UTILIZATION OF FAMILY PLANNING SERVICES AMONG SEXUALLY ACTIVE PEOPLE LIVING WITH HIV/AIDS IN TASO TORORO

BY

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DECLARATION

I hereby declare that, to the best of my knowledge, this dissertation is my original work and has never been submitted to this University or any other institution of higher learning for an academic award or publication.

I hereby submit it for the award of a degree of Masters of Public Health of Makerere University.

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DEDICATION

This report is dedicated to my parents: My mother Mrs. Felistus Namakoye Egessa and my late father Mr. Athanasius Egessa

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I praise the almighty God for his loving kindness and grace which accompanied me during the entire research period.

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TABLE OF CONTENTS .....PAGE NUMBER

LIST OF TABLES

LIST OF FIGURES

ACRONYMS AND ABBREVIATIONS

Acronyms

AIDS:	Acquired Immune Deficiency Syndrome
ART:	Anti Retroviral Therapy
CDC:	Centers for Disease Control and Prevention
CPR:	Contraceptive Prevalence Rate
DMPA:	Depot Medroxy-Progesterone Acetate
FHI:	Family Health International
FAB:	Fertility Awareness Based methods
FP:	Family Planning
FPAU:	Family Planning Association of Uganda
HIV:	Human Immunodeficiency Virus
HMIS:	Health Management Information System
HSSP:	Health Sector Strategic Plan
IUD:	Intra Uterine Devices
LAM:	Lactational Amenorrhea Method
MOFPED:	Ministry of Finance Planning and Economic Development
MOH:	Ministry of Health
MTCT:	Mother-to-Child transmission
PEAP:	Poverty Eradication Action Plan
PLWHA:	People Living With HIV/AIDS
PMTCT:	Prevention of Mother to Child Transmission
STI:	Sexually Transmitted Infections

TASO:	The Aids Support Organization
TFR:	Total Fertility Rate
UBOS:	Uganda Bureau of Statistics
UDHS:	Uganda Demographic Health Survey
UHSBS:	Uganda HIV/AIDS Sero-Behavioral Survey report
WHO:	World Health Organization

OPERATIONAL DEFINITIONS

Active client: A client who has received TASO services at least once in the last six (6) months

Sexually Active: A client who has had sexual intercourse at least once in the last 3 months

Family planning utilization: This referred to use of any form of either modern or traditional family planning (FP) method

Current use of FP method:

Respondents who responded positively after being asked whether they were currently doing anything to delay or avoid pregnancy. The time period for current use of FP was varied;

- For surgical methods such as female sterilization (tubal ligation) and male sterilization (vasectomy) - ever use was assessed as these are permanent FP methods
- For methods such as oral contraceptives, injectables, intrauterine contraceptive device (IUD), implants, lactational amenorrhea method (LAM), fertility awareness based methods (FAB) and herbs – their current contraceptive effect at the time of the interview was assessed as this effect is temporary
- For barrier methods such as condoms – current use was reported use by sexually active PLWHA for FP purposes at the time of the interview irrespective of the consistency

Modern FP methods: FP methods such as pills, injectables (Depo-Provera), condoms, implants, Intra uterine contraceptive devices, vasectomy, bilateral tubal legation

Traditional FP methods: Other FP methods such as Lactational Amenorrhea, Fertility Awareness Based methods and herbs

Fertility Awareness Based methods: These are based on knowledge about safe and unsafe days of conception. They include methods such as changes in basal body temperature, "thickness" of cervical mucus, use of moon beads and withdrawal method

ABSTRACT

Background: Uganda has one of the highest Total Fertility Rates of 6.9 in the world and a 23% Contraceptive Prevalence Rate. In TASO, 60% of the active clients are sexually active and use of modern contraceptive options other than condoms is less than 20%. The study was conducted to document current family planning (FP) use, identify frequently used FP methods and possible underlying factors among sexually active clients seeking TASO Tororo services.

Methods: A cross-sectional study using both quantitative and qualitative techniques. Semi-structured questionnaires were administered to 244 participants at five (5) service delivery points. In depth interviews were conducted from each of these areas. Univariate analysis was done to determine frequencies of FP methods used. Using odds ratios, bivariate analysis was done to assess the effect of individual factors on FP use. Logistic regression was then run to assess for the effect of potential confounding variables.

Results: FP use for all methods was 87.3%. Frequency of methods used and provided by TASO was 87% condoms, 7% pills and 6% depo-provera. Logistic regression results suggested that it was 9 times more likely for participants that reported approval of spouse to use FP [95% CI 3.35-26.00: P<0.001] than those that reported no spouse approval and 4 times more likely for participants who had knowledge about FP to use FP [95% CI 1.32-10.60: P=0.013], than those without knowledge about FP methods.

Conclusions and recommendations: Overall 87% currently used condoms, 13% use hormonal based contraceptives (pills and depo-provera). Knowledge of FP methods and approval of the spouse were more likely to be associated with FP use. The study underscored the need for FP programs to adopt approaches that improve method specific knowledge and target the spouses in order to promote FP use in line with National objectives for scale up of FP services.

CHAPTER ONE: INTRODUCTION

Globally, there are an estimated 33.4 million people living with HIV/AIDS. Africa and Sub-Saharan Africa in particular has peculiar needs for both HIV and Family planning (FP) services**.** The majority (67.1%) of people living with HIV/AIDS (PLWHA) are in Sub-Saharan Africa, the prevalence is higher among individuals of reproductive age group with young women being most vulnerable; there are high poverty levels, high fertility rates and inadequate access to contraception services. (UNAIDS/WHO, 2009)

In sub-Saharan Africa, the epicenter of the HIV epidemic, effective HIV prevention and care strategies for PLWHA remain a challenge. Some contraceptive methods originally designed for fertility regulation such as condoms are sometimes promoted primarily for protection against STI/HIV. Often PLWHA get unplanned pregnancies and experience negative effects of pregnancy on their health, which leads to poor obstetric outcomes and rapid progression of HIV.

In addition, it contributes to new pediatric HIV infections through vertical transmission. There is thus a vicious cycle of unregulated fertility, re-infection of HIV and suffering among PLWHA related to effects of HIV. Effective utilization of FP services by PLWHA can help address such emerging public reproductive health concerns and overall improve maternal and child health outcomes in general (World Health Organization, 2006).

In the developing world, the HIV epidemic is characterized by over 80% of the cases transmitted sexually and an additional 10% transmitted from mothers to children. In such an HIV

environment, PLWHAs in the reproductive age group are faced with more complex fertility-related decisions. Many people desire but at the same time do not use any FP methods and among other factors, cost and limited access to quality FP services are contributory. Social norms such as early childbearing, preference for large family sizes that is encouraged by the strong desire to sustain lineage and the belief that many children provide old-age security remain barriers to contraceptive use (WHO 2006). When health care programs provide services in ways that meet multiple client needs, satisfaction with the service delivery increases and the scarce financial and human resources are better utilized (Family Health International 2008).

Family planning (FP) is a voluntary and informed decision by an individual or couple on the number of children to have and when to have them, by use of modern or natural FP methods (MOH, 2005). It can also be simply referred to as having children by choice and not by chance. Modern FP methods commonly available include oral contraceptives, Depot Medroxy-Progesterone Acetate (DMPA) injections, Implants, condoms, diaphragms, Intra Uterine Devices (IUD) and voluntary sterilization (vasectomy and tubal ligation). The traditional methods include Lactational Amenorrhea Method (LAM) and Fertility Awareness Based methods (FAB). Current guidance from WHO indicates that virtually all these methods are safe for nearly every person with HIV (WHO, 2008).

MOH has put in place favorable policies that promote utilization of FP services in general and among groups such as PLWHA yet FP utilization is still reported as a challenge. This study assessed the current utilization and factors that influence utilization of FP among sexually active PLWHA in TASO Tororo; so as to design better strategies to improve FP service delivery.

1.1 BACKGROUND

At the Alma-Ata conference (1978), Family Planning services were highlighted as one of the basic and important strategies for reducing high risk pregnancies that often occurred too early, too late, and too frequent and also as a way to improve child heath. FP programs have helped women world wide to avoid millions of unintended pregnancies often associated with high risk abortions since the sixties (WHO, 2006).

As highlighted by the United Nations, to prevent unintended pregnancies among HIV positive women, provision of quality FP services is important. FP services together with preventing primary HIV infection in women have been reported to significantly reduce the proportion of infants infected with HIV by 35%-45%. Prevention of Mother to Child Transmission (PMTCT) starts with preventing the mother from having an unintended pregnancy. This emphasizes the public health significance of providing effective FP services to PLWHA (WHO, 2006).

Uganda has made good progress in reducing the HIV prevalence rate from over 18% in 1992 to 6.4 in 2005 (Ministry of Health, 2006). The country has not made similar progress in utilization of FP services. Although use of any form of contraception among married women increased from 15.4% in 1995 to 23% in 2005, the unmet need for FP also increased from 29% to 35% in a similar period. The Total Fertility Rate (TFR) remains among the highest in the world at 6.9 children per woman. In Uganda about 83,200 of the expected 1.3 million pregnancies annually are from HIV positive mothers and a number of these are often unintended (Health Sector Strategic Plan II/MoH, 2005).

The current limited access of effective FP, PMTCT and ART programs targeting HIV positive pregnant women among other factors puts heavy burden on these women's reproductive health, results in unsafe abortions, increases pediatric HIV through vertical transmission and affects house hold incomes (MoH, 2005). A number of studies have shown that integrating FP programs and HIV/AIDS care services have been found to improve FP use in a cost effective manner and current MOH policies promote integration of FP services in HIV/AIDS prevention, care and treatment services (MoH, 2005).

The Aids Support Organization (TASO) provides a number of services including FP services to PLWHA. These include counseling clients about FP methods, provision of some reversible FP methods such as oral contraceptives, condoms and DMPA injections. Information is also given on methods such as LAM and FAB methods and referrals are given for clients who opt for the surgical methods to nearby health units where they can be carried out (TASO, 2003). Of the 6779 sexually active clients who reported current use of any FP method; 59% reported condom use, 3% reported using depo-provera, 1% reported using pills, 37% were not on any method (TASO, 2008).

In TASO sixty percent (60%) of the registered clients are sexually active, other than use of condoms; the current use of modern contraceptives is estimated to be less than 20% (TASO, 2006). Therefore documenting current contraceptive use by PLWHA and the underlying factors is essential so as to effectively meet their FP needs, ensure a proper continuum of care, contribute to the better maternal health outcomes, help to prevent new HIV infections in infants born to HIV positive mothers and safeguard their reproductive rights.

1.2 STATEMENT OF THE PROBLEM

According to reports from the MoH (2005), over 1.4 million women in Uganda including PLWHA desire to delay pregnancy, space their children, or stop childbearing for various reasons but do not use any FP method. The Uganda HIV/AIDS Sero-behavioural survey (2006) report indicated that consistent condom use among sexually active PLWHA is at only 20%. In TASO, 60% of PLWHA are sexually active and of these, those reporting modern contraceptive use other than use of condoms are estimated to be less than 20% (TASO, 2006).

The low use of modern FP options other than condoms among PLWHA contributes to a rise in pregnancies that are unintended, new adult and pediatric HIV infections, poor health outcomes and low household incomes. The increasing availability of PMTCT and ART services has restored desire for children among PLWHA. However these interventions are not 100% effective in stopping HIV acquisition and transmission (FHI, 2008). Reducing unintended pregnancies among women living with HIV/AIDS by 16% is estimated to have an equivalent impact in averting HIV infection among infants as ART prophylaxis using single dose maternal and infant nevirapine (WHO, 2006). Effective FP programs therefore remain a good public health strategy.

Family planning counseling is given to all sexually active clients including referrals to other providers for methods not provided by TASO so as to increase FP use but modern FP use other than condoms is still low. TASO has set targets to have at least 50% of sexually active clients use various forms of modern FP methods (TASO, 2007). As TASO and other care givers for PLWHA scale up FP/ART/PMTCT services, there was need to document current use and factors influencing utilization of FP methods.

1.3 JUSTIFICATION OF THE STUDY

Current MOH policies promote integration of FP services in HIV/AIDS prevention, care and treatment services. This is hoped to deliver a broader range of services to meet more needs of PLWHA and also improve cost effectiveness in service delivery. With scale up programs of PMTCT and ART aimed at meeting the high demand of such services as a result of the HIV epidemic, timely and excellent opportunities for scale up of effective FP programs alongside such care and treatment efforts exist.

Ministry of Health targets to improve FP as measured by CPR from the current 23% to 40% by 2010 (MOH, 2005). Program managers and policy makers in the delivery of HIV/AIDS services will require more information on how to bridge the gap between the increasing need for effective FP services and the current low utilization of FP services. Universal access to FP services in an integrated manner is a priority issue as highlighted in policy documents of line ministries such as Ministry of Health and Ministry of Finance Planning and Economic Development.

The study was timely for TASO and others involved in giving care to PLWHA because it adds to existing knowledge about utilization of FP among sexually active PLWHA at such a time when there is declining stigma of the HIV epidemic and improving quality of life due to improving HIV/AIDS care and treatment services, PMTCT and ARV therapy that in themselves influence reproductive decisions among PLWHA. It will generate information that will help in formulation of evidence based decisions by program implementers to strengthen the uptake of FP services.

1.4 RESEARCH QUESTIONS

a) What is the current level of utilization of FP services by PLWHA?

b) What FP methods are utilized by PLWHA?

c) What factors influence utilization of FP methods among PLWHA?

1.5 OBJECTIVES OF THE STUDY

1.5.1 GENERAL OBJECTIVE

To assess utilization of family planning services among sexually active PLWHA in TASO Tororo, so as to design appropriate strategies for improvement in FP use thereby improving the lives of PLWHA.

1.5.2 SPECIFIC OBJECTIVES

a) To determine the current use of FP methods among sexually active PLWHA in TASO Tororo

b) To identify FP methods frequently utilized by sexually active PLWHA in TASO Tororo

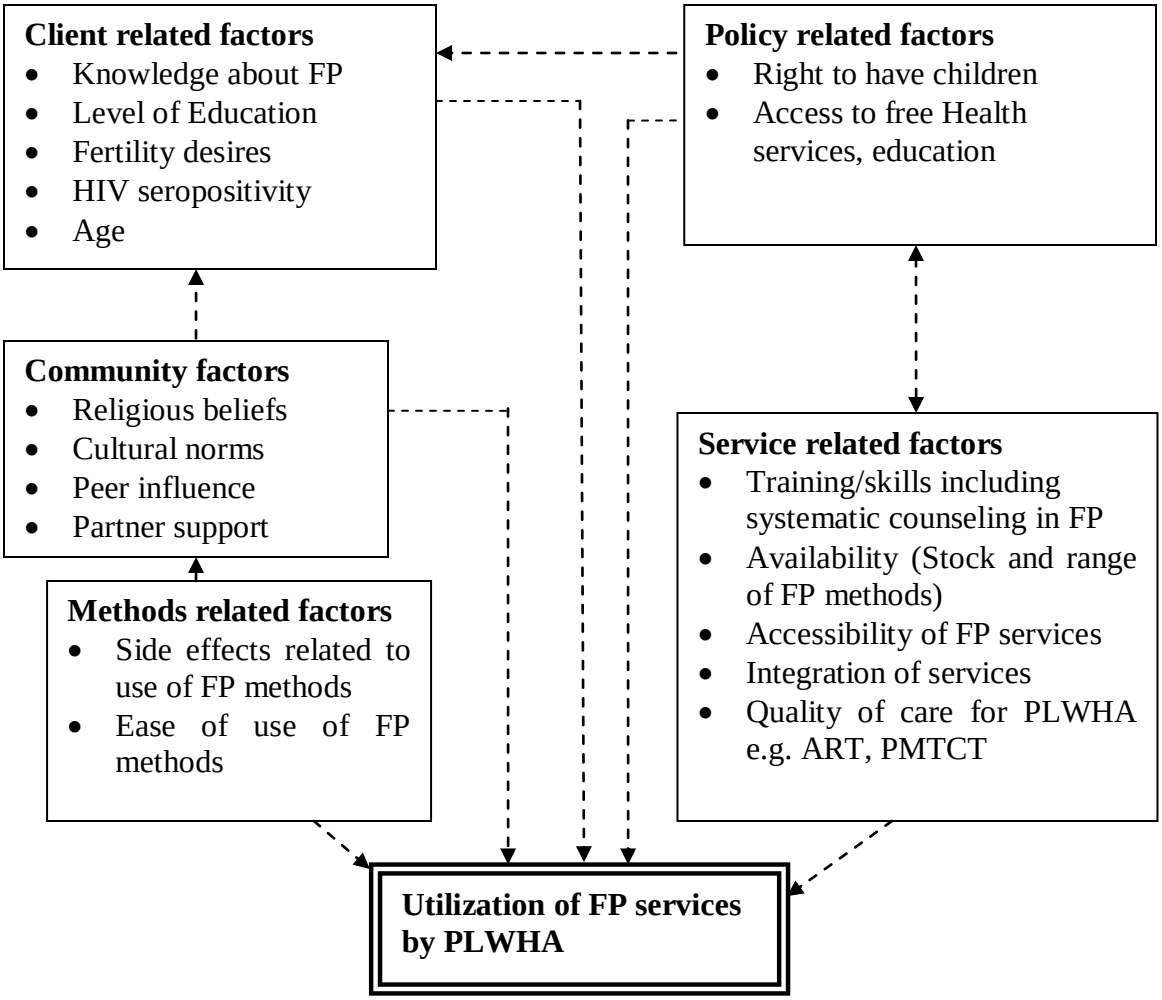
c) To identify client and community factors that influence uptake of FP methods among sexually active PLWHA in TASO Tororo

d) To identify service provider factors that influence uptake of FP services among sexually active PLWHA in TASO Tororo

1.6 CONCEPTUAL FRAMEWORK

Utilization of FP among PLWHA is believed to be influenced by a complex interaction of many factors at individual, social and service delivery levels. Individually, parity, education, knowledge about contraception and HIV seropositivity do influence utilization of FP. Socially; cultural norms such as the fatalism attributed to HIV, designated gender roles, age of sexual onset and the demand for bigger families influence the individual's conception choices. In addition, peer pressure; religious teachings and policy influence freedom of choice of an FP method. Also, FP service delivery factors such as attitudes and skills of the providers, method specific side effects, ease of use and access of FP method do act directly or indirectly to influence utilization of FP.

Diagrammatic Conceptual framework


Client related factors
Knowledge about FP
Level of Education
Fertility desires
HIV seropositivity
Age
Policy related factors
Right to have children
Access to free Health services, education
Community factors
Religious beliefs
Cultural norms
Peer influence
Partner support
Service related factors
Training/skills including systematic counseling in FP
Availability (Stock and range of FP methods)
Accessibility of FP services
Integration of services
Quality of care for PLWHA e.g. ART, PMTCT
Methods related factors
Side effects related to use of FP methods
Ease of use of FP methods
Utilization of FP services by PLWHA

CHAPTER TWO: LITERATURE REVIEW

The WHO (2007) HIV epidemic update indicated that an estimated 33.2 million people are living with HIV/AIDS. The HIV epidemic is mostly (67.8%) widespread in Africa and in particular Sub-Saharan Africa, it is largely heterosexual and affects mostly people within the reproductive age group. Provision of quality HIV care including effective FP services in Africa remains a challenge and therefore this region presents peculiar needs for effective delivery of FP services to PLWHA (WHO, 2007).

A study by Stanwood et al. (2007), in a cohort of mostly (68%) monogamous HIV-positive women in care in the United States showed that, among women who were sexually active but had not had tubal ligation, 90% were using some form of reversible contraceptive method and that PLWHA had reproductive patterns similar to those of their HIV negative counterparts.

A Ugandan (Tororo) study in a cohort of HIV-positive women receiving ART over a two year period showed that although 93 to 97% of all women reported not wanting any more children at any time, only 14% of women used permanent or semi-permanent FP methods and fewer than 8% used dual contraception by their second year on ART (Homsy et al., 2009).

Factors influencing utilization of FP services

2.1 Age and FP use

Rob et al. (2007), in their study on contextual influences on modern contraceptive use among women irrespective of their HIV status, in six countries in Sub-Saharan Africa that included

Kenya, Malawi, Tanzania, Ivory Cost, Burkina Faso, and Ghana, showed that younger age especially age group (20-29) years was more likely to be associated with use of modern contraceptives. For example findings in Tanzania the likelihood of contraceptive in age group (20–29) years was higher [OR=1.88: 95% CI 1.35-2.62] compared to age group (15–19) years [OR=1.47: 95% CI 0.85-2.55] and age group (40–49) years [OR=0.61: 95% CI 0.41-0.90].

Utomo et al. (1983), in their study on factors affecting use and non use of contraception among women irrespective of their HIV status following analysis showed that older age was one of the four major independent factors associated with the use and nonuse of contraception.

2.2 Parity and FP use

A study of demographic and socio-cultural factors influencing contraceptive use among currently married women irrespective of their HIV status in Uganda showed that higher contraceptive use was associated with a higher number of surviving children. Contraceptive use was 26.2% among women with three or more surviving children compared with 19.0% of women with no surviving children used contraceptives (Agyei and Migadde 1995).

Todd et al. (2008) in their study on factors associated with contraceptive use among hospitalized obstetric patients irrespective of their HIV status reported that contraceptive use was independently associated with having a greater number of living children (AOR=1.30, 95% CI: 1.20 – 1.41).

Feldman and Maposhere (2003), in their study to explore the impact of HIV/AIDS on sexual and reproductive lives of women living with HIV in Zimbabwe found that women with several children wanted to avoid further pregnancies. Another study on factors affecting use and non use of contraception showed that the number of living children was one of the major independent factors affecting the use and nonuse of contraception (Utomo et al. 1983).

2.3 HIV seropositivity, care and FP use

A study to explore the impact of HIV/AIDS on sexual and reproductive lives of women living with HIV in Zimbabwe showed that contraceptive and condom use increased markedly after HIV diagnosis, especially among those attending support groups (Feldman and Maposhere 2003).

In a Cameroon study, results showed that fertility rates were lower in HIV-Positive women compared to their HIV-Negative counterparts. The overall fertility rate for HIV positive women was 118.7 births per 1000 woman-years [95% CI 98.4 to 142.0] compared to 171.3 births per 1000 woman-years [95% CI 164.5 to 178.2] for HIV negative women. The ratio of the fertility rate in HIV positive women to the fertility rate of HIV negative women was 0.69 [95% CI 0.62 to 0.75] (Eugene and Wiysonge 2008).

Gray et al. (1998), in their study among women with HIV-1 infection to assess the effects of HIV-1 on pregnancy showed that pregnancy prevalence is greatly reduced in HIV-1-infected women, owing to lower rates of conception. The odds of pregnancy were low both in HIV-1-infected women without symptoms (0.49 [0.39-0.62]) and in women with symptoms of HIV-1-associated disease (0.23 [0.11-0.48]). The incidence rate of recognized pregnancy during the

prospective follow-up study was lower in HIV-1-positive than in HIV-1-negative women (23.5 vs 30.1 per 100 woman-years; adjusted risk ratio 0.73 [0.57-0.93]).

Fertility rates are an indirect measure of contraceptive prevalence, the low fertility rates observed in HIV-positive women in the above two studies may be an indicator of contraceptive decisions being made or contraceptives of one form or the other being used.

Homsy et al. (2009) in their prospective study of median follow up time of 2.4 years after starting ART to assess pregnancy outcomes among women on antiretroviral therapy in rural Uganda, showed that pregnancy incidence increased from 3.46 per 100 women-years (WY) in the first quarter to 9.5 per 100 WY at 24 months ($p<0.0001$).

Improvements in quality of HIV care coupled with the reduction in stigma in many communities are reported to contribute to a rise in fertility desires among PLWHA and consequently inconsistent use of contraceptive methods (FHI, 2008).

2.4 Education level and FP use

A study on fertility and FP trends among women irrespective of their HIV status in urban Karachi-Pakistan, showed a strong trend toward declining fertility and increasing utilization of contraceptives among relatively well-educated, middle-class population (Hagen et al., 1999).

Another study on factors affecting use and non use of contraception among women irrespective of their HIV status showed that current users of contraceptives were more educated or had

spouses who were more educated than their counterparts who were not current users. (Utomo et al., 1983)

Rob et al. (2007) in their study on contextual influences on modern contraceptive use among women irrespective of their HIV status, in six Sub-Saharan African countries that included Kenya, Malawi, Tanzania, Ivory Cost, Burkina Faso, and Ghana showed that secondary or higher educational attainment was more likely to be associated with of use of modern contraceptives in all the six countries; for example in Burkina Faso, higher educational attainment was more likely to be associated with of use of modern contraceptives [OR=2.52: 95% CI 1.71-3.72], compared lower educational attainment [OR=1.52: 95% CI 1.05-2.21].

2.5 Knowledge about FP methods and FP use

A study about knowledge as an important predictor of contraceptive use among young people irrespective of their HIV status showed that condom knowledge at logistic regression was associated with a 33% increased odds of ever using them (OR = 1.33) among both male and female participants (Ryan et al., 2007).

In another study on contraceptive use in women enrolled into preventive HIV vaccine trials reported insufficient knowledge of certain methods to be among the reasons for not using contraception and that misconceptions related to FP methods and their incorrect use might have led to inconsistent use resulting in undesired pregnancies (Kibuuka et al., 2009).

Another survey conducted in 14 countries among 7000 women irrespective of their HIV status between 14-40 years showed that knowledge gap in FP methods restricts women's contraceptive choices and hence use, and that women fail to take advantage of new contraceptive methods due to lack of knowledge and stay with the familiar options (Rossella, 2006).

2.6 Spouse and effect on FP use

A study on correlates of consistent condom use among HIV-positive African American women living in the United States showed that women with HIV were more likely to use condoms if they: had high partner communication self-efficacy [OR = 7.77, 95% CI 3.3-18.6, p = 0.001] and reported low partner-related barriers to condom use [OR = 4.68, 95% CI 1.8-12.2, p = 0.001] (Raiford et al., 2007).

In another study on contextual influences on modern contraceptive use among women irrespective of their HIV status in Sub-Saharan Africa, Rob et. al. (2007) showed that partner approval was more likely to be associated with of use of modern contraceptive in all the six countries that included Kenya, Malawi, Tanzania, Ivory Cost, Burkina Faso, and Ghana. For example partner approval was 4 times more likely to be associated with modern contraceptive use in Malawi [OR =3.59: 95% CI 2.93-4.39] and in Kenya [OR =3.49: 95% CI 2.73-4.46].

Partner opposition was found to cause a statistically significant increase in unmet need accounting for as much as 20 percent of unmet need reported by women and a shift in contraceptive use favoring traditional methods over modern methods (Wolff et al., 2000).

2.7 Influence of culture on FP use

Individual factors that determine a person's use of services such as FP are mediated by the characteristics of the community in which the individual lives. It is important to look beyond individual factors when examining FP use or non use. (Tsui and Stephenson 2002). Cultural norms and expectations are varied and include among others; fatalism attributed to HIV disease, fear of infecting the unborn child, gender roles designated by society such as the role of women in child bearing and the demand for bigger families (Srikanthan and Reid 2008).

A qualitative study to identify and describe perceptions of HIV positive Swazi women on childbearing showed that, cultural expectations override individual factors such as knowledge about ones HIV sero-positivity for example pressure from in-laws forces HIV positive women to have children despite their status, the desire to portray "femininity" and fulfill womanhood also contribute (Sukati and Shabangu 2006)

Often culture shapes perceptions of the individuals belonging to that culture on matters of fertility including contraceptive use. In a cross-sectional survey to assess use and identify condom use barriers, results showed that condoms use during the last occasional intercourse was only 36.8% of males and 47.5% of females. Failure to use condom was related to its perceived lack of efficacy [OR = 9.76 (3.71–30.0)] and perceived quality [OR = 3.61 (1.31–9.91)] (Sennen et al., 2005). In a study to explore religious beliefs among men and their influence their use of condoms showed that for religious reasons, most (63%) of the men avoided using condoms and were opposed to women's contraceptive use (Degni et al., 2008).

2.8 Health service delivery and FP use

Health services and in particular private FP service delivery play a big role in sexual and reproductive health behaviors, outcomes of risk perception and in this regard use of FP by PLWHA. In one study, results showed that the proximity of a private health facility in urban areas which likely reflects increased availability of FP methods, was positively associated with current use (odds ratio, 2.1) as was the presence of a higher number trained FP service providers (odds ratio 1.7) (Katende et al., 2003).

In a study on contraceptive use and incidence of pregnancy in Ivory Coast among 546 HIV positive women followed up for 2 years after delivery and given FP counseling and free contraceptives, results showed high proportions of women using modern contraception varying from 52 to 65% and low pregnancy incidence (calculated as the number of pregnancies for 100 women-years at risk) of 5.70 (95% CI: 4.17-7.23). Findings in this study indicated that FP counseling and regular follow-up was accompanied by a high rate of contraceptive use and a low pregnancy incidence among PLWHA after delivery (Brou et al., 2009).

In Rakai, Uganda, a community randomized trial of enhanced FP efforts in an HIV surveillance program showed a statistically significant higher use of hormonal contraceptives (23.2% vs. 19.9%) [p=0.009] and lower pregnancy rates (12.4% vs. 15.7%) [p=0.002] in the intervention arm as compared to the control arm. Investigators found that using trained volunteers and social marketing of contraceptives can improve contraceptive uptake among PLWHA (Lutalo et al., 2000).

CHAPTER THREE: METHODOLOGY

3.1 STUDY SITE AND POPULATION

3.11 STUDY SITE

The study was conducted in TASO Tororo, one of TASO (U) limited service centers located in eastern part of Uganda. The centre provides HIV/AIDS services to about 6000 active clients mainly from Tororo, Busia, Bugiri and Butaleja Districts. Services are provided at the centre clinics and also at outreach sites in the community. The centre essentially provides HIV/AIDS services and is the major referral point for PLWHA by HIV testing sites in the four Districts. These services provided are; care and treatment to PLWHA, with FP services inclusive. Referrals are given for surgical FP methods to other service providers. These FP services are provided at the service unit and at out reach clinics. Sixty percent (60%) of its active clients are sexually active and about 40% of the clients are in the reproductive age group (15-49 years). Sixty four percent (64%) of its clients are female. Eighty percent (80%) of the clients are of low literacy levels (informal and primary) and only 20% are of post primary level (TASO, 2006).

3.12 THE STUDY POPULATION

Sexually active PLWHA getting services from TASO Tororo of 18 years and above

3.2 STUDY DESIGN

This was a Cross-sectional study.

3.3 SAMPLE SIZE CALCULATIONS

The study sample size was 246 study participants, determined using the formula for simple random sampling using single proportions given by: (Kish Leslie, 1965)

$$\mathbf{n} = \frac{\mathbf{z^2\, p\, q}}{\mathbf{d^2}}$$

Where n = Sample size

z = z value corresponding to a 95% level of significance = 1.96

p = expected proportion of population practicing FP = 20% =0.2

(TASO, 2006)

q = (1 - p) = (1-0.2) = 0.8

d = absolute precision (5%)

Therefore, from the above sample size is:

$$n = \frac{1.96^2 \times 0.2 \times 0.8}{0.05 \times 0.05}$$

$$n = 0.614656/0.0025 = \mathbf{246}$$

3.4 SAMPLING PROCEDURE

Stratified random sampling was used.

Five (5) strata were identified from the TASO service delivery points; 1 centre clinic and four (4) outreach clinics. These represented the different clinics that TASO offers its services to PLWHA. The HIV/AIDS services including FP services provided at each of these service delivery points are essentially the same. One is located in an urban setting and the other four are rural outreach clinics.

Given the total average clinic attendance of 1450 clients for all service delivery points and that the estimated attendance for each service delivery point is: Centre 200, Lumino Outreach 500, Busia Outreach 300, Bugiri Outreach 300 and Mulanda Outreach 150 clients. TASO, (2006)

The proportionate sample size calculated from previous attendances per service centre was;

- TASO Centre: (200/1450) X 246 = 34
- Lumino Outreach = (500/1450) X 246 = 85
- Busia outreach = (300/1450) X 246 = 51
- Bugiri Outreach = (300/1450) X 246 = 51
- Mulanda Outreach = (150/1450) X 246 = 25

The expected sample size was 246 but the actual number of persons interviewed was 244. Also the actual number of respondents interviewed at each service centre as reflected in the results section had minor variations. These arose due to differences in actual attendances for that particular day and was discussed as a limitation.

Sample selection

A proportional sample was drawn randomly from each of the five (5) strata using previous attendance data obtained from respective clinics of the last visits. At every clinic all clients that come for TASO services are registered as they arrive and they are given arrival numbers to foster the process of first come first serve. It is from these numbers that every 6^{th} person as they registered was included in the sample at each clinic until the required number of respondents was attained as calculated above. If the 6^{th} person did not meet the criteria the next person was considered.

3.5 INCLUSION AND EXCLUSION CRITERIA

Inclusion criteria

- Sexually active male and female PLWHA getting services from TASO Tororo.

Exclusion criteria

- Sexually active clients registered and receiving TASO services for less than six months.
- PLWHA below 18 years: Legally they don't independently provide informed consent
- Sexually active females PLWHA past the reproductive age of 49. Less likely to use FP methods.
- Pregnant sexually active PLWHA or PLWHA whose spouse was currently pregnant.
- PLWHA who were very sick (physically or mentally) or had very sick patients.

3.6 STUDY VARIABLES

Dependent variables

- Use or non use of FP methods recorded as a binary variable where those that currently use FP methods responded as Yes.

Independent variables:

- Client & Community factors
    - Number of children with current sexual partner. This was categorized as a binary variable (≤3 Children and > 3children) to assess association with FP use (Parity).
    - HIV seropositivity – Affirmative responses (Yes) of the fact that their being HIV sero-positive or living with HIV/AIDS resulted into decisions to use FP methods for fear of infecting their unborn babies and preventing HIV transmission to their spouses (HIV seropositivity). Non affirmative responses (No) were the opposite.

- Knowledge about FP - knowing (Yes) was assessed as giving a correct response of at least one type of FP method or a description of the purpose of FP use being birth spacing or cessation. Not knowing (No) was assessed as giving responses not related to the two options (Knowledge).
- Spouse and FP use: (Spouse approval) – (Yes) this included participants that reported that their spouse(s) or sexual partner(s) supported their use of FP. Spouse non approval (No) included participants that reported that their spouse(s) or sexual partner(s) did not support their use of FP such disliking condom use.
- Culture – Social norms often irrespective of ones HIV status such as child bearing role of women, patriarchal values in African society, preference for large family sizes, and their influence on FP use. Influence (Yes) included affirmative responses and non influence (No) included the non affirmative responses (Culture).

- Service delivery factors
  - Access – (Yes) referred to participants who reported ease of getting their supply or re-supply used FP method. This was as per their affordability, assessed availability of the method and the providers either at a TASO service delivery point or at the Health unit/Hospital. No access (No) referred to a respondent who gave a non affirmative response (Access).
  - Source - this referred to a participant reporting the source of their current FP method either being TASO or non TASO sources (Health units, non governmental organizations, any other sources) of the FP method (Source).

- FP counseling – FP counseling provided by TASO counselors, includes information of the purpose of FP, limited FP methods, and referral at each service delivery point. Influence (Yes) referred to those participants who attributed receiving this service to their use of FP (FP counseling). No included non affirmative responses.
- Side effects - concerns related to FP methods – actual or perceived such menstrual irregularities, weight gain, and infertility attributed to hormonal FP methods affect FP use. Influence (Yes) included participants who gave affirmative responses that side effects influenced their FP use and non influence (No) included non affirmative responses (Side effects).

3.7 DATA COLLECTION

Quantitative data collection

Semi structured questionnaires were used to collect quantitative data. Selected research assistants who were familiar with English and the local languages spoken in these TASO service delivery points and also had some prior research experience in data collection. They underwent practicum training to equip them with the basic knowledge, attitudes and skills for data collection. Pre-testing of the questionnaire was done to improve the tool and prepare the research assistants for data collection as debriefing sessions were held to discuss the challenges faced during pre-testing sessions. The English questionnaire was translated into Samia, Luganda, Ateso and Adhola and back translated to English to ensure that the translated versions did not alter the meaning of the questions prior to their use. A computer data screen was prepared for data entry using EPI INFO

3.3 2000 soft ware and pre-tested with pre-test data that was removed prior to entry of the study data.

Qualitative data collection

Focus Group Discussions (FGD): Ten (10) groups of sexually active PLWHA were formed, two (2) groups at each of the five (5) service delivery points, one (1) for males and one (1) for females. The groups were homogeneous for sex with a range of 7-10 participants chosen purposively as is recommended (Khan et al, 1991). Role plays of the FGD were done to prepare for data collection at one of the centre clinics with the four research assistants. In addition to written documentation of responses from study participants, tape recording was done after obtaining verbal consent to ensure that all feedback was captured for analysis.

The moderation of the discussion by the research assistants and feedback from participants was done in the languages best spoken by the participants. The feedback in the local languages (Samia, Luganda, Ateso and Adhola) was then translated to English by research assistants who were well versed with both the respective local language and English. Independent persons known to be well versed with both the local language and English reviewed the translations to ensure that the meaning of participant responses had not been altered.

Key Informants (KI): A total of five (5) key informants were identified. These were three (3) FP managers, one (1) In charge of TASO FP program, and one (1) Health sub-district in charge distributed where the service delivery points are located. These were conducted by the principal investigator himself. All responses were recorded in English as the KI all spoke English.

3.8 QUALITY CONTROL

Quality issues were addressed through the following measures to ensure that the data generated was complete, reliable, accurate and above all reproducible using the same methods. These measures contributed towards both internal and external validity of the study.

- Training of research assistants with whom data collection was done. All the four had prior experience in collection of both quantitative and qualitative data (facilitating FGD) and previous training in social sciences. They received a one day training that focused on participant handling skills such as interviewing skills, content and meaning of questions, correct recording of responses, how to conduct FGD and orientation to study objectives and procedures. The training also included review of the various modern and traditional FP methods and how they work or used in contraception. They were given information on ethical issues such as the need to observe confidentiality and obtain informed consent from participants prior to administering study tools.

- Pre-testing the data collection tools: The pre-testing was done in TASO Tororo centre. Tororo centre was chosen because it is the centre for other outreach points and also participants speaking Samia, Luganda, Ateso and Adhola can easily be found at the centre. This exercise helped to improve the data collection tools in terms of content and order of the questions in relation to the study objectives and necessary adjustments were made prior to data collection.

- Support supervision of the research assistant was done on randomly selected sit in sessions to observe the conduct of the sessions. Meetings were held to address problems and clarify issues that could hamper collection of good data with assistants found to have problems. This also boosted their morale in collection of quality data.

- Checking for completeness and accuracy of completed data collection forms was done at the end of each day of data collection and gaps identified such as missing gender or site of service delivery were addressed with the respective research assistants.

3.9 DATA MANAGEMENT AND ANALYSIS

Quantitative data management

The forms were properly filled by serial number and entry was done by the principle investigator using EPI INFO 3.4 2007 soft ware. Preliminary frequencies were run as well as eye balling to identify missing variables and comparison was done on some randomly picked study subject's data on the forms and the entered electronic data to check for consistency. The variable names used during formation of the data capture screen were saved in the computer and hard copy with an explanation of their meaning. Entry was done and the entered data was intermittently cleaned to avoid any data entry errors and inconsistent entries. Data was backed up by saving it in different folders in the computer and also on a removable flash disk. Data was thereafter exported to SPSS version 15 for final editing and analysis. Also, Excel was used to complement the two statistical packages whenever necessary.

Quantitative data analysis:

To address the first objective: Current FP use among sexually active PLWHA, was reported for all methods as a percentage (%) where the numerator was the number utilizing FP and the denominator was the total number of sexually active participants.

To address the second objective: FP methods frequently utilized by sexually active PLWHA, was analyzed by counts of frequencies for individual methods.

To address the third and fourth objective: Factors that were associated with use or non use of FP among sexually active PLWHA.

Initially, bivariable analysis was performed between FP use (dependent variable) and each of the potential factors associated with FP use (independent variables), one at a time. These included client and community factors (age, education level, parity, HIV/AIDS, knowledge, spouse, culture) and Service delivery factors (access, source, FP counseling, FP side effects). Their odds ratios (OR) at 95% confidence intervals (CI) and p-values were obtained. The findings at this stage helped us to identify important associations.

Then multivariable analysis was performed using the logistic regression model. Factors that were significantly associated with FP use at bivariable analysis ($p < 0.05$, those with p-values < or = 0.1) and those not significant but with previous evidence from literature review indicating possible association with FP use were considered in the logistic regression model.

Confounding factors that were not primary variables of interest but would possibly have an effect on the association of other primary variables of interest with FP use such as sex and age were also considered in the model to control for their effect. Their respective odds ratios (OR) associated with these potential factors were reported as a measure of strength, together with the respective 95% confidence intervals.

Qualitative data analysis

Thematic analysis was done for the qualitative data generated. The data was reviewed and coded by themes and sub-themes. Master sheets were used to facilitate comparison across different themes. Some of the reported statements by key informants and Focus group study participants were quoted verbatim.

3.10 ETHICAL CONSIDERATIONS

The proposal was approved by the Higher Degrees Ethics and Research committee of Makerere University School of Public Health and the National Council of Science and Technology.

Permission to conduct the study was sought from TASO Ethics and Research committee, and the In charge of the TASO sites/clinics. The study participants gave an informed consent of the study prior to data collection. Confidentiality of individual client information was ensured by use of unique identifiers for study participants and limiting access to the principle investigator and research assistants of study information by storing the completed questionnaires and all documents with participant information in a lockable cabinet.

CHAPTER FOUR: RESULTS

In this cross-sectional study a structured questionnaire was administered to 244 study participants. Qualitative data was collected from 10 focus group discussions and 5 key informants to complement the quantitative data.

The distribution of respondents by site of service delivery was TASO Centre 34, Lumino Outreach 83, Busia outreach 51, Bugiri Outreach 51 and Mulanda Outreach 25.

Table 1: Socio-demographic characteristics of the respondents

Variable	Frequency	Percentage (%)
Sex		
Female	182	74.6
Male	62	25.4
Age Group		
Below 20 years	1	0.4
20 - 29 years	53	21.7
30 - 39 years	134	54.9
40 - 49 years	52	21.3
50 and above	4	1.6
Marital status		
Never married	3	1.2
[1]Married	184	75.4
[2]Separated/Divorced	15	6.1
Widowed	42	17.2
Educational level		
None	49	20.1
Primary	147	60.2
Secondary	45	18.4
Tertiary	2	0.8
Post tertiary	1	0.4
Religion		
Catholic	82	33.6
Protestant	81	33.2
Moslem	18	7.4
[3]Others	63	25.8
Residence		
Urban	19	7.8
Peri-Urban	17	7.0
Rural	208	85.2

[1]Married: Included the "formal" (traditional and church) and "informal" (cohabiting and considered themselves married)

[2]Separated/Divorced: This included those who were at the time of the interview separated from their spouses regardless of whether they re-united or intended to re-unite later

[3]Others: Included the Pentecostals, Seventh Day Adventists (SDA) and Jehovah's witnesses

The mean age of the participants was 34.7 (+/- 6.8) years, age range was 18-68, and 54.9% of the respondents were in the age bracket of 30-39 years. Most of the participants were females (74.6%) and married (75.4%). Most of the respondents (80.3%) had either attained no formal education or ended at primary level. The majority of the respondents (85.2%) were residing in rural areas.

4.1 Current FP use for all methods

Of the 244 respondents interviewed. Prevalence of all FP methods (use of any form of either modern or traditional FP method) was 87.3% among sexually active PLWHA seeking services from Tororo.

4.2 Family planning methods frequently used by PLWHA

Table 2: Current FP methods used by PLWHA receiving TASO services

FP method	Frequency	Percentage
Modern		
Condoms	106	43.4
Depo-Provera	47	19.3
Pills	20	8.2
Tubal Ligation	18	7.4
Implants	4	1.6
IUCD	1	0.4
Traditional		
Lactational Amenorrhea Method	9	3.7
Fertility Awareness Based Method	9	3.7
Herbs	3	1.2
Others		
Non response	27	11.1
Total	**244**	**100.00**

Among the types of FP methods used by respondents receiving TASO Tororo services, condoms were the most used (43.4%). Other than condoms, modern FP methods (pills, depo-provera, tubal ligation, implants) were used by 36.9% of the respondents. Others (11.1%) declined to give a response as to which method they currently used.

Findings are similar with results from FGDs:

> *FP methods frequently used by PLWHA were condoms, followed by pills and injections (depo-provera). A few participants mentioned use of natural and surgical FP methods.*
>
> ***Findings across all FGD of - males and females***

Figure 1: Summary of FP methods used by PLWHA and provided by TASO Tororo

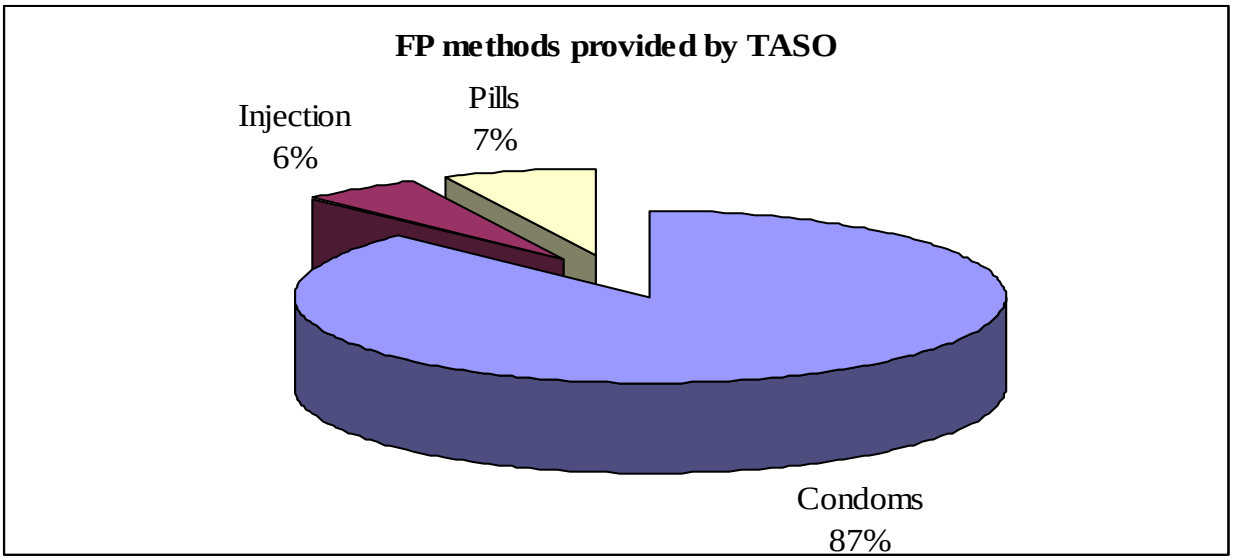


Figure 1 shows that PLWHA whose source of FP methods was TASO Tororo, the majority (87%) used condoms as form of FP

"We always provide condoms to our clients at every service delivery point free of charge and they are always available as compared to pills and injections. Clients are given free FP pills and injections and when these are not available, they are referred to nearby health centers. Other long-term methods such as Tubal ligation, IUCD, implants are currently not provided by TASO, so participants requiring them are also referred to FP service providers". ***TASO Tororo FP program manager and Medical Coordinator (KI).***

"TASO only provides condoms, pills and injections, meaning you have to go to the health unit if you want or use what is not there and that process is not sometimes very easy for us, we wish TASO provides all the methods we need". ***Females, all FGD***

4.3 Effect of age and education on FP use

Table 3: Effect of participant's age groups and Education level on FP use

Independent variables	FP utilization		Current use of FP	Unadjusted OR (95% CI)	P-Values
	Use	Non Use			
Effect of Age Groups on FP use					
Below 20 years	1	0	1/1 (100%)	-	0.702
20 - 29 years	42	11	42 (79.2%)	0.45 (0.20-1.00)	0.047*
30 - 39 years	119	15	119 (88.8%)	1.35(0.64-2.87)	0.434
40 - 49 years	48	4	48 (92.3%)	1.96 (0.66-5.89)	0.221
50 years and above	3	1	3 (75.0%)	0.43 (0.04-4.25)	0.457
Educational level on FP use					
None	42	7	42 (85.7%)	0.84(0.34-2.09)	0.710
Primary	127	20	127 (86.4%)	0.81 (0.37-1.78)	0.603
Secondary	41	4	41 (91.1%)	1.61 (0.53-4.85)	0.395
Tertiary and Post tertiary	3	0	3 (100%)	-	0.506

* ***Statistically significant factor***

As reflected in table 3 above, being within the age group 20-29 years had a statistically significant association with FP use (p=0.047) than being in other age groups. Education level was less likely to be associated with FP use.

4.4 Client and community factors and FP use

Table 4: Client and community factors and FP use

Independent variables	FP utilization		Current use of FP	Unadjusted OR (95% CI)	P-Values
	Use	Non Use			
Parity					
≤3 Children	51	8	51 (86.4%)	0.91(0.38- 2.15)	0.821
>3 Children	162	23	162 (87.6%)		
Culture					
Yes	137	17	137 (89.0%)	1.48(0.69-3.18)	0.307
No	76	14	76 (84.4%)		
HIV seropositivity					
Yes	129	17	129 (88.4%)	1.27(0.59-2.70)	0.544
No	84	14	84 (85.7%)		
Spouse Approval					
Yes	156	9	156 (94.5%)	6.69(2.91-15.39)	<0.001*
No	57	22	57 (72.2%)		
Knowledge					
Yes	193	16	193 (92.3)	9.05(3.90-20.99)	<0.001*
No	20	15	20 (57.1)		

** **Statistically significant factor***

Table 4 above shows that participants who reported approval of their spouse were 7 times more likely to use of FP than those who reported no approval of their spouse. Also participants who had knowledge about FP methods were 9 times more likely use of FP than those who had no knowledge about FP methods.

The findings were similar to those of FGD:

> *"I have used FP injections for the past five years and I was told which problems to expect and those problems of FP people talk about just discourage others, and I think they usually come if you have additional sickness, as for me I have no problem with FP and even if I were to get a problem I would go back and get treatment as I was told".*
>
> ***Female respondent, Lumino FGD***

> *"Some of our spouses want to have sex without a condom and since some of them don't come to TASO for counseling with us, they don't listen to us when we share with them the benefits of using the condoms, so taking them home from TASO is sometimes useless". "If both of you happen to be HIV positive and come for TASO services as couple using condoms is not as difficult compared to when you come alone".* ***Females, Bugiri FGD***

4.5 Service delivery related factors

Table 5: Factors related to FP service delivery and utilization of FP methods

Independent variables	FP use		Currently using FP	Unadjusted OR (95% CI)	P-Values
	Use	Non Use			
Access					
Yes	194	22	194 (89.8%)	4.18(1.69-10.35)	0.001*
No	19	9	19 (67.9%)		
Source of FP					
TASO	85	19	85 (81.7%)	0.42(0.19-0.91)	0.025*
Non TASO source	128	12	128 (91.4%)		
FP Counseling					
Yes	189	22	189 (89.6%)	3.22(1.33-7.80)	0.007*
No	24	9	24 (72.7%)		
Side effects					
Yes	93	11	93 (89.4%)	1.41(0.64-3.09)	0.390
No	120	20	120 (85.7%)		

* ***Statistically significant factor***

Table 5 above shows that access to FP methods, TASO being a source of FP methods and FP counseling were more likely to be associated with use of FP.

The findings were similar to those of FGD:

"For us men we do not use most of the available family planning methods, but we always get condoms that can last about a month whenever TASO comes to treat us every month. TASO should continue bringing for us condoms because when we have them in our houses, it is convenient for us". ***Males, Bugiri FGD***

"TASO counselors really help us to cope with the challenges of living with HIV/AIDS. They also give us counseling on FP and how the methods work, but it would have been better if we were to be supported with our spouses because the counseling directly benefits only one partner in the relationship". ***Females, all FGD***

"Trained FP health care providers are few and often overworked because they also perform a number of other activities and this has affected the quality of FP services provided and contributed to low client satisfaction". "Also the necessary capacity (Doctors and equipment) to provide long term methods are often also limited". ***Bugiri/Buyinja HC IV FP program manager (KI)***

"I was not having my periods and I decided to leave FP injection after 8 years because I was told …that…, ….the menstrual flows help to reduce the amount of HIV in the body and you get more sickness if this doesn't happen, but I resumed after I explained this to my counselor and she told me that it was not true. She explained … was an expected effect of the FP injection and has nothing to do with the increase in the amount of HIV in the blood…, the amount of HIV and sicknesses may increase among PLWHA not using FP, especially if they are not using ARVs". ***Female participant, Mulanda***

4.6 Multivariable analysis

The variables included in the final logistic regression model were HIV/AIDS, spouse, knowledge on FP use, access of FP services, source of FP, FP counseling, side effects, age, and educational level.

To adjust for the potential confounding effect of age, it was categorized at intervals of 10 years and each of these was included individually in the model while using the others as comparative categories. The same was done with education levels.

The results of the model used are shown in table 6. The logistic regression model that best predicts use of FP from the various predictors considered has p-value <0.001. In the model 243 observations are included.

The model used was: Logit P (predictors of FP use) = $\alpha + \beta_1$ Spouse approval + β_2 influence of FP side effects + β_3 Having access + β_4 Influence of HIV/AIDS + β_5 knowledge of FP methods + β_6 source (TASO) + β_7 Influence of FP counseling + β_8 Effect of age (category of 20-29) + β_9 Effect of education level (No education)

Table 6: Odds ratios and p-values obtained from the best model

Predictors of use of FP services	Odds Ratio	P>|z|	[95% Conf. Interval]
Spouse approval	9.335	0.000*	3.351- 26.000
FP side effects	0.573	0.280	0.208 -1.574
Access to FP	1.221	0.760	0.339 - 4.405
HIV seropositivity	1.517	0.406	0.567 - 4.060
Knowledge of FP methods	3.742	0.013*	1.321- 10.603
Source (TASO)	0.374	0.078	0.125 - 1.116
FP counseling provided by TASO	1.890	0.284	0.590 - 6.054
Age group 20-29 years	0.410	0.077	0.153 - 1.100
Education (None)	0.693	0.528	0.222 - 2.164

**** Statistically significant factor***

The logistic regression model after adjusting for other factors, results indicated statistically significant predictor factors to FP use to be; spouse approval and knowledge of FP methods. It was 9 times more likely that participants that reported approval of their spouse will use FP [95% CI 3.35-26.00: P<0.001] than those that didn't report approval of their spouse. It was also 4 times more likely that participants who had knowledge on FP will use FP methods [95% CI 1.32-10.60: P=0.013].

Although FP counseling was not statistically significant in the model at 5% level, it increases the probability of using FP by more than 80% in those that reported influence of FP counseling compared to those that reported no influence of FP counseling. [OR=1.89: 95% CI 0.590 - 6.054: P=0.284]. Influence of HIV seropositivity though not statistically significant in the model at a 5% level, it increases probability of using FP by about 52% in those who reported its influence than in those that reported no influence [OR=1.52: 95% CI 0.567-4.060: P=0.406]. Also access to FP methods though not statistically significant in the model at a 5% level, it increases

probability of using FP by more than 22% in those who reported having access to FP compared to those that reported no access to FP methods. [OR=1.22: 95% CI 0.34-4.41: P=0.760].

Other predictor factors such as FP side effects and TASO being the source of FP were less likely to influence FP use at their [OR=0.57: 95% CI 0.21-1.57: P=0.280] and [OR=0.37: 95% CI 0.12-1.12: P=0.078] respectively.

The findings were similar to those of FGD:

> *"For me I got HIV before giving birth to any child, am not using FP methods because am looking for a child of my own".* ***Female respondent Tororo centre***

> *"Although some health care providers have been trained in provision of FP services, they were often few and overworked because a number of activities are often integrated that has contributed to the unmet need for FP services. Also sometimes we do not have the medical officers to conduct the procedures all the time, when the need arises we refer them to the District hospital".* ***KI FP focal person Nankoma (Bugiri Health Sub District)***

> *"Looking at the suffering related to HIV/AIDS such as frequent illnesses, we should limit children as PLWHA and use FP methods".* ***Female participant, Busia FGD***

CHAPTER FIVE: DISCUSSION

5.1 Current use of FP methods

The majority (87.3%) of sexually active PLWHA seeking TASO Tororo services were currently using some form of either modern or traditional FP method such as condoms, pills, depo-provera, implants, IUCD, tubal ligation, LAM, FAB, and herbs. This current contraceptive prevalence of any FP method is quite higher than the National prevalence of 23.7% among currently married women aged 15-49 years (UDHS, 2006) and also higher for the region.

One possible reason for this high difference could be the difference in reference populations. The National prevalence was based on data from the general population of married women not necessarily receiving routine FP counseling while the prevalence from this study was based on a cohort of PLWHA receiving routine FP counseling and provided with free condoms. The findings also show that current use of any method (condoms inclusive) among PLWHA may be higher than in the general population due to the promotion and emphasis on condom use for prevention of STI. An Ivory Coast study showed similar high CPR of up to 65% of modern FP methods only among HIV positive women enrolled on a PMTCT program (Brou et al, 2009). Another study among HIV infected women attending a comprehensive care centre at Kenyatta National Hospital showed up to 44.2% use of all FP methods (Mutiso et. al. 2008).

Another possible reason for the high CPR listed as a study limitation was possible response error attributed to responses of condom use as an FP method, although condoms were the most used FP method, the majority (56%) of PLWHA reported the main reason for condom use was not necessarily for FP purposes but prevention of STIs.

5.2 Frequently used FP methods

Among FP methods provided by TASO to sexually active PLWHA seeking TASO services condoms were the most (87%) used, pills (7%) and injections (6%). Other than condoms use, the results showed 13% use of effective contraceptive methods. Comparison of these results with TASO (2008) data that reported 1% use of pills and 3% use of depo-provera, there is agreement that use of modern contraception other condoms and provided by TASO Tororo is less than the National prevalence of about 16% (UDHS, 2006).

The frequently used FP methods by PLWHA seeking services from TASO Tororo compare with results from a study on contraceptive use among HIV-positive women attending comprehensive care in Kenyatta National Hospital that showed that condoms were the most (81.5%) used contraceptive method and others accounted for 19.5% (Mutiso et al 2008). Also in-depth interviews of FGDs indicated that frequently used FP methods were condoms (provided monthly and free of charge), followed by pills and injections that according to TASO Tororo KI are sometimes are not as available as condoms and may require referral.

The findings reflect the current situation of FP use in TASO and underscores current efforts by TASO to scale up effective contraceptive use among PLWHA to 50% (TASO, 2007) in line with MoH and National strategic objectives for scale up of family services countrywide.

5.3 Factors associated with FP use

5.3.1 Knowledge about FP and FP use

There was a statistically significant association of knowledge about FP and use of FP methods at multivariable analysis, participants who had knowledge about FP methods were about 4 times more likely to use FP [OR=3.7, p=0.013]. These findings compare with a study by Ryan et al (2007) that showed that condom knowledge was an important predictor of use, at logistic regression knowledge was associated with 33% (OR = 1.33) increased odds of using condoms.

Knowledge of FP in this study was assessed as giving a correct response of at least one FP method or the purpose of FP use being birth spacing or cessation and not knowing was assessed as giving responses not related to these two options. In this study the majority (86.5%) had knowledge about FP methods and this compares with findings from the UDHS (2006) that indicated nearly universal (97 in women and 98% in men) knowledge of FP.

Rossella et al, 2006 in their study showed that knowledge gap in FP methods restricts women's contraceptive choices and hence use, and that women fail to take advantage of new contraceptive methods due to lack of knowledge and stay with the familiar options. The findings in this study show that Individuals who have adequate information about the available methods of contraception are better able to develop a rational approach to planning their families.

Some testimonies of FP users quoted verbatim from FGDs indicate that lack of correct information such as myths about FP methods may affect FP use. However, when correct knowledge is given, users who are discouraged by myths may resume FP use.

5.3.2 Approval of spouse and FP use

The association of approval of ones spouse and FP use was statistically significant at multivariable analysis where approval of ones spouse was nearly 9 times more likely to be associated with FP use [OR=9.34, p<0.001]. These findings compare with the study among women regardless of HIV status by Rob et al (2007) that showed that partner approval was more likely to be associated with of use of modern contraceptive in six countries that included Kenya, Malawi, Tanzania, Ivory Cost, Burkina Faso, and Ghana. For example partner approval was 4 times more likely to be associated with modern contraceptive use in Malawi [OR =3.59: 95% CI 2.93-4.39] and in Kenya [OR =3.49: 95% CI 2.73-4.46].

Also Wolff et al (2000) in their study showed that partner opposition was found to account for as much as 20 percent of unmet need reported by women. Raiford et al. (2007) showed that women with HIV were more likely to use condoms if they: had high partner communication self-efficacy [OR = 7.77, 95% CI 3.3-18.6, p = 0.001] and reported low partner-related barriers to condom use [OR = 4.68, 95% CI 1.8-12.2, p = 0.001], they suggest that HIV interventions may enhance consistent condom use by targeting women's self-efficacy to communicate with their partners and women's perception of personal and partner-related barriers to condom use.

Findings from FGDs showed that opinions of sexual partners of PLWHA especially the males towards FP use did influence FP use. It has been reported that in a number of African societies that are largely patriarchal, Uganda inclusive, women face challenges such as partner opposition in making fertility related decisions. (MoH, 2005).

5.3.3 HIV Seropositivity and FP use

Although HIV seropositivity or having AIDS was more than 50% (OR=1.52) likely to be associated with use of FP, the strength of the association not statistically significant [p=0.41] at multivariable analysis. The findings indicated that HIV seropositivity is not significantly associated with FP use. Although Eugene and Wiysonge (2008) showed that ratio of the fertility rate in HIV positive women to the fertility rate of HIV negative women was 0.69 [95% CI 0.62 to 0.75] and that pregnancy rates were lower in the HIV positive women compared to their counterparts, meaning that PLWHA are likely to use contraceptives than HIV Negative women.

These findings may reflect the changing fertility decisions among PLWHA with improving quality of care. The findings probably reflect an important observation by FHI (2008), "Improvement in quality of HIV care such as PMTCT and ART for PLWHA today, coupled with the reduction in stigma in many communities is reported to contribute to a rise in fertility desires and pregnancy rates among PLWHA".

Findings from FGDs indicated that women living with HIV/AIDS have fertility desires just like their HIV Negative counterparts and would wish to have at least a child of their own. They have hope in getting HIV negative babies despite their status due to programs such as PMTCT. However they desire to regulate fertility due to the suffering related to raising many children while living with HIV/AIDS.

5.3.4 Family planning counseling by TASO and FP use

The association FP counseling provided by TASO was not statistically significant at multivariable analysis [p=0.28], it was still positive [OR=1.89], meaning that of those who reported influence of FP counseling more than 80% were likely to use FP methods. The positive effects of FP counseling shown above are in line with results of a study on contraceptive use and incidence of pregnancy in Ivory Coast. Among 546 HIV positive women who received FP counseling, free contraceptives and followed up for 2 years after delivery, results showed that family planning counseling and regular follow-up was accompanied by a high rate of contraceptive use (52 to 65%), and consecutively a low pregnancy incidence of 5.70 [95%CI: 4.17-7.23] among HIV-positive mothers (Brou et al, 200). The fact that FP counseling was not significantly associated with FP use may have been confounded by the factors not assessed in this study such as the effect of receiving FP counseling as a couple.

The effect of FP counseling on FP use is quite important in correction of myths and misconceptions related to FP use, creating awareness of the various FP options for PLWHA to make their preferred choices of FP methods, and in addressing other FP related barriers. This was often reflected in the feedback from FGDs and KIs.

5.3.5 Access and FP use

Although 22% of those who reported access were more likely to use FP the association was not statistically significant at multivariable analysis [OR=1.22, 95% CI 0.34-4.41, p=0.76]. The non significance of the association at multivariable level may have been influenced by the limited range of FP options provided by TASO (condoms and sometimes pills and injections) their

monthly service provider and the additional efforts that have to made to get methods not provided by TASO in the health units/Hospitals.

The positive effects of reporting access to FP being associated with FP use compare with findings of a Rakai study, which enhanced FP efforts in one arm (interventional) and left the other (control). There was a statistically significant higher use of hormonal contraceptives (23.2% vs. 19.9%) and lower pregnancy rates (12.4% vs. 15.7%) in the intervention arm as compared to the control arm. Investigators found that using trained volunteers and social marketing to improve access to contraceptives can improve contraceptive uptake among PLWHA (Lutalo, 2000).

Although access had positive effects on use of FP methods, FGD and KI reported that TASO provided limited options. Another KI expressed this challenge that Health units/Hospitals face in providing effective FP services.

5.4 Limitations of the study

The method of sampling used could have introduced a design effect due to possible variations within strata that was not adjusted for in this sample size calculations; this may have affected the study findings. This was an error and therefore a limitation of the study.

Self reports by study participants are associated with response bias, where a participant's response may not necessarily be their true opinion for various reasons such as fear of victimization; for example when assessing FP counseling services provided by TASO, the responses from the interviewed study participants could have been subjective however this was addressed by training research assistants to improve questioning techniques. Also the use of additional in-depth data collection methods to compliment the quantitative method helped to address this form of information bias.

Another form of responses bias could have arisen when assessing currently used FP methods and in particular condom use a form of FP method. This is because condoms are promoted not primarily for FP purposes but as a way to prevent STIs. This was addressed through complimentary information of FGD where participants were able to outline the frequently used methods.

6.0 CONCLUSIONS AND RECOMMENDATIONS

This chapter presents conclusions and recommendations which are based on the findings of the study.

6.1 Conclusions

In this study, the majority of PLWHA seeking TASO services reported use of some method of FP. Condoms were the most frequently reported FP method yet condoms are not primarily used for FP purposes among PLWHA. Current use of modern contraceptive options other than condoms was at 13%. Knowledge about FP methods and approval of ones spouse were significant predictors of FP use. Other factors that were more likely to be associated with FP use were FP counseling provided by TASO, HIV seropositivity, and access to FP methods.

6.2 Recommendations

The recommendations are proposed to TASO management, FP service providers, DHT teams and other direct program implementers for improving use of FP services among PLWHA.

Modern contraceptive method use other than condoms is still low. Misconceptions and myths that commonly prevail in communities might have contributed to non use. There is need to improve method specific knowledge on a wide range of contraceptives and address related safety concerns. PLWHA and have successfully used FP methods can be involved to create awareness among their peers.

Spouse support was associated with FP use of all methods and spouse opposition has been shown to reduce FP use. Targeting spouses of PLWHA through counseling sessions (discussing couple negotiation skills for FP use, encouraging couple FP counseling sessions) to address partner-related barriers may encourage FP use.

Service delivery related factors such as access to wide range of FP methods, FP counseling were associated with FP use. Effective delivery of FP services to PLWHA (availability and access of supplies through outlets or outreach services, referral linkages, and training in FP counseling and method provision) need to be strengthened.

There is need for ongoing monitoring of FP service provision and the effect of FP use on pregnancy incidences among PLWHA enrolled in care and receiving regular FP services. This will help in ongoing assessment of the effectiveness of the strategies being implemented.

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APPENDIX

APPENDIX I: CONSENT FORM

Good morning/afternoon. My name is……; we are working with TASO. We are conducting a study about FP utilization that has been approved by Makerere University and permission given by TASO. We are asking clients in TASO if they can participate; you have been selected at random among clients attending the clinic today.

Taking part in this study is voluntary. If you agree to participate, I will ask you some questions about yourself. The interview will take about 20 minutes. There are no anticipated problems but in case some questions make you feel uncomfortable, you are free to express your discomfort or decide not to respond. If you choose not to participate or withdraw from the interview at any point, the support given to you by TASO will not be affected in any way.

There are no direct benefits to you for choosing to participate in this interview. However, you will be helping TASO and others in future to develop better FP services so as to improve the quality of life of PLWHA

We will do our best to ensure that your personal information is kept private. Your record will not have your name. It will be kept in a secure place and only used for purposes of the study.

At this time, do you want to ask me anything about the study? If you have any questions at any time even after the interview, feel free to ask. The phone contact of the head of the study team is provided to you in case you will need more information about the study (0772618157)

This consent form has been read and explained to me and I have understood, and my questions have been addressed. I therefore willingly agree to take part in the study.

Signature/Thumb print of the participant and date_____, _____

Names of Interviewer, Signature and date_____, _____,_____

APPENDIX II: INTERVIEW QUESTIONNAIRE IN ENGLISH

UTILIZATION OF FAMILY PLANNING AMONG SEXUALLY ACTIVE PEOPLE LIVING WITH HIV/AIDS IN TASO TORORO

You are requested to participate in the above-mentioned study. If you agree to participate you will be asked questions about yourself, HIV/AIDS and questions about people around you. The interview will take approximately 30 minutes to complete. The interviewer will explain to you all the questions, and everything discussed with you will remain confidential and will help TASO and others working with PLWHA to provide better FP services.

Participant's ID No ……...….. Date of interview …../ …../ …….. (dd/mm/yyyy)

Name of interviewer …….

Sub section A: Respondent characteristics Participant ID No……

1. Site of service delivery
   1. TASO Centre 2.Lumino 3.Busia 4.Bugiri 5.Mulanda
2. Sex 1.Female 2.Male
3. Age of the respondent ……..
4. Marital status of the respondent
   1. Never Married 2.Married 3.Divorced/Separated 4.Widowed
5. Highest level of education attained by respondent
   1. None 2.Primary 3.Secondary 4. Tertiary 5.Post tertiary
6. Religion
   1. Catholic 2.Protestant 3.Moslem 4.Born Again 5.Other *(Specify)*……...
7. Residence
   1. Urban 2. Peri-Urban. 3. Rural

Sub section B: Current Utilization of FP methods

8. Do you have any child (ren) of your own? 1. Yes 2.No
9. If yes, how many……

10. Do you have child (ren) with your current sexual partner? 1. Yes 2.No
11. If yes, how many……
12. Are you currently doing anything to delay or avoid pregnancy? 1. Yes 2.No
13. If yes, what FP method are you utilizing?
    1. Modern Contraceptives (specify)……...
    2. Traditional methods (specify)……..……..
14. What is the primary reason for condom use? 1. FP 2.Prevention of STIs *(applies if participant uses condoms)*
15. Do you use condoms consistently? *(for every sexual act)* 1.Yes 2.No
16. Do you desire to have child (ren) in future? 1.Yes 2.No
17. Do you desire to use FP to avoid child (ren) in future? 1.Yes 2.No

Sub section C: Community/patient factors

18. Does HIV/AIDS affect your utilization of FP services? 1.Yes 2.No
19. Explain your response above…….
20. Do you openly share FP use with your sexual partner? 1.Yes 2.No
21. Does your spouse influence you in utilizing of FP services? 1. Yes 2. No
22. Would peers influence your use of FP services? 1.Yes 2.No
23. Does faith (religion) influence your use of FP services? 1. Yes 2. No
24. Does culture influence your use of FP services? 1.Yes 2.No
25. In what ways do the following influence your use of FP methods
    a) Spouse……..
    b) Peers…….
    c) Faith…….

d) Culture……..

26. Assess the knowledge/awareness about use of FP methods *(Participant can mention an example or describe use of at least one FP method correctly)*

    1. Knows 2.Doesn't know 3. Others (Specify)……

Sub section D: Services delivery factors

27. Do you have access to FP methods whenever you need them? 1. Yes 2. No
28. What is the source of your FP methods? 1. TASO 2. Non TASO source e.g. Health unit
29. Do you receive counseling for FP as part of the counseling that you receive in TASO?

    1. Yes 2.No

30. Does TASO meet your needs for FP? 1. Yes 2.No
31. Are you currently taking antiretroviral therapy medicine? 1. Yes 2.No
32. Does ART & PMTCT affect your pregnancy desires? 1. Yes 2.No
33. Do you have any concerns about side effects of FP methods that could influence your choice of method? 1. Yes 2.No
34. Please mention any such concerns…….
35. Please mention any other concerns that may influence your use of FP services ……..……
36. Suggest ways in which utilization of FP services among PLWHA may be improved
    a) In TASO…….
    b) Other FP providers…….

THANK YOU ONCE AGAIN FOR YOUR RESPONSES

APPENDIX III: INTERVIEW QUESTIONNAIRE IN LUSAMIA

EHOSESA YETEKEHA YA FAMILY PLANNING MUBAANDU BAMENYERE NAHABUHA HA SILIMU MUSITONGOLE SYA TASO E' TORORO

Osabibwa ohwewayo ohuba mumusomo kuno kuhuubolere akulu. Nokanyire ohubamu mumusomo wicha ohutebebwa ebiteebo bihudiraho, ebidira huhabuha no bulwaye bwa silimu nende ebidirana hubandu bahuliranire. Ebiteebo bino bicha ohuyira aambi edakika amahumi kadatu ohumala. Hwicha ohunyonyola ebiteebo byosi byosi otegere, nehandi bulisihulomalome sicha ohudonga musyama. Byotubolere bicha ohuhonya TASO nende ebitongole bindi bihonya abandu bali nahabuha oba obulwaye bwa silimu ohubaweresa etekeha ya family planning mungeri ndayi eyihiraho

Enamba yo musomi…… Endaalo kyomwosi **…../ ……/ ……..** (dd/mm/yyyy)

Erita lyomuteebi wo musomo…….

Sub section A: Respondent characteristics

1. Esifo syofuniramu obuhonyi mu TASO
   1. Hu TASO Centre 2.Elumino 3.Ebusia 4.Ebugiri 5.Emulanda
2. Oli muhasi oba oli musacha? 1.Muhasi 2.Musacha
1. Emyaka chawo……
2. Endehesanya yawo
   1. Never Married 2.Married 3.Divorced/Separated 4.Widowed
3. Esikanda siwakamamu
   1. Habane 2.Primary 3.Secondary 4. Tertiary 5.Post tertiary
4. Efukirira oba Edini yawo
   1. Catholic 2.Protestant 3.Moslem 4.Born Again 5.Other *(Specify)*……...
7. Yiwamenya 1. Urban 2. Peri-Urban. 3. Rural

Sub section B: Current Utilization of FP methods

8. Oliho nomwana(abaana) abawo hubwawo? 1. Yee 2.Habba

9. Nikali bwe yee, bali banga? ……
10. Oliho nomwana(abaana) nende owasyo yi mwegata naye? 1. Yee 2.Haba
11. Nikali bwe yee, bali banga?……
12. Oli huhosesa ya family planning yosi yosi (enjaha oba echefwe chihubere nihuhosesanga) eyihukayira obutafuna enda? 1. Yee 2.Haba
13. Nikali bwe yiriyo, eyiri yeena yohosesa?
    1. Enjaaha (chiboole)……...
    2. Echefwe ehaale (chiboole)……..……..
14. Esonga sina eyigendererwa ohuhosesa condomu?1. FP 2.Ohukayira endwaye chohwegata
15. Ohosesaanga condomu buli luwegata nowasyo? 1.Yee 2.Haba
16. Odaha ohubaho Habamwaana (abaana) mubiha bichayo mumoni eyo? 1.Yee 2.Haba
17. Odaha ohuhosesa entekeha ya family planning ohukayira ohwibula mubiha bichayo mumoni eyo? 1.Yee 2.Haba

Sub section C: Community/patient factors

18. Noli nahabuha oba obulwaye bwa silimu sihukayira ohuhosesa entekeha ya family? 1.Yee 2.Haba
19. Lwasina obolere otyo?.....
20. Mulomalomangaho humbosi yidirana nende ehosesa ya family planning nowasyo yimwegatanga naye awula ohutya? 1.Yee 2.Haba
21. Owasyo yimwegatanga naye, yiriwo engeri yosi yosi yahukayira oba yahuwa amani ohuhosesa family planning? 1. Yee 2. Haba
22. Abasyo, koti abeecha bawo, yiriwo enegeri yosi yosi yabahukayira oba bahuwa amani ohuhosesa family planning? 1.Yee 2.Haba

23. Efukirira yawo (ediini), yiriwo enegeri yosi yosi yiyihukayira oba yahuwa amani ohuhosesa family planning? 1. Yee 2. Haba
24. Ebyesiha, yiriwo enegeri yosi yosi yahukayira oba byahuwa amani ohuhosesa family planning? 1.Yee 2.Haba
25. Ngeri siina ngalwobolere hubino?
    a) Owasyo yimwegatanga naye……
    b) Abasyo, koti abeecha bawo …….
    c) Efukirira (ediini)……..
    d) Ebyesiha ……..
26. Tebba obone oba omusomi amanyire ho hutekeha ya family planning yiriwo (omusoomi anyala yanyonyola ehosesa ya family planning ndala bilayi)
    1. Amanyire 2.Samanyire

Sub section D: Services delivery factors

27. Sihwanguwira ohufuna ehosesa cha family planning buli lwodahiire ohuchihosesa?
    1. Yee 2. Haba
28. Ofuniranga yeena entekeha ya family planning yawo? 1. TASO 2. Health unit
29. Ofunanga ohubudabudibwa hubya family planning mu hubudabuda hwo funanga mu sitingole sya TASO? 1. Yee 2.Haba
30. Esitongole sya TASO syoseresa byodaha ebirana nende family planning?
    1. Yee 2.Haba
31. Oluhumira amalesi ka ARV (amalesi ka bahosesa ohujajaba ahabuha ha silimu)?
    1. Yee 2.Haba

32. Amalesi ka ARV, oba ka PMTCT (program yiyamaba abahaye bali neda nahabuha ohwibula abaana batali nahabuha), yiriwo engeri yosi yosi yikahukayira oba kahukalusamu amani ohuhosesa family planning?

    1. Yee 2.Haba

33. Oliho nende ebibaso byosi byosi hubilayi oba hububi hubindu bidirana nende ehosesa ya family planning 1. Yee 2.Haba

34. Husaba obiboole……..……...……

35. Boola byosi byosi ebinyala ohukayira oba ohukalusamu amani muhosesa ya family planning ……...……..

36. Yiriwo engeri yosi yiwaha tubolera yihwahahosesa ohweyongera ohuteresa ehosesa ya family planning?

    a) Mu sitongole sya TASO…….

    ……

    ……

    b) Mu bitongole bindi koti ebya gavumenti ebikaba family planning..……

WEBAALE BYOSI BIWUMBOLERE

APPENDIX III: INTERVIEW QUESTIONNAIRE IN ADHOLA

ORO CHANI MA NYWOLI BOTHI JUMA FODI JU REWERE AKA JO NITYE CODI TWOO MA TWILO EE TASO TORORO

Wakwayini ebedi in dwaro ngeyo mu peni wachoo no eele pengin peng mamako kumi, twoo twilo codi pengi ma mako kumi ji mi bedo ngene. Pengime le tero dakika pwero-adeki. Ja pengi le titorin pengi jye, kisigimoro mawe leisa. La dongi paka nyalingiling aka le konyo TASO codi jumani ma ju tiyo codi juma ju ningi twoo twilo ee kilo chani ma mywoli mutire

Namba ma ID pa ngata mudwoko pengi……..Delo mu pengere nyi……

Nyingi ngata ma penjo……...

Sub section A: Respondent characteristics

1. Kama ee nwangiye chani ma nywoli
   1. TASO Centre 2.Lumino 3.Busia 4.Bugiri 5.Mulanda
2. Chwechi ma nya jichwo koso thako 1.Female 2.Male
3. Ooro paja dwonki pengi……
4. Nywomiroki paja dwoki pengi
   1. Never Married 2.Married 3.Divorced/Separated 4.Widowed
7. Kisoma ma malo ma paja dwoki pengi
   1. None 2.Primary 3.Secondary 4. Tertiary 5.Post tertiary
8. Deeni kosa lamiroki
   1. Catholic 2.Protestant 3.Moslem 4.Born Again 5.Other *(Specify)*……...
7. Kabendo/Pencho 1. Urban 2. Peri-Urban. 3. Rural

Sub section B: Current Utilization of FP methods

8. Etye gi nyathi kosa nyithintho 1. Hei 2.Bee
9. Ka yeyi, adi……
10. Entye gi nyathi kosa nyithintho kodi obengo ma samee 1. Hei 2.Bee

11. Ka yeyi, adi……

12. Same ntye ee oro chani ma chano nywoli (ma nyeni kosa ma choni) egengo kosa galo limo eyeyijo? 1. Hei 2.Bee

13. Ka eyi, chani mene ma chana nywoli me oro?

    1. Chano nyoli ma nyeni (specify)……...

    2. Makisi ndelo (specify)……..……..

14. Atonga ango ma ra pena mumeyo ee oro condomu? 1. FP 2.Prevention of STIs

15. Ee oro condomu kosa mupera kisi ki eriwere ngi thano? 1.Hei 2.Bee

16. Ele mento nwango nyathi kosa nyithintho uwange? 1.Hei 2.Bee

17. Egeno oro chani ma nyolo gengo nywoli uwange? 1.Hei 2.Bee

Sub section C: Community/patient factors

18. Twoo twilo gengin oro chani ma chano nywoli moro? 1.Hei 2.Bee

19. Titi dwokii perin no? ……

20. Etera luwo mu ngoye deyerok kum oro chain ma chano nywoli ngi opengo? 1.Hei 2.Bee

21. Opengo perin, ntye ye ngi aromi moro eyi chani ma nywoli meli oro? 1. Hei 2. Bee

22. Wadini njo niteye gi geri moro mu ju miyi ero chani ma nywoli? 1.Hei 2.Bee

23. Ntye geri ma lamiroki kosa deni perini omiyo ero kosa ekiori chani ma nywoli?

    1. Hei 2. Bee

24. Ntye ye geri ma kisidelo kosa thene thene ma padhola omiyine ero kosa eki ori chain ma nywoli eyi? 1.Hei 2.Bee

25. Engeri ango ma kiki penyi me jumi meyine ee-oro chani ma chano nywoli

    a) Opengo perin……..

    b) Wadiine…….……..

c) Lami/Deni……..…...

d) Timi ma nya padhola ……..

26. Ango mi engeyo mamako kumi oro chani ma chano nywoli (Ja dwoki penji nyalo wacho ye ngeri acheli ma go engyo machano nywoli ko gera yutha).

1. Ongeyo 2.Kuya

Sub section D: Services delivery factors

27. Ee nyalo nwango ngeri machano nywoli ee yoto ki emito? 1. Hei 2. Bee

28. Ngeri mene machano nywoli me eroro?1. TASO 2. Health unit

29. Ee ngwago nga wachi ma makerer condi chano nywoli comi wachi me nwango ee kitipa ma TASO? 1. Hei 2.Bee

30. Katipa ma TASO konyine condi gimi meto ma makere kondi chano nywoli? 1.Hei 2.Bee

31. Samee etye mwonyo yeni ma engongo kudin matwo twilo nyayi? 1. Hei 2.Bee

32. Yeni ma twoo twilo kodi yeni ma ngengo okundin mako nyithitho mi nywolo ntye ngi geri mako kumi maro peri limu eyime? 1. Hei 2.Bee

33. Etyengi bwoki moro kosa lworo mamako kumi oro chani machano nywoli mume yo keyeyo chani noo? 1. Hei 2.Bee

34. Aatochi lworoo/bwoki no……..

35. Tochi lworoo mani njee mayalo mumiyo ee yero ngeri chani ma chano nywoli acheli ……...……...……..

36. Wachi ngeri me nyalo medo pero ma chani ma chano nywoli ee gi ma jutye nge twoo twilo.

a) In TASO ……..……..

b) Other FP providers…….

THANK YOU ONCE AGAIN FOR YOUR RESPONSES

APPENDIX IV: INTERVIEW QUESTIONNAIRE IN LUGANDA

ENKONZESA YE NTEGEKA Y'EZADDE MU BALWADDE ABA KAWUKKA AKALETTA SILIMU OBA ABALINA OBULWADDE BWA MUKENENYA

Tukusaba okirize okwetaaba mumusomo gwetwogedde ko. Bwoba okiriza okwetabba mumusomo guno ojakubuzibwa ebibbuzo ebikukwatako, ebikwata ku kawukka akaletta obulwadde bwa mukenenya oba kubulwadde obwa mukenenya nekubaantu abakwetolodde. Ebibuzo bija kutwala edakika ezikunukiriza mwa assatu. Omubuzi we bibuzzo aja kukunyonyola ebibuzo byonna, ate nebilara byona ebigya okwogerwako nawe bigya kusigala nga bya kyamma, era bigya kuyamba ekitongole kya TASO nabalala abakola ku balwadde ba mukenenya okusoboola okuwereza obulungi ebikwata ku ntegeka ye'zadde

E'namba ya nakyewa…… Enaku z'omwezi……..……..

Erinya lyo mubuzi owebibuzo……...

Sub section A: Respondent characteristics

1. Ekiffo kyofuniramu obujanjabi
   1. TASO Centre 2.Lumino 3.Busia 4.Bugiri 5.Mulanda
2. Ekikula 1.Mukazi 2.Musajja
3. Emyaka……
4. Embera ekwatagana ne byobufumbo
   1. Never Married 2.Married 3.Divorced/Separated 4.Widowed
5. Eddala lyomusomo
   1. None 2.Primary 3.Secondary 4. Tertiary 5.Post tertiary
6. Enzikiriza/Diini
   1. Catholic 2.Protestant 3.Moslem 4.Born Again 5.Other *(Specify)*……...
7. Gyobera 1. Urban 2. Peri-Urban. 3. Rural

Sub section B: Current Utilization of FP methods

8. Olina omwaana (abaana) ababbo? 1. Yee 2.Neda

9. Bwoba olina, bali bameka? ……

10. Olina omwaana (abaana) ne muno gwe wegata naye mukisera kinno? 1. Yee 2.Neda

11. Bwoba olina, bali bameka? ……

12. Oli mukiseera kino kunkozesa ya family planning okwetegekera ezadde? 1. Yee 2.Neda

13. Bwoba ogambye nti yee, nkoseza ki gyoliko?

    1. Enkolla ki yekizungu?.....……...

    2. Enkolla ki yekiganda?.....……..……..

14. Kigendererwa ki ekikulu mukukozesa condomu oba akapira?

    1. FP 2.Kuziyissa ndwadde zabukaba

15. Okozesa condomu oba akapira buli lwemweggata? 1.Yee 2.Neda

16. Osubirra okuzalla omwana (abaana) mubanga eligya mumaso? 1.Yee 2.Neda

17. Osubirra okukozesa entegeka ya family planning okuziyisa okuzalla omwana (abaana) mubanga eligya mumaso? 1.Yee 2.Neda

Sub section C: Community/patient factors

18. Akawuka oba obulwadde bwamukenenya bukusikiriza okukozesa family planning?

    1.Yee 2.Neda

19. Nyonyola kyotegeza wagulu? ……

20. Oyogerangako mulwatu ku nkozesa ya family planning ne muno gwe wegatta naye?

    1.Yee 2.Neda

21. Muno gwe wegatta naye akusikiriza okukozesa family planning?

    1. Yee 2. Neda

22. Bbano nga emikwano gyo basobolