VCT services before ART initiation

Participants' experiences with VCT services were explored. Participants were asked how often they had used VCT services before their first HIV positive test result. Also explored were the triggers and hindrances of taking an HIV test. All in-depth interviewees reported that their first HIV positive test result was their very first attempt to use the VCT services. Pieces of advice from the health care providers, close friends and relatives in addition to persistent sickness yielded the decision to seek the VCT services. The decision to seek the VCT services was reported as an attempt to mitigate the persistent sicknesses. The identified persistent sicknesses included; headache, fever, herpes-zoster and diarrhoea. On the other hand, reported barriers to VCT services utilization included distance to the VCT centre, healthy feeling and therefore no need to test for HIV, fear of knowing one's sero-status and desire not to worry after VCT use.

The reporting from all the focus group discussions was similar to in-depth interview one. However, female focus group discussion participants reported that men delayed more than women to seek VCT services.

*I was resistant to go for the HIV test because I never wanted to worry myself.
(a 43 year old married male in-depth interview participant).*

*The main reason which prompted me to test was that I used to be sick all the time. I would be well in the morning but sick in the evening. I would go to dig and come back very sick and one could even think they had bewitched me. I was like that for a period of one year and I eventually decided to go for a test at the hospital for an HIV test. I used to hear health care providers talking about signs of HIV/AIDS infection. They told me I had HIV/AIDS.
(a 47 year female in-depth interview participant)*

*I used to be sick all the time and my friends advised me to go to hospital and test (for HIV) so I went and took an HIV blood test.
(female focus group discussion).*

I had been treated for TB (tuberculosis) and the doctor advised me to take an HIV test.

(a 50 year old male in-depth interviewee)

If a man doesn't become bedridden, he cannot test for HIV. Men have strong hearts.

(female focus group discussion).

4.4 ART use and support outcomes

In-depth interviews participants' experiences were explored to help establish ART use outcomes. Specifically, ART use positive outcomes were explored by asking in-depth interviewees to mention, describe and explain what they had gained and as a result of ART use. On the other hand, ART use negative outcomes were explored by asking in-depth interviewees to state, describe and explain demerits and challenges encountered because of being on ART. Focus group discussion participants were also subjected to the same set of questions. This was a way of obtaining contradictions, validity and consistency. Analysis of results for the ART use outcomes is organised in two themes namely; benefit of ART use and side effects and challenges of ART use.

4.4.1 Benefits of ART use

All in-depth interviewees reported to have benefited from ART use regardless of their socio-demographic characteristics. The benefits that were most frequently mentioned included; reduced occurrence of illness/ill health, regained health, increased levels of energy and a larger involvement in work activities again. Similarly, all focus group discussions also reported benefits of ART use in the same way as in-depth interviewees. On the other hand, a great majority of in-depth interviewees (14/16) reported the continuous home visits as a benefit of ART use. These visits were reported to be done by the hospital staff; counsellors, social workers and village based community health workers medical. These continuous home visits were reported to hinder further spread of HIV and to promote health seeking behaviour among those who had never used the VCT services. In contrast to in-depth interview reporting, all the focus group discussions, reported that although openness of ART taking and HIV sero-status were prerequisites for ART initiation, the continuous home visits caused HIV infection suspicion among the community members. In all the focus group discussions,

routine home visits were criticised for working as a trigger for stigmatisation. However, no participants reported being a victim of stigmatisation. Never the less all focus group discussions agreed with the other benefits of ART use reported in in-depth interviews. The agreement about the benefit of ART use was uniform across the focus group discussions.

When you take it (ART), you get strength to do your work. You become healthy and regain the life you had before you got HIV. You stop getting recurrent infections. I used to get fever. I used to get sores in the private parts. I was down with these legs paralysed for three months. I used to get abscesses. I used to feel feverish every evening, would get fever and shiver I would just get to my bed. I used to be in a poor health condition. But ever since I started (ART), all that is now history. I no longer experience all that. I stopped getting and feeling them.

(50 year old married female in-depth interviewee)

Now I can manage my work, I can spend the day in the garden without experiencing any hardship. I have energy to work. I have really gained out of ART use. I can meet my children's fees. I regard my self as some one with HIV and as some one that regained energy although not as before. I still use the medicine because I'm quite aware that I the virus (HIV) is not dead. I still have it. I have to come out cohabiting and legalise my marriage. I had even planned to do it in this current year and I think it may be possible. But before that I want to renovate this house first since I have regained the energy. You see those bricks there in the compound. I will even make more. I have already bought the iron sheets,

(a 41 year old male married in-depth interviewee).

Well, before they introduced ART, one would slim slowly by slowly. One would get fever that did not go yet he/she was getting treatment but the fever wouldn't go. Or he/she would vomit and also get diarrhoea. We did not have any solution to that. All the medicines had failed. They would say he/she has HIV/AIDS. That one is finished (going to die).

(male focus group discussion).

4.4.2 ART side effects and challenges of its use

Although all in-depth interviewees exhibited awareness of potential ART use side effects, only four reported having experienced any ART use side effects. A great majority of in-depth interview participants reported that experiencing ART side effects was an indication of non observance of ART rules.

If you don't know how it is taken, you can even die. It kills you there and then.

There were some, who got admitted to hospital because they tried to take it improperly,

(a 50 year old married female in-depth interview participant).

Also in all the focus group discussions, participants confirmed earlier reporting of the in-depth interviews that experience of ART side effects meant non observance of ART rules. However, both in depth interview focus group discussions participants uniformly reported having experienced night mares.

ART first causes you hallucinations and you see lakes. You have dreams when you are falling into water, animals, what not,

(female focus group discussion).

On the other hand both groups of participants identified increased food appetite and as challenges of ART use.

You get appetite for food and you get hungry all the time. Before I started on ART I couldn't eat but since I started it, I eat too much,

(a 31 year single female in-depth interviewee).

4.5 Reported sexual practices

Sexual practices were explored from the prior to HIV testing era through post test to the ART period. Sexual practices were explored by use of both qualitative and quantitative data collection tools. More details about sexual practices were explored using in-depth interviews. Validity, consistency and contradictions were followed up during focus group discussions as a check on the in-depth interview data. Condom use or non use, frequency of sexual intercourse, and number of partners were the key topics for both in-depth interview and focus group discussion guides. Analysis of sexual practices was done by three broad themes namely;

reported sexual practices before HIV testing, reported sexual practices after HIV testing and reported sexual practices after ART initiation eras. Under each of these three broad themes are the sub themes which emerged out. These sub themes include; sexual activity, condom use, frequency of sexual intercourse and number of sexual partners.

4.5.1 Reported sexual practices prior to HIV testing

Findings are presented under the key topics which were applied to investigate sexual practices. The themes which emerged from the key topics of sexual behaviour investigation are the stated sub themes mentioned under 4.5 above. It is these sub themes which are used to presented the reported sexual practices during prior to HIV testing era.

4.5.2 Sexual activity

Of the 16 in-depth interviewees, 9 were male and the remaining 7 females. Of the 16 in-depth interviewees, 11 and 5 reported being sexually active and sexually inactive respectively, prior to HIV testing. Of the males, 6/9 reported being sexually active while 5/7 of the females reported the same. All in-depth interviewees who reported being sexually active, were either married or cohabiting (table 2). On the other hand, all sexually inactive male in-depth interviewees reported separation or divorce as the reason for their sexual inactiveness. Females compared to males in-depth interviewees reported being sexually inactive because of either separation / divorce or widowed. Female in-depth interviewees reporting sexual inactivity due to separation /divorce were equal to those reporting sexual inactivity due to being widowed. In all the focus group discussions, it was further reported that partner loss and separation/divorce were the causes of sexual inactiveness prior to HIV testing. However, in the female focus group discussions, it was also reported that sexual inactiveness due to partner loss or separation was more common to women. The female focus group discussions participants reported that most men had more than one sexual partner. This was argued as an alternative source of sex even when partner loss and separation occurred.

*“I have been abstaining ever since I lost my husband”,
(a 37 year old widow.)*

4.5.3 Number of reported sexual partners

Of the 11 in-depth interviewees who reported being sexually active, 7 reported having had multiple sexual partners prior to HIV testing. Of the 7 in-depth interviewees who reported multiple sexual partners prior to HIV testing 5 were males while 2 were females. In contrast, the 4 in-depth interviewees who reported only one sexual partner prior to HIV testing only 1 was male while the 3 were females (table 2). In all the focus group discussions, women's having multiple sexual partners was reported to be rare. Its occurrence was pegged to having an irresponsible husband; one who did not provide the basic home needs like salt, soap and paraffin.

*Before I tested for HIV, I had three sexual partners who used to help me with basic needs like salt, soap and paraffin because my husband used to stay away from home for long periods of time and I could not afford them at times,,
(a 41 year old male married interview participant).*

4.5.4 Frequency of sexual intercourse per week

Of the in-depth interviewees who reported being sexually active prior to HIV testing, 8/11 reported having had sexual intercourse of more than two times a week in the same time period. Male and female in-depth interviewees who reported to have had more than two sexual intercourse episodes per week prior to HIV testing were 4/6 and 4/5 respectively. On the other hand 2/6 male and 1/5 female in-depth interviewees reported less than two episodes of sexual intercourse per week prior to HIV testing (table 2).

Both male and female the focus group discussions, reported that prior to HIV testing was an era of enjoyment. Focus group discussion participants reported that they used to have sex any time they felt like prior to HIV testing. The reported reason for this practice was that they felt healthy and had nothing to worry about as the quote below illustrates.

*I used to have sex four times with my wife and three times with the extra-marital partners before I tested for HIV. When, I tested slowly by slowly I dropped my extra marital partners and some died off,
(a 49 year male married interviewee).*

4.5.5 Condom use

None of the in-depth interview participants reported having used condoms prior to HIV testing. This was the same reporting in all the focus group discussions. In both the focus group discussions and in-depth interviews participants reported that there was no need to use condoms because they felt healthy, strong and did not perceive themselves to be at risk of HIV acquisition.

*Before testing for HIV, people were having sex without condoms,
(male focus group discussions).*

Table 2; Reported sexual practices of in-depth interviewees prior to taking a HIV test

Variables	Men (n=9)	Women (n=7)	All (n=16)
Marital status			
Married/cohabiting	6/9	5/7	11/16
Separated/divorced	3/9	1/7	4/16
Single/widowed	0/9	1/7	1/16
Sexual activity			
Sexually active	6/9	5/7	11/16
Sexually inactive	3/9	2/7	5/16
Condom use			
Used	0/6	0/5	0/11
Not used	6/6	5/5	11/11
Frequency of sexual intercourse per week			
>2	4/6	4/5	8/11
<2	2/6	1/5	3/11
Number of Sexual partner			
Only 1 partner	1/6	3/5	4/11
More than 1 partner	5/6	2/5	7/11

4.6 Sexual practices after a HIV test but before ART initiation

Key topics applied to investigate sexual practices prior to an HIV test were maintained while exploring sexual practices after an HIV test but before ART initiation. This was aimed at allowing comparison between sexual practices prior to an HIV test and after the test but before ART initiation. Findings are also presented under the same emerging sub themes as those presented under 4.5 above.

4.6.1 Sexual activity

Of the 16 in-depth interviewees, 9 reported being sexually active after HIV testing but before ART initiation compared to the 11 in-depth interviewees who reported the same prior to HIV test. Being sexually active was reported by 4/9 male in-depth interviewees while 6/9 male in-depth interviewees who reported it prior to HIV testing. The decline in sexual activity was due to partner loss by two male participants and those who had earlier reported being separated considered themselves as being single. On the other hand, in spite of the reported changes in marital status, female in-depth interviewees who reported being sexually active both prior and after HIV testing was uniform at 5/7. Being married /cohabiting among the female in-depth interviewees was reported by 3/7 compared to 5/7 who reported it prior to HIV testing. More still, among the female in-depth interviewees being single /widowed was also reported by 3/7 compared to 1/7 who reported it prior to HIV testing. On the other hand being separated /divorced remained uniform at 1/7 (tables 2 and 3). The increase in single/widowed reporting was attributed to partner loss and failure to use condoms consistently by the male partner(s). Focus group discussion reporting was divided along male and female participants' perspectives. Male focus group discussion participants agreed with the earlier in-depth interview reporting that partner loss led to sexual inactiveness. However, they also added that discordant HIV test results caused tension and misunderstandings between the partners and also contributed to sexual inactiveness. On the other hand the female focus group discussions maintained that sexual inactiveness was due to partner loss and male partner refusal to use condoms. In an effort to save their lives, women decide to walk out of their marriages/relationships and become single.

Ever since my wife died, I have never had sex (sexual intercourse) again.

(a 47 year old male in-depth interviewee).

4.6.2 Number of sexual partners

Of the 9 in-depth interviewees who reported being sexually active interview participants, 7 reported having only 1 sexual partner compared to 4/11 who reported it prior to an HIV test. Of the in-depth interviewees who reported being sexually active, having only one sexual partner was reported by 3/4 and 4/5 of the male and female interviewees respectively. However, prior to a HIV testing, having only 1 sexual partner was reported by 1/6 and 3/5 male and female in-depth interviewees who reported being sexually active respectively (table 2 and 3).

In all the focus group discussions, a decrease in the number of sexual partners among people, the participants knew that had taken an HIV test was reported. Health education given as pre- and post-test counselling and the subsequent health education (counselling) were the reasons identified to be behind reduced number of sexual partners. This was reported in both in-depth interviews and the focus group discussions.

After I had had an HIV positive test, I was advised by the counsellor not to have sex with any sexual partner outside my marriage. Slowly by slowly I dropped the extra-marital sexual partners I had before I tested for HIV, (a 43 year old monogamously married male in-depth interviewee).

4.6.3 Frequency of sexual intercourse

Of the 9 in-depth interviewees who reported being sexually active, 3/9 reported sexual frequency of more than two times a week. On the other hand prior to HIV testing, sexual frequency of more than two times a week was reported by 8/11 of the in-depth interviewees who reported being sexually active sexually active then. Of the male in-depth interviewee who reported being sexually active, 1/4 reported sexual frequency of greater than two times a week. Compared to prior to HIV testing era, of the male in-depth interviewees who reported being sexually active 5/6 reported sexual frequency of more than two times a week. On the other hand, of the female in-depth interviewees who reported being sexually active, 2/5 reported sexual frequency of more than two times a week. However, prior to HIV testing, female in-depth interviewees who reported being sexually active and reported sexual frequency of greater than two times a week were 3 /4 of those who reported being sexually active (tables 2 and 3).

In all the focus group discussions, it was reported that after the HIV test, the occurrence of sexual intercourse had decreased. However, in addition the female focus group discussions reported that men insisted on having sex even when their partners were weak. The reported reasons for the reduced frequency of sexual intercourse from both interviews and focus group discussions were being sick and weak which was not the case long before the HIV testing. All focus group discussions and all interview participants reported that during their health education sessions, they were cautioned against having a lot of sex because it was similar to hard labour. The majority of in-depth interview and focus group discussion participants reported that health education sessions defined a lot of sexual as more than two sexual encounters per week. Reduction in frequency of sexual intercourse was reported as an effort to adhere to the health education caution.

*I used to have sex 5-6 times in a week before I tested HIV positive. After the HIV test and even after ART initiation, I can spend about two months without having sex.
(a 47 year male old married in-depth interviewee)*

However, it was reduction in the frequency of sexual intercourse was also as a result of other factors as the quote below illustrates.

*The sexual interest reduces and you don't even think about having sex.
(male focus group discussion)*

4.6.4 Condom use

Of the 9 in-depth interviewees who reported being sexually active in-depth interviewees, 5/9 reported condom use. Prior to HIV testing, none of the 11 in-depth interviewees who reported being sexually active, reported condom use too. All the 4 male in-depth interviewees who reported being sexually active reported condom use after taking a HIV test (table 3). On the other hand only 1 female in-depth interviewee who reported being sexually active reported condom use after HIV testing but before ART initiation (tables 3). All female in-depth interviewees reported that their partners disliked condoms and did not use them. They added that when men tried to use condoms, they removed them during sexual intercourse. Female focus group discussions also reported that men disliked condoms and were not using condoms. The reported reasons for men' none condom use and dislike were that men still wanted to have more children. Men were also reported to have told their wives/partners that they were having sex with their wives not prostitutes. Challenges of condom use in a

marriage/stable relationship were also hotly discussed in all the female focus group discussions as the quotes below illustrate.

We sometimes use condoms if he accepts. He wants to have more children that is why he refuses to use condoms.

(a 31 year old married female in-depth interviewee).

Men don't want to use condoms. Will you deny him sex yet you are married?

(female focus group discussion).

Men remove the condom during sex. Do you insist when you are married?

(female focus group discussion).

Table 3; Reported sexual practices of in-depth interviewees after HIV testing but before ART initiation

Variables	Men (n=9)	Women (n=7)	All (n=16)
Marital status			
Married/cohabiting	4/9	3/7	7/16
Separated/divorced	0/9	1/7	1/16
Single/widowed	5/9	3/7	8/16
Sexual activity			
Sexually active	4/9	5/7	9/16
Sexually inactive	5/9	2/7	7/16
Condom use			
used	4/4	1/5	5/9
Not used	0/4	4/5	4/9
Frequency of sexual intercourse			
>2	1/4	2/5	3/9
<2	3/4	3/5	6/9
Number of sexual partners			
Only 1 partner	3/4	4/5	7/9
More than 1 partner	1/4	1/5	2/9

4.7 Sexual practices six months and above after ART initiation

The same sexual practices topics explored prior and after the HIV test were also investigated here. This was aimed to allow for comparison sexual practices reporting across the different time periods. Results are presented under the same themes as the prior and after HIV test phases.

4.7.1 Sexual activity

Being sexually active was reported by half of the in-depth interviewees (8/16) while the other half reported being single/widowed six months and above after ART initiation. More women than men reported being sexually active 4/7 against 4/9 respectively. All in-depth interviewees who reported being sexually active were either married or cohabiting. Compared to after and prior the HIV testing periods, of the 16 participants, those who reported being sexually active were 9/16 and 11/16 respectively (tables 2, 3 and 4). In all the female focus group discussions, it was reported that marital obligations kept married ART clients sexually active. On the other hand in all male focus group discussions participants argued that having sex was not their number one priority. The male focus group discussion reported priority had more to do with welfare like attending school, medical care and their future than having sex.

Our thoughts are somewhere else like planning for your children when you are still capable. Or you look for money to survive on, you plan for business only. I am no longer sexually interested. I remained to only look at my wife without having sex with her. I think that if it were not for looking after her children, my wife would have left me to look for other sexually active men.

(male focus group discussion).

4.7.2 Number of sexual partners

Of the 8 in-depth interviewees who reported being sexually active, 7/8 reported having only one having only one sexual partner. All the female in-depth interviewees who being sexually active sexually also reported to have only one sexual partner while multiple sexual partners were reported by one of male in-depth interviewees. Compared to 7/11 and 2/9 in-depth interviewees who reported multiple sexual partners prior and after HIV testing periods. In all

the three time periods namely prior and after HIV testing and six months and above after ART initiation, multiple sexual partners were reported highest among male in-depth interviewees tables 2, 3 and 4). In both in-depth interviews and all focus group discussions HIV testing was reported to have initiated multiple partner reduction as illustrated by the quote below.

I had three sexual partners before I tested for HIV. Since that time I did never get other sexual partners and it is not in plan. I dropped the other partners when I came to know that I was sick (HIV+). Remember they were not my wives but casual partners.

(a 41 year old male married interviewee).

4.7.3 Frequency of sexual intercourse

Frequency of sexual intercourse greater than 2 times a week was reported by 2 of the 8 in-depth interviewees who reported being sexually active. Frequency of sexual intercourse of greater than 2 times a week was equally reported among both male and female in-depth interviewees six months and above after ART initiation (table 4). Even in all the focus group discussions, occurrence of sexual intercourse was reported to happen once a week or not at all. Reported reasons for the low occurrence of sexual intercourse were being more cautious with their health and loss of interest in sex. Prior and after the HIV test, 8/11 and 3/9 in-depth interviewees reported frequency of sexual intercourse of more than 2 times a week respectively (tables 2 and 3). Female in-depth interviewees reported higher episodes of sexual intercourse per week prior and after HIV testing than the male interviewees

I used to have sex four times in a week with my first wife and three times in a week the second one. After I had tested but before starting ART I used to have sex three times a week with my first and two times with my second one. Now, ever since I begun on ART, I only have sex with my first wife only and we do it once a week,

(a 31 year old male married interviewee).

4.7.4 Condom use

Condom use was reported by 3 of the 8 in-depth interviewees who reported being sexually active. All the male in-depth interviewees reported condom use except one. On the other hand, none of the female in-depth interviewees reported condom use. The sexually active interview female in-depth interview participants reported their male partners 'demand for sex without condom use led them not to use them. Participants in the male focus group discussions reported that, condom use with an extra-marital partner was none problematic. However, condom use with one' stable partner/wife was reported not to be okay with them. On the other hand in all female focus group discussions it was reported that some female ART clients had given birth and carried pregnancies because men were not using condoms at all. The female focus group discussions participants explained that men who had had children before the HIV positive diagnosis wanted more. Men who had tested HIV positive before having children were reported to long for having atleast one child.

I don't use condoms with my wife. She is my wife.

(male focus group discussion).

The man tells you that it's true I have put on the condom. You ask if you should give him a second one and he says one is enough. But then after two or three months, you feel things moving in your body and you wonder what it is! What could it be? Let me go to inquire and see. When you reach the health care provider tells you are pregnant. You never knew what happened to the condom. The partner showed you that he put on the condom. You wonder how they remove them during sex!

(female focus group discussion)

Table 4; Sexual practices of interview participants six months and above after ART initiation

Variables	Men (n=9)	Women (n=7)	All (n=16)
Marital status			
Married/cohabiting	4/9	4/7	8/16
Separated/divorced	0/9	0/7	0/16
Single/widowed	5/9	3/7	8/16
Sexual activity			
Sexual active	4/9	4/7	8/16
Sexually inactive	5/9	3/7	8/16
Condom use			
used	3/4	0/4	3/8
Not used	1/4	4/4	5/8
Frequency of sexual intercourse			
>2	1/4	1/4	2/8
<2	3/4	3/4	6/8
Number of sexual partners			
Only 1 partner	3/4	4/4	7/8
More than 1 partner	1/4	0/4	1/8

4.7.5 Diagrammatic illustrations of the reported sexual practices

The diagrammatic illustrations are only meant to represent the reported sexual practices and not to suggest a trend in these practices. No statistical tests were done.

Figure 3; Reported sexual activity amongst in-depth interviewees

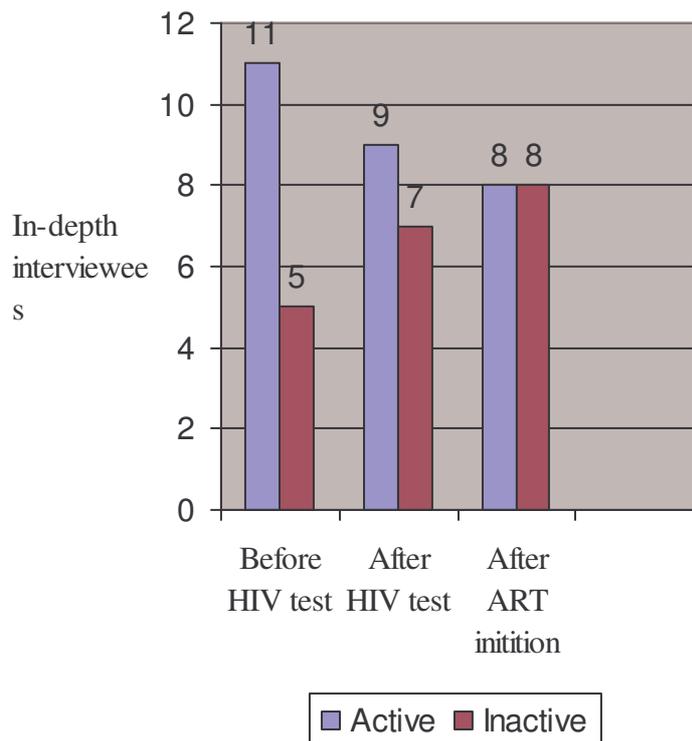


Figure 3, shows that the in-depth interviewees who reported sexual activity before and after HIV testing and six months and above after ART initiation.

Figure 4; Reported number of sexual partner amongst in-depth interviewees

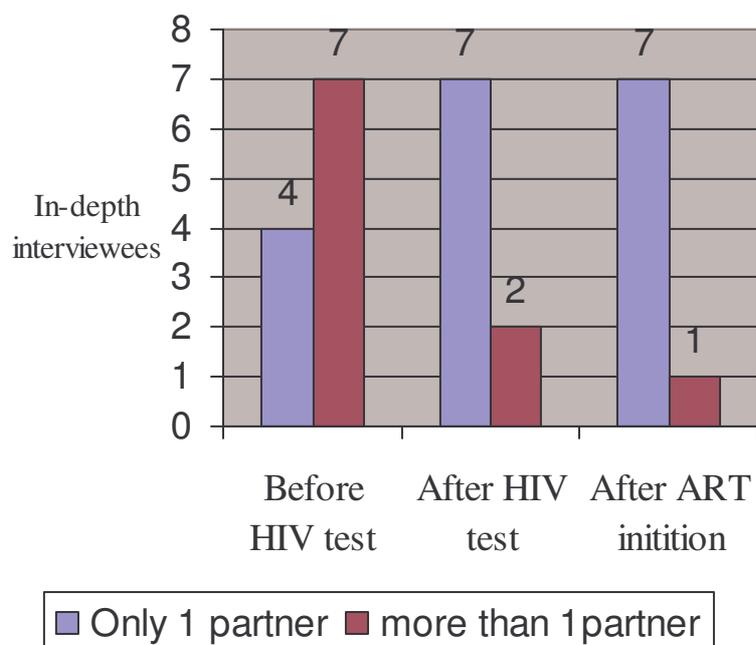


Figure 4 shows in-depth interviewees who reported sexual partnerships before and after HIV testing and six months and above after ART initiation.

Figure 5; Condom use amongst in-depth interviewees

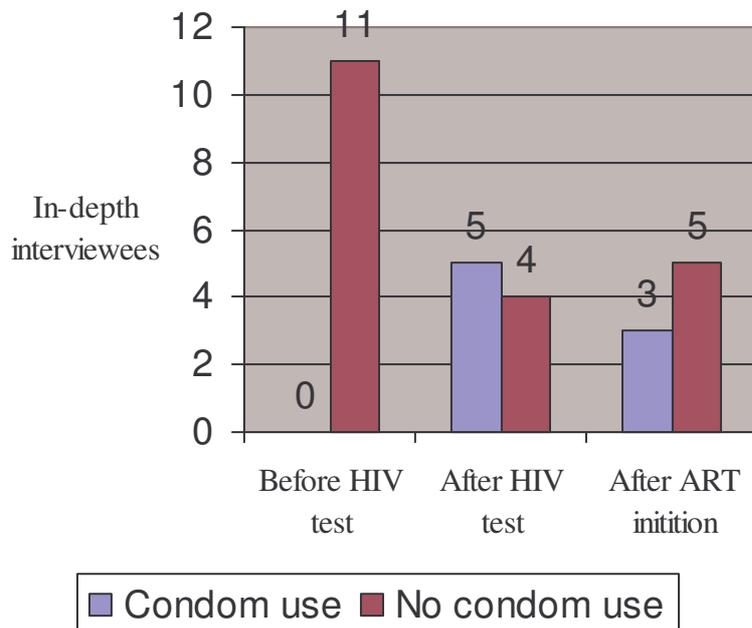


Figure 5 shows in-depth interviewees who reported condom use before and after HIV testing and six months and above after ART initiation.

Figure 6; Reported frequency of sexual intercourse per week amongst in-depth interviewees

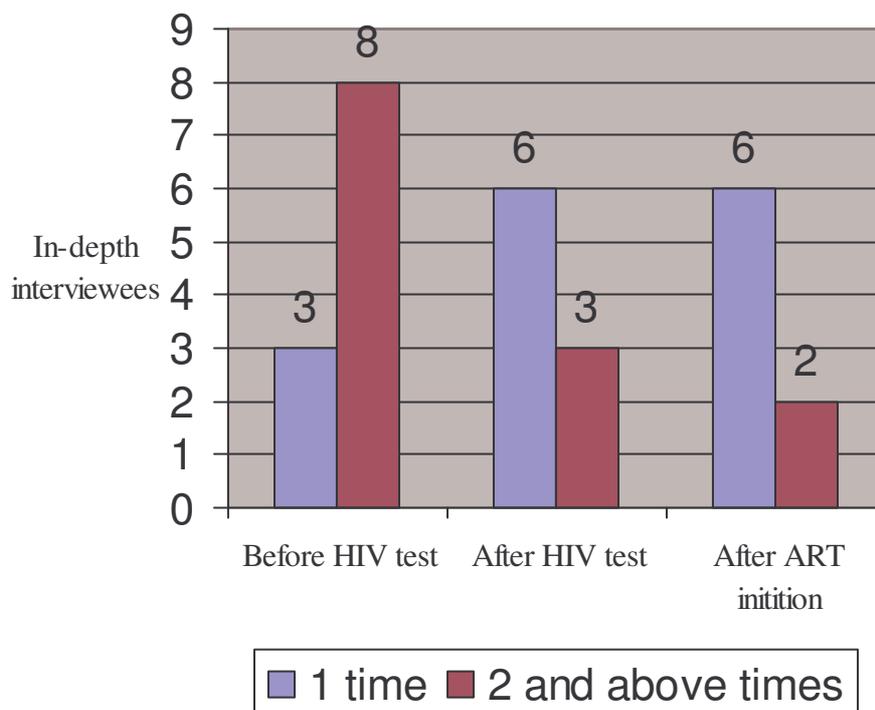


Figure 6 in-depth interviewees who reported sexual intercourse frequency per week before and after HIV testing and six months and above after ART initiation.

4.8 ART self discontinuation

Although the study never set out to investigate ART self discontinuation, it established that self discontinuation was beginning to emerge among the ART clients.

A great majority of in-depth interview (11/16) participants reported having either seen or heard an ART client who had discontinued one 'self. Only one in-depth interview participant reported having discontinued herself from ART and restarted it. The reason she reported for her ART self discontinuation was not having money to collect drug refills. The phenomenon of ART self discontinuation was reported to be more common among the female newly born again (saved) Christians. The reported reason for the ART self discontinuation in this group was the belief in miraculous healing. Reporting from all the focus group discussions also exhibited awareness and evidence of ART self discontinuation among the ART clients. Improved health status was reported in all the focus group discussions as an additional reason for ART self discontinuation. Existence of ART self discontinuation is illustrated by the following quotes.

My wife stopped taking it. She took it for only seven months. She says she is born again. Jesus healed her. She used to fall sick so frequently and it was I taking care of her. When she joined the organization, she was treated and she stopped falling sick frequently. That was when she got saved (born again). Born again Christians started praying for her and she said that she had had a vision. She had been healed by Jesus.

(a 31 year old male in-depth interviewee ART).

We have people who stopped taking ART. They say; Jesus healed them. I even tried to advise them instead they decided to go for prayers and come back home and stayed there. Whenever the illness becomes severe they go back for the prayers,

(a 46 year old widowed in-depth interviewee).

5.0 Discussion

5.1 Study limitations

The study relies on participants' self report of both historical and present sexual practices. This may be a limitation in the sense that both reporting and recall biases could have been present. Reporting bias refers to participants' tendency to selectively report what they think the interviewer would like to hear. In contrast to reporting bias, recall bias means differences among participants in ability to recall and report historical events chronologically. Both reporting and recall biases could have affected the quality of the data collected.

The reporting bias could have affected the study results leading either to over or under reporting of historical and present sexual practices. However, bias due to under reporting seems to be more than bias resulting from over reporting. Under reporting could have been caused because sexual practices topic is sensitive and HIV/AIDS infection a moralised disease. Some participants could have never wanted to be portrayed as immoral while others could have wished to save some privacy. Alternatively, male participants' over reporting could have been due to the desire to portray a successful profile in initiating and maintaining sexual relationships with the opposite sex. Female participants could have over reported their adaptation to HIV/AIDS preventive measures. This could probably be because they wanted to portray improved sexual practices and that they care about their health.

On the other hand recall bias could have affected the study findings through some participants' under reporting of the historical sexual practices.

Despite the fact that there were potential reporting and recall biases, study participants did not portray indications that any biases were present. Other than this, further steps were taken to minimise undetected but anticipated reporting and recall biases. Efforts taken to minimise the above shortcoming of the study included; application of the triangulation methods and standardising both the interview and focus group guides. Indeed use of triangulation methods improved data quality by for example focus group discussions yielded both positive and negative assessment of the routine home visits. The in-depth interviews had limited data quality by raising only benefits of these visits. Higher quality data was achieved through use of triangulation methods for example on one hand male interview participants reported

consistent condom use. In contrast all focus group discussions reported that men disliked condoms and used them inconsistently.

Confidentiality was also assured to the participants as a way of overcoming reporting bias. Indeed confidentiality was observed during data collection, processing and analysis. This was achieved by conducting data collection in privacy and by using a computer protected password.

The study is further limited by a small sample size for which the selection was non random. This potentially limits the generalisation of the study finding to other populations, projects /programmes and areas. However, the study aim was to understand not to generalise. A random sample selection was not feasible in this project given the limited resources, time and the sensitive nature of the topic under investigation.

Now we will turn the discussion to cover specific themes raised in this thesis. These specific themes include; knowledge about HIV/AIDS, ART and the agencies providing it. The other specific themes raised include; Voluntary counselling and testing utilisation, ART use and support outcomes, sexual practices prior to HIV testing, after testing but before ART initiation, six months and above after ART initiation, ART self discontinuation and appropriateness of the health education model will also be discussed under specific themes raised.

5.2 Knowledge about HIV and AIDS

The findings indicate that the health education model had been effectively applied in the study area to pass on HIV related knowledge to people living with HIV/AIDS. The study established high knowledge levels about modes of HIV transmission as well as preventive measures. This was illustrated by all in-depth interviewees' ability to mention atleast two modes of HIV transmission and to contrast HIV against AIDS. Unprotected sexual intercourse was mentioned by all in-depth interviewees. Similar patterns of modes of HIV transmission knowledge was exhibited in all focus group discussions. However, there were variations in reporting mother to child HIV transmission. Female in-depth interviewees and focus group participants were able to discuss the issues in more in details compared to their male counterparts.

The study also indicates that, knowledge of HIV preventive measures generally is high. Faithfulness, abstinence and consistent condom use knowledge were reported by all in-depth interviewees. An exception of this generally high knowledge was only the three participants who were unable to explain the right condom use procedure. Also prevention of mother to child transmission was more reported and discussed by the female participants in interview and focus groups respectively. Male focus group discussions participants were more focused around sexual partner reduction and condom use. Voluntary counselling and testing was the least discussed and reported HIV preventive measure. The study participants reported several illnesses' experiences since their HIV/AIDS diagnosis. These included among others; weight loss, fever, hair loss, diarrhoea, herpes-zoster and boils.

The study findings are comparable to the Uganda national HIV sero-behavioural survey of 2004-5. In this survey, knowledge about HIV/AIDS was defined as the ability to mention both its modes of transmission and preventive measures. This survey also defined a score of 60% and above to reflect high knowledge about HIV/AIDS. Ninety percent of this survey participants reported knowledge of both HIV transmission modes and preventive measures (20). According to the definition of the national study, all in-depth interview participants demonstrated knowledge of modes of HIV transmission and its preventive measures though in varying details. This knowledge was also exhibited in all the focus group discussions.

Similar high knowledge levels have been reported from South Africa and in Ivory Coast among HIV infected adults. Knowledge of HIV transmission modes and preventive measures was reported by over 85% and 99% in South Africa and Ivory Coast respectively (18, 19). However, the present study is different from the South African and Ivory Coast studies because it was conducted among ART clients only. On the other hand, the South African and Ivory Coast studies were conducted among HIV/AIDS patients regardless of their ART status and tuberculosis patients respectively. The high knowledge levels reported in both of these studies were linked to the study participants' exposure to pre and post test counselling.

In our study, male participants were exhibited less knowledge about mother to child HIV transmission and its prevention. In contrast the female participants showed detailed knowledge of mother to child HIV transmission and its prevention. This finding is similar to what was found out in Uganda and Tanzania among pregnant women. According to the pregnant women studies in Uganda and Tanzania detailed knowledge about mother to child

HIV transmission was high (32, 33). A study from Nigeria also reported that men were less informed about mother to child transmission and its prevention (34). However, our study is different from the Nigerian and the pregnant women studies done in Tanzania and Uganda. In our study all the participants had known and disclosed their HIV positive status to other people for quite long compared to the Ugandan pregnant women study where participants' HIV sero status was not established. Only one participant reported HIV positive test results in the Tanzanian pregnant women study while Nigerian study was community based and 98% of the participants did not know their HIV sero status.

The difference between male and female participants' knowledge about mother to child HIV transmission and its prevention could be due to the inequalities in health care information access. Women get exposed to extra health related information when they attend antenatal clinics. Men rarely escort their partners to antenatal clinics. Those who do escort their partners to antenatal clinics rarely attend the sessions together with them. The difference in knowledge of mother to child transmission and its prevention could as well be a consequence of selectively over emphasizing these issues to women compared to men during the counselling sessions. Alternatively, it could be that men pay less attention to HIV related information which does not portray them as primary victims because there is no immediate physical pain to them.

5.3 Knowledge about ART and the agencies providing it

The study findings illustrate how well AIDS patients know about ART. The study participants demonstrated factual knowledge of ART, for example that there are no cures for HIV/AIDS and that is a treatment for life. Participants also knew that they were still at risk of HIV infection and also carried a risk of infecting others with it. More detailed knowledge was reflected in participants' ability to interpret rightly both an increase and a decrease in CD4 cell count test results. Participants' awareness of ART dos and don'ts served to further demonstrate clear ART related knowledge. The commonly reported sources of this ART related information included; health personnel, fellow ART clients and radio programmes.

The ability to narrate the steps involved in the procedure of initiating ART chronologically demonstrated the effectiveness of the health education model in passing on ART related facts.

The model was applied in pre test, post test and continuous counselling during the drug refills at a group or individual basis. The sources of ART related information reported in this study are similar to those reported in studies from Nigeria and Uganda. According to the Nigerian study peers are not a as a source of ART related information and these studies were not necessary done among the ART users (20, 34, 35).

The study participants' knowledge exhibited both high and low levels of ART related knowledge. The three participants who could not explain the right condom use procedure indicate presence of low levels of ART related knowledge. The majority of our study participants indicated high levels of ART related knowledge. The high levels of ART related knowledge is indicated by the majority of the study participants who reported facts about ART and its use. This finding of both high and low levels of ART related knowledge exhibited in our study is comparable to what was found in studies from South Africa and Ethiopia (15, 18, 36, 37). Studies from South Africa reported both high and low levels of ART related knowledge. On the other hand the Ethiopian study reported that low levels of ART related knowledge caused low ART utilization.

The similarities of both high and low levels of ART related knowledge reported in the present study and in studies from South Africa could be an indication that both countries are faced with similar ART related delivery challenges. The high and low levels of ART related knowledge could be an indication of similar socio-demographical characteristics of ART clients in Uganda and South Africa. Alternatively, the similarity in reporting between the present study and the studies from South Africa could mean that both Uganda and South Africa have adapted identical models of ART delivery.

5.4 VCT utilization

This study established that the participants' first experience with VCT use was when they tested HIV positive. The finding that no participants had received VCT prior to testing HIV positive was due to fear of worrying after getting to know one' sero-status. The study participants explained that knowledge of one' sero status served to remind one of his /her death and that to avoid worrying, it was better not to take the HIV test. This finding seems to suggest that the health education model had succeeded in increasing the study participants'

knowledge about the importance of taking a HIV test. However, the increased knowledge level about the importance of VCT uptake did not necessarily lead to changed attitude towards VCT uptake. The zero prior VCT experience was also justified by the study participants' healthy feeling. The most cited reasons for the zero prior VCT experience were; why test for HIV when you don't feel ill? And the distance to the VCT centre /facility was also cited as a barrier to VCT uptake. These reasons served to explain VCT services never served as a primary prevention effort. Rather VCT services uptake served as an entry into HIV care, management and support.

All study participants sought VCT services when they had had episodes of concomitant illness like fever, headache, herpes-zoster and diarrhoea. The decision to seek VCT services was always influenced by health care providers, friends or close relatives. The low prior VCT service experience is not an untypical finding in Africa south of the Sahara. The corresponding in a Uganda national survey was that only 13 and 11% of women and men respectively had ever used the service prior to their HIV diagnosis (20). This finding seems to disagree with findings from South Africa where prior VCT experience was established to be far higher (37-40). The finding of zero VCT experience prior to the HIV diagnosis seem to be improving in Uganda due to the introduction of home based VCT delivery (14, 23). Similar improvement has been reported in South Africa (41).

5.5 ART use and support outcomes

The findings of this study highlight that ART users in the study area perceive social, economic and psychological benefits of ART in addition to the clinically measured benefits of the therapy. The present study participants reported improved health status, reduced morbidity, increased CD4 cell counts, more involvement in work activities, weight gains and increased energy levels. Improved economic status observations are reported in a study among urban ART clinic attendees in Uganda. Another study from study from Kenya reported increased work time and production among tea plantation workers on ART. On the other hand studies from South Africa, Senegal and Uganda have also reported clinical benefits of ART use similar to what our study has found even though we relied on self report benefits of ART use only (4, 6, 42, 43).

However, the study participants reported that they still faced challenges in rejoining income generating activities engaged in prior to their HIV diagnosis and regaining their former economic power. Entry into income generating activities not previously engaged in requires financial resources. These resources are rarely at the disposal of ART clients. The efforts to regain the economic power enjoyed prior to HIV/AIDS diagnosis are hampered further by the conflicting demands which come with ART treatment. These conflicting demands have economic implications to their ART clients. ART clients are advised not to overwork themselves. At the same time they are also told that some ART regimens /drug types require them to observe a particular diet in take. Observation of the recommended diet sometimes means making expenditures on those particular food types. Sustainability of these diet expenditures might demand as well long work hours. Yet ART clients are already advised against overworking themselves. All these demands with economic implications seem to threaten optimal ART use benefit acquisition more so to clients whose food security and financial resources. A study from eastern Uganda supports our study findings. According to that study ART clients still faced challenges in reconstructing their economic power (44). Another study done in Tanzania, Botswana and Uganda also highlights economic challenges of meeting optimal ART use (45).

The study findings further re-establish the importance of home based counselling offered through home visits in both ART treatment and the general fight against HIV/AIDS. The study demonstrates that home based psycho-social support help clients to make and sustain life adjustment demands which come with ART treatment initiation. The clients' social and psychological lives also get reconstructed positively in addition to boosting treatment adherence during the home visits. The study also illustrates home visits as a supervision and monitoring tool in ART treatment. However, participants criticised the home visits to serving as triggers of HIV infection suspicion and stigma in their communities though no participant reported being a victim of stigmatisation. This could be an indicator of self stigmatisation existence among our study participants.

The findings of this study are similar to what was reported about home visits' role in ART delivery from Eastern Uganda and in the three country study conducted in Tanzania, Uganda and Botswana (44, 45). The study from eastern Uganda reported the home visits and counselling as supervision and monitoring tool in ART delivery. In contrast the three country

study highlighted both the supportive role of home visits and counselling in ART delivery as the stigma resulting out of these home visits. The similarities between our study and that from eastern Uganda seems to suggest that a mixed model of both facility and home based ART delivery was adapted by Villa-Maria hospital HIV/AIDS programme and in Eastern Uganda. This difference in ART clients' assessment of home visits and counselling in our study and in eastern Uganda could be because of the different cultures practiced in eastern Uganda and in the present study area. This difference in reporting seem to suggest that the present study participants and participants in the eastern Uganda study were exposed to home visits and counselling of varying quality. Alternatively, the difference in reporting about home visits and counselling in the present study and in study eastern Uganda study could mean the health education model scores differently in different cultures and contexts.

The criticisms of home visiting and counselling highlighted in the present study were also reported in the three country study. However, in the present study no participant reported being a victim of stigmatisation. This seems to suggest that the participants in our study experienced self stigmatisation. The unexpressed stigmatisation because of HIV infection suspicion reported in our study raises concerns about quality of home visits and counselling offered to the ART users and HIV sero-status disclosure required of them prior to ART initiation. The present study findings could further suggest that some of the participants in this study disclosed their HIV sero-status because ART treatment initiation required so but not out the psychological preparation for it.

The study participants in our study were fully aware of the potential ART side effects. The ART side effects were only reported to be a consequence of none observance of the ART guidelines. This illustrates the high trust of the effectiveness of the ART therapy. This finding that people do not observe ART guidelines is comparable to what was found in a South Africa study where it was reported that ART users do not worry about the potential side effects of the therapy (18). This finding differs with recent finding which report low awareness of side effects among ART clients in Uganda (45). However, it agrees with findings from Botswana and Tanzania where ART side effects awareness was high among the ART users. ART use side effects have also been reported from medical personnel perspectives as well (4, 6, 42).

5.6 Sexual practices prior to HIV testing

This study revealed that close to seven out of ten in-depth interviewees reported being sexually active prior to taking a HIV test and only sexually active participants were in stable relationships (table 2). The in-depth interviewees who reported being sexually inactive were either divorced, separated or they had lost their partners prior to taking a HIV test. Majority of the in-depth interviewees could have been sexually active because they felt healthy and strong prior to testing for HIV.

The findings of the present study seem to point to the same direction as the findings of the Uganda national HIV sero behaviour survey. According to that survey, four out ten and 2 out of ten men and women respectively aged 15-49 reported being sexually active (20). However, the comparison between our study and the Uganda national HIV sero behaviour survey is limited. This is because our study is largely qualitative and was conducted among ART clients only. In contrast the Uganda national HIV sero behaviour survey was quantitative in and was conducted in the general population made up of both HIV positive and HIV negative people.

The present study findings indicate that more than half of the in-depth interviewees who reported being sexually active also reported multiple sexual partners prior to their HIV testing table 2. Prior to HIV testing, the more male than female in-depth interviewees reported Sexual frequency of more than two times a week was also reported by more than seven out of ten in-depth interviewees. The findings of our study seem to suggest that in spite of Uganda' reported behavioural change campaigns' successes, multiple sexual partnerships have not disappeared completely. A similar observation was made in the Uganda national HIV sero behaviour survey. In that survey, multiple partnerships were reported to have risen by 2 and 4% for women and men respectively (20, 27, 28).

Our study has demonstrated that prior to taking a HIV test there was no condom use at all among the in-depth interviewees. The reported reasons for no condom use prior to HIV testing era were; feeling healthy, strong and no perceived risk of HIV infection. This could mean that the study participants paid less attention to Uganda' earlier HIV/AIDS prevention efforts that were general population based.

These study findings are comparable to findings from a condom promotion community controlled trial in Kampala and the Uganda national HIV sero –behaviour survey (17, 20). The reported reasons for none condom use during the last sex encounter in the Uganda national HIV sero behaviour survey included; trust that the partner HIV negative, partner refused /did not like it and no knowledge about condom use. These are some of the reasons for none condom use in our study. On the other hand, in the condom promotion community controlled trial, the increase in condom use was also followed by the increase in number of sexual partners. Compared to the present study, promotion of safe sexual practices neither had a positive nor a negative impact on the sexual practices of the interview participants prior to their taking a HIV test.

5.7 Sexual practices after HIV testing but before ART initiation

According to the findings of this study, although more than half of the in-depth interviewees reported being sexually active after HIV testing, in-depth interviewees who reported being sexually inactive increased during the same period (tables 2 and 3). Participants explained that the increase sexual inactiveness was because of partner loss, separation or divorce due to failure to agree on which HIV/AIDS preventive measure to use. Alternatively, the reduction in sexual activeness could have been due to deteriorated health status resulting from the HIV infection progress into AIDS. Pre and post test and continuous counselling could have led to an improvement in sexual inactiveness.

The present study findings are similar to what was found in South Africa and Uganda among people living with HIV/AIDS (8, 16). According to the study by Cooper in South Africa and a study by Nakayiwa in Uganda, people living with HIV/AIDS remained sexually active because of the desire have children. However, a study from Ivory Coast showed that sexual inactiveness among people living was because of deteriorating health status, loss of interest in sex and partner loss(5). However, the study by Nakayiwa, the study from South Africa and that from Ivory Coast are all limited compared to our study. This is because these studies were done among both ART users and non users while our study was done among ART users only.

Results of this study show that in-depth interviewees who reported only one sexual partner increased by almost more than a double fold after testing for HIV but before ART initiation. The study findings further show that in-depth interviewees who reported sexual intercourse frequency of less than two times a week decreased greatly (tables 2 and 3). Study participants partly attributed the reduction in multiple partnerships and frequency of sexual intercourse to the pre, post test and continuous health education they got as counselling. The reduction in frequency of sexual intercourse was further explained to be being sickly and weak among the study. These findings seem to suggest that HIV testing uptake and the health education model succeeded in initiating reductions in risky sexual practices.

Similar observations have been made both in Uganda and Ivory Coast among people living with HIV/AIDS (5, 7). According to both of these studies, people living with HIV/AIDS reduced frequency of sexual intercourse and multiple partners because of the counselling they got, being sickly, weak and loss of interest in sex. Compared to our study, these two studies are limited. This is because the study from Ivory Coast was conducted among both ART users and non users while the participants in the study from Uganda had used ART for only six months.

The present study results indicate that among the in-depth interviewees who reported being sexually active, condom use reporting increased after testing for but before ART initiation (tables 2 and 3). However, female participants reported that men disliked condoms and used them inconsistently because they want to have children. This finding seems to suggest that HIV re-infections and creation of drug resistant HIV strands were not avoided among in-depth interviewees who reported being sexually active. This raises concerns about the future treatment of HIV/AIDS and the cost of ART.

Our findings are comparable with what has been found in Togo and Uganda among people living with HIV/AIDS (7, 46). Both of these studies reported inconsistent condom use among married and cohabiting couples living with HIV/AIDS. However, the study from Togo also noted that both men and women equally contributed to inconsistent and wrong condom use. On the other hand, the present study and the study from eastern Uganda show that men compared to women contribute more to inconsistent condom use. This difference in reporting could be because both the present study and the study from eastern Uganda were done among ART clients while the study from Togo was done among non ART users.

5.8 Sexual practices six months and above after ART initiation

Half of the interview participants in this study reported being sexually active six months and above after ART initiation (table 4). The other half of the in-depth interviewees had either decided to abstain or circumstances like partner loss, loss of interest in sex and ill health had forced them into abstinence. All in-depth interviewees who reported being sexually active were either married or cohabiting and more women than men reported being sexually active. The female in-depth interviewees reported that marital obligations kept women sexually active even when they wished otherwise. On the other hand male participants reported that their priority was providing the needs of their children than having sex. This finding seems to suggest that married women are not empowered to decide when and how to have sex. Alternatively, this finding could mean that the female study participants' sexual partners were neither exposed to pre and post test health education offered as counselling nor on ART treatment.

Our study findings are similar to what was found out in Uganda and Ivory Coast (5, 7). Both the Ugandan and the Ivory Coast studies reported that the majority of the sexually active ART clients were either married, cohabiting or in stable relationships. The sexually inactive participants in the Ugandan and the Ivory Coast studies reported to have had poor health status and lost interest in sex which is also reported by the present study.

The present study findings indicate that six months and above after ART initiation close to 9/10 and 8/10 in-depth interviewees who reported being sexually active also reported only one sexual partner and sexual intercourse of less than two times a week respectively (table 4). Participants in this study explained that they had terminated their extra-marital sexual partners and reduced sexual intercourse frequency because they had lost interest in sex and were more conscious with their health. The present study findings of reduced multiple partnerships, increased abstinence and low sexual frequency seem to suggest that the health education offered before and after VCT use and continuous counselling contribute to greatly to improved sexual practices.

The findings of this study seem to confirm what was reported among people living with HIV/AIDS in Ivory Coast and in Uganda (5, 7). Both of these studies reported reduced

multiple partnerships and sexual intercourse frequency. The study from Uganda and Ivory Coast, reported loss of interest in sex and ill health were responsible for reduced sexual intercourse and multiple partnerships among people living with HIV/AIDS. However, the present study differs from these two studies. The present study was conducted among ART clients who had been on treatment from six months and above. On the other hand the study from Ivory Coast was conducted among both ART users and non users while the Ugandan study was conducted among ART users who had been on treatment for six months only.

In-depth interviewees in our study who reported no condom use six months and above after ART initiation were 6/8 (table 4). Desire to have children, condom dislike and having sex with a stable /marriage partner were the reported reasons for non condom use among the male participants. Similarly, being married and financially dependent on accounted for the female participants' non insistency on consistent and right condom use. Condom dislike and its inconsistent use in stable relationships seem to illustrate inadequate understanding of HIV transmission dynamics or mere stubbornness of the male participants. On the other hand the inability expressed by married / women in stable relationships to insist on consistent and right condom use serves to remind us of their vulnerability to HIV re-infection and the need to protect and empower them.

Our study findings are similar to what was found out in Ivory Coast and Uganda (5, 7) According to the study from Uganda and Ivory Coast, most of unprotected sexual intercourse occurred among ART clients who were in stable marital unions. A study in Malawi also reported that marriage exposed women to unprotected sexual intercourse (47). In this Malawian study men were reported to easily use condoms with their extra-marital partners and not use them with their wives. However, the present study was conducted among ART clients only who had been on the treatment six months and above. On the other hand Ugandan, Malawian and the Ivory Coast studies are limited by their study populations. The Malawian study was conducted among women whose sero-status was not established. On the other hand the Ugandan study was conducted among ART clients who had been on treatment for six months only while the Ivory Coast stud which was conducted in an urban setting among both ART clients and other HIV/AIDS patients.

5.9 ART self discontinuation

A few emerging ART self discontinuations were revealed by the study. Though still small, ART self discontinuations raises concerns about the effective future use of ART and the subsequent prevention of drug resistant strains of HIV spread. The ART self discontinuation was common among the newly converted into born again Christians domination. Miraculous curing infections including HIV/AIDS upheld by the born again Christians was the reason given for the ART self discontinuation.

Although the reasons behind the ART self discontinuation are not yet conclusive, the ART self discontinuation finding was in agreement with other studies conducted both in Uganda and in the developed world (48-51). According to our study findings belief in miraculous healing among evangelical Christians is the reason behind ART. Studies in the rest of sub-Saharan African have also documented evangelical churches' claim to cure HIV/AIDS and other infections. This finding agrees with earlier reporting about ART self discontinuation in Kampala Uganda (49, 50). According to these studies, ART clients self discontinued because of the belief in spiritual healing and costs related to ART treatment. These studies also reported that ART self discontinuation occurred because of ART clients' hospitalisation, improvement in health, side effects and loss to follow up.

In contrast, ART self discontinuation because of the belief in miraculous healing/curing differs with findings from the developed world. A study from Vancouver Canada reported imprisonment as a major cause of ART self discontinuation among injection drug users (48). However, imprisonment as cause of ART self discontinuation does not seem to be limited to the developed world nor to drug abusers only.

The present study findings about ART self discontinuation also differ with medical studies findings. These medical studies have reported ART discontinuation due to drug failure, toxicity and patient decision. However, these studies fall short of accounting for ART discontinuation beyond the clinical perspective. For example the reasons behind the patients' decisions to self discontinue ART are not highlighted in these studies(48, 51). The emerging ART self discontinuation serves to remind us of the need neither to relax prevention nor treatment efforts in the fight against HIV/AIDS.

5.10 The appropriateness of the health education model as a conceptual framework

Attempts to change behaviour through the application of the health education model works on the assumption that increasing people's knowledge levels leads to a change in their attitudes. The changed attitudes in turn is expected to lead to the desired behaviour change. The aim was to explore the extent to which the model contributed to behaviour change among the ART clients of Villa-Maria hospital Masaka Uganda. The model contribution to behavioural change was to be explored by establishing the ART clients' levels of knowledge, present and past sexual practices. The study was not designed to investigate attitudes but participants revealed a lot of attitudes. This was because appropriateness of the model was thought that would be ascertained once ART clients' knowledge levels, present and past sexual were established.

The findings from this study indicate that the health education model is appropriate on one hand. On the other hand the model is in appropriate as a conceptual framework in implementing behavioural change interventions and their evaluation. The appropriateness of the health education model was illustrated by the participants' exhibition of the high knowledge levels about HIV/AIDS and ART. Reported reduction in number of sexual partners and reduced frequency of sexual intercourse seem to illustrate the appropriateness of the health education model figures (4 and 6). This is because the reported reduction in risky sexual practices coincided with health seeking, a time when health education was offered in the form of pre, post and continuous counselling.

However, the reported reduction in risky sexual practices could as well be explained largely by HIV/AIDS infection progression into a disease. In addition to health education, partner loss and weakened energy levels were reported to cause a reduction in risky sexual practices. The reductions in risky sexual practices seem to be reflected in reported number of sexual partners and the frequency of sexual intercourse respectively figure (4 and 6).

The reductions in risky sexual practices seem not to be a product of the health education but a consequence of the intensity of HIV/AIDS progression. This is because health education programmes have been running over the radios and in churches since the mid 1980s. This

was long before our study participants got infected with HIV and sought care, support and management.

Similar findings have been reported among ART clients in Uganda and Ivory Coast. Both the Ugandan and Ivory Coast ART clients reported reduction in risky sexual practices to be due to HIV/AIDS infection progression, loss of interest and general body weakness. Although ART clients in both countries were subjected to health education in the form of counselling, they did not report the improvement in safe sexual practices to have been caused by the health education they received. However, application of the health education model at the general community level in Uganda reported persistent HIV incidence despite increased reported condom use (17, 52). The present study findings seem to agree with what earlier studies concluded that for maximum output of the health education model need to be implemented in conjunction with other interventions.

The inappropriateness of the health education model in this study was illustrated by the condom use reporting (figure 5) and the three participants who could not explain the right condom use procedure. Several studies have reported that HIV prevalence decline in Uganda was achieved through the application of the health education model. On the other hand too, several studies have reported that HIV prevalence decline in Uganda was not a result of independent application of the health education model rather a combination of strategies (3, 27, 53).

These studies are limited by their use of the secondary data. However, randomised controlled trials of health education model in Uganda neither reported increased condom use nor a reduction in the number of sexual partners (17, 52). The current study seems to agree with the randomised controlled trials' findings on condom use and disagree on increased number of multiple sexual partners. This difference could be because the randomised controlled trials were conducted among both HIV positive and HIV negative people and were not seeking HIV care, support and management. The participants in these randomised controlled trials could have still felt healthy and strong unlike the present study participants who reported reduced energy and health status because of HIV/AIDS infection progression.

5.11 Conclusion

This study has established high knowledge levels related to HIV/AIDS and ART and reduced frequency of sexual intercourse, improved abstinence and faithful to their partners but condom use is hardly adhered to consistently and correctly. Equally discouraging is failure to seek VCT services and the emerging ART self discontinuation.

5.12 Recommendations

VCT services still need to be promoted intensively to discourage it's under utilization. However, this needs to be done in a more a more synergistically assembled model to include; gender sensitive efforts to empower the women with safe sex negotiation skills and to address men' dislike of condom use into VCT services as ways of bridging the inappropriateness of the health education model .

Prevention messages should be improved upon to address emerging ART self discontinuation, ART clients' desire for children and to protect the more expensive and stronger ART regimen The prevention messages should address the belief in miraculous curing /healing of HIV/AIDS, drug resistant HIV strains and the challenges of producing more children while on ART. In the meantime, prevention of mother to child transmission of HIV schemes should be fully operational to cater for those who choose to have children regardless of their awareness levels about the preventive measures.

ART provision should be broadened to include food security and economic status enhancing programmes/ schemes. The food security and economic enhancing schemes will address increased food appetite and the challenges of regaining the economic status respectively. Such schemes need to be implemented in a way that discourages the beneficiaries from abusing them.

As it has been shown, a high level of knowledge about HIV/AIDS and ART is enough to kick start sustainable behavioural changes. For HIV/AIDS treatment and prevention programmes to be more effective, more research which can be generalised to other areas, populations, situations is required to explain the dynamics of these behaviour patterns. There is need to explore comprehensively why men and women continue to put their lives at risk even when are highly knowledgeable about HIV/AIDS and ART.

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7.0 APPENDICES

7.1 CONSENT FORM FOR THE INDEPTH INTERVIEW RESPONDENTS

Hullo,

My name is Dominic Bukenya Yiga. I'm, a student at the centre for international health (CIH), university of Bergen, Norway (UiB). I'm inviting you to participate in a research study. Participation in the research study is voluntary. On that account you may choose to participate or not.

Study description

I am interested in learning about your experiences as both a person living with HIV/AIDS and an ART client. You will be asked questions about HIV/AIDS, ART, HIV/AIDS preventive measures and sexual behavioural changes.

This will approximately take about 45-1hour. You are free to withdraw from the study any time without giving reason(s). Your withdraw from participation will not in any way result in loss of benefits from the Villa-Maria hospital HIV/AIDS mobile home care programme activities nor will it result in any penalty.

AUDIO TAPING

We ask you to allow your voice to be audio taped. Audio taping will help in the final report writing. However, this is voluntary too. You are free to refuse audio taping, switch it off when you do not want particular section of the interview to be recorded.

BENEFITS

The study might not yield direct personal benefits. However, it will contribute to knowledge creation and identifying information gaps among ART clients. The study findings might further be put to use by programme designers and ART adherence counsellors. This can be done through designing new and improving existing information education and communication materials and messages (IEC).

RISKS

There are no expected risks to you because of your participation.

CONFIDENTIALITY

The information collected both through audio tapping, notes taking and transcription will be kept confidentially. Anonymity will be achieved through use of identification numbers instead of names. Data will be kept on a password protected computer. This computer will only accessible by the research team. No information will be released or printed that would disclose ones' identity.

Any question which you may have about this study can answered by contacting the researcher; 0782966515 or by contacting the program head director; 0772630608.

Date_____Participant signature/thumb print_____

7.2 CONSENT FORM FOR THE FOCUS GROUP DISCUSSION

You are welcome for this focus group discussion.

Purpose of the research

The overall objective of this study is to investigate the impact ART on sexual behaviours and HIV/AIDS perception among the Villa-Maria hospital clients, Masaka Uganda.

Description of the research

We are here to discuss about HIV/AIDS, ART, HIV/AIDS preventive measures and sexual behaviours changes among ART clients.

We expect to take to take about 1.30minutes discussing these issues.

Potential benefits

The study is hoped to generate knowledge about HIV/AIDS, ART, HIV/AIDS preventive measures and sexual behavioural changes. This knowledge might be used in designing new information education and communication messages as well as improving existing health promotion programmes.

Participation

Participation in this study is completely voluntary and you can withdraw any time with out any penalty.

Confidentiality

Confidentiality will be observed and no information will be released that discloses any one' participant identification.

Reimbursement

There will be no reimbursement for participation in the study though we will only provide food and drinks.

Conflict of interest

We declare that we have no conflict of interest at all in conducting this study.

I hereby consent to participate in the study and not to disclose the views of other participants.

Signature /thumb print _____

Name _____

Date _____

7.3 STRUCTURED QUESTIONNAIRE FOR ALL STUDY PARTICIPANTS

1. Id number _____

2 Sex; 1.males
 2. Female

3. Marital status
 1. Married
 2. separated/divorced
 3. Widowed

4. Faith/religion. Tick

- 1. Anglicans
- 2. Catholics
- 3. Moslems
- 4. Pentecostals
- 5. Pagans
- 6. Others, specify

5. Age _____

6. Duration on ART in months _____

7. Distance to ART centre/outreach clinic _____

8. Number of dependants _____

9. Level of education. Tick.

- (1) nil
- (2) Lower primary (1-4)
- (3) Upper primary (5-7)
- (4) Senior 1-4
- (5) Senior 5-6
- (6) University
- (7) Other tertiary institutions

2. Main sources of income
(I) _____

(ii) _____

iii) _____

7.4 INTERVIEW GUIDE

The specific objectives of the study will include;

Theme I

The ART clients' level of knowledge about both ART and HIV/AIDS transmission

1. Describe for me a person who is HIV+
 - **Probe for;** symptoms
2. Describe for me a person with AIDS
 - Probe for symptoms
3. Tell me about the treatment given to an HIV+ person
4. Tell me about the treatment given to a person with AIDS
 - Probe for ART
 - Particular category of people who qualify for ART
 - Where can it be got from and when
 - Where do people get information about it from?
 - Stages/process of accessing ART (HIV testing, laboratory and psychosocial assessment i.e. CD4 tests, home visits, disclosure and medicine companion counselling)
 - Duration of the entire process
 - Importance of each stage
 - Rules/regulations of ART (adherence, alcohol/drug use, herbs/local drug use, safe sex practices e.g. Condoms, faithfulness, reduced partners, disclosure, abstinence, duration of ART, drug sharing)
5. Tell me how about HIV/AIDS transmission
 - To client on ART
 - From Client on ART
 - To new born from mother on ART
6. In your community, which people do you think leading in infecting other with HIV/AIDS?
 - Probe for people living with HIV/AIDS and ART clients/unknown serostatus/others
 - Why that group of people
7. What is the outcome of ART treatment?
 - Probe for cure of HIV/AIDS against viral suppression
 - If cure, why cure?
 - Are you at risk of contracting HIV/AIDS again?
 - Why?
 - If yes, how can you avoid contracting HIV/AIDS again?
 - Can you infect HIV/AIDS to your sexual partner(s)?
 - Why?

NB Fill in the table of reported sexual practices while covering themes I and II

In-depth interviewees' reported sexual practices

	BEFORE HIV TESTING	AFTER HIV TESTING	SIX MONTHS AND ABOVE AFTER ART INITIATION
Sexual activity			
Yes			
No			
Number of sexual partners			
Only 1			
More than 1			
Frequency of sexual intercourse per week			
Only once			
More than one			
Condom use			
Yes			
No			

Theme II Sexual behaviours before and after ART initiation

8. Tell me about your sexual behaviours from the time you tested HIV+ to the point of ART initiation.
 - Probe for HIV+ test result was taken
 - What prompted you to test?
 - Number of children since HIV testing
 - Number of pregnancies since HIV testing
 - condom use, how it was introduced, when was it introduced, consistent use, when was it used inconsistently and why
 - Faithfulness, when was it dropped and why, why did it persist till ART initiation?
 - Number of casual sexual partners before HIV testing, what happened? Dropping them, increasing them
 - Number of sexual intercourse per week, with which partner? When did they go down/up and why?

- Permanent sexual partner' change (reducing or increasing when and why)
Divorce/separation/re/marriage, institutionalising the marriage when did it occur and why?
- Abstinence for how long? When did you stop it and why?
- Sexual partner attitude towards sex, sexual intercourse, protected/unprotected and why?
- Disclosure, how sex is affected by disclosure
- How best can negative behavioural change be overcome?

9. Tell me about your sexual behaviours from the point you started on ART to the present

- Probe for when ART treatment was started
- condom use, when was it stopped, when was it resumed, consistent use
- New partner acquisition/ reduction of sexual partners, when did it happen, why did it happen, partner on ART, serostatus known, unknown, how did you know it, is it relevant to have protected sex with him/her, why?
- Faithfulness, when was it suspended, how many times have it been suspended why was it suspended?
- Divorce/separation, institutionalising the marriage, why
- Number of sexual intercourse per week, when did they go up/ down and why?
- Abstinence, when was it suspended and why? When was it resumed and why?
- Mothering/fathering new babies, how many, when and why
- Disclosure to sexual partners, when, how and why, how does it affect sexual practice?
- How can sexual needs of people on ART be best catered for?
- How best can positive behavioural change be promoted?

Theme III

HIV/AIDS preventive measures.

10. Which HIV/AIDS preventive measures are you aware of?

11. Which of these measures are available in your community?

12. What are the easiest HIV/AIDS preventive measures to use?

- Why?
- What are the hardest HIV/AIDS preventive measures to use?
- Why?
- Which measures do you use?
- Why?
- How often/consistency do you use them?
- Probe for consistency in use
- What are the barriers to practicing HIV/AIDS preventive measures
- How can these barriers be overcome?

7.5 FOCUS GROUP DISCUSSION GUIDE

Once again, I welcome to this focus group discussion.

FOCUS GROUP DISCUSSION PROCEDURE

For this discussion, we require that every one respects each other views. Let us not indulge in issues we did not come to discuss. Let one person to speak up his /her views at a time while others listen to him /her. When you speak, do so audibly such that others can hear what you are saying. You do not need to put up your arm when you want to say something. The facilitator will be leading guiding our discussion while the note taker will be taking noting our ideas.

Them I

To determine the ART clients' level of knowledge about both ART and HIV/AIDS transmission

1. Describe an HIV+ person? Describe a person with AIDS.

Probe for

- Symptoms/signs in both case
- 2. What treatment/drugs are given to the HIV+ person?
- 3. What treatment is given to a person with AIDS?

Probe for

- ART.
- Categories of people who qualify for ART (is it anyone who is HIV+/AIDS)
- If not why
- 4. How can one access ART treatment?

Probe;

-for the process /stages of accessing ART i.e where and how information about ART is got from, screening exercises both laboratory and psychosocial assessments
-relevancy of each stage

5. What are the rules/regulations of ART treatment?

Probe for

- Adherence
- Drug/alcohol use
- disclosure
- use of local herbs/ drugs concurrently with ART
- safe sex practices (condoms, abstinence, faithfulness, disclosure)

MERGING ISSUES,

Objective 4. To establish factors which lead to ART self discontinuation.

- Which category of people discontinue themselves from ART?
- How often does ART self discontinuation happen among ART clients?
- How do they come to discontinue themselves?

After what period on treatment do the clients discontinue themselves from ART?

-What causes people to self discontinue themselves from ART?

6. How is HIV/AIDS transmitted?

Probe for

- sources of HIV/AIDS information

7. In your community, which people are said to be leading in transmitting HIV/AIDS to others?

Probe for

- People living with HIV/AIDS
- ART clients, unknown serostatus
- How best can HIV/AIDS transmission be prevented/controlled in your community?

8. What do ART clients say is the outcome of ART treatment?

Probe for;

- cure HIV/AIDS against viral suppression
- if cure why say it is a cure?
- Can ART clients transmit HIV/AIDS to their sexual partners? If no, why?
- Are ART clients at risk of contracting HIV/AIDS again? If no why?

Them II

Sexual behaviours before and after ART initiation

9. What do your community say think of about ART clients' current sexual behaviours?

Probe for;

- New partner (s) acquisition
- Marriage/remarriage/divorce/separation
- number of sexual intercourse per week, when did they go up/down and why?
- Mothering/fathering/pregnancies new babies, both parents on ART
- disclosure of serostatus, why disclose
- Abstinence/faithfulness/condom use
- Why think/say like that?
- What are the facilitators of negative sexual behavioural change among ART clients?
- how can these facilitators be overcome

-

10. What do people in your community used to say about/ think of ART clients' sexual behaviours from the point their tested HIV+ to the point of ART initiation?

Probe for;

- New partner (s) acquisition, casual, permanent
- Marriage/remarriage/divorce/separation, institutionalising the marriage
- Mothering/fathering/ pregnancies new babies, when, how many and why?
- Abstinence/faithfulness/condom use
- when did their abstinence/condom, faithfulness stopped and why?
- Why think/say like that?
- what are the barriers of positive sexual behavioural among people living with HIV/AIDS in your community?
- How can these barriers be overcome?

Them III

HIV/AIDS preventive measures

11. Mention the HIV/AIDS preventive measures you know

Probe for

- Sources of information about HIV/AIDS preventive measures

12. Which of these measures are available in your community?

13. What do ART clients in your community say about use of HIV/AIDS preventive measures?

Probe for;

-Easiest and hardest to you?

Why?

-consistency

-Use and non use of HIV/AIDS preventive measure.

-If non use ask why?

-If use is reported; ask whether the use is high or low and why

Which HIV/AIDS preventive measures do ART clients say they use most?

-Why that measure?

-What are the barriers of use of HIV/AIDS preventive measures?

-How can these barriers be overcome?

7.6 Ethical clearance



Uganda National Council For Science and Technology

(Established by Act of Parliament of the Republic of Uganda)

Your Ref:

SS 1986

Our Ref:

06/06/07

Date:

Mr. Dominic Yiga Bukenya
P.O Box 7032
Masaka

Dear Mr. Yiga,

RE: RESEARCH PROJECT, "IMPACT OF ART ON SEXUAL BEHAVIOUR AND HIV/AIDS RISK PERCEPTION AMONG VILLA-MARIA HOSPITAL CLIENTS IN MASAKA, UGANDA"

This is to inform you that the Uganda National Council for Science and Technology (UNCST) approved the above research proposal on **June 06, 2007**. The approval will expire on **October 06, 2007**. If it is necessary to continue with the research beyond the expiry date, a request for continuation should be made in writing to the Executive Secretary, UNCST.

Any problems of a serious nature related to the execution of your research project should be brought to the attention of the UNCST, and any changes to the research protocol should not be implemented without UNCST's approval except when necessary to eliminate apparent immediate hazards to the research participant(s).

This letter also serves as proof of UNCST approval and as a reminder for you to submit to UNCST timely progress reports and a final report on completion of the research project.

The Resident District Commissioner(s) of Masaka, Sembabule District(s) in which the study will be conducted is informed by copy of this letter, and is kindly requested to give you the necessary assistance to accomplish the study.

Yours sincerely,

Leah Nawegulo
for: Executive Secretary
UGANDA NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

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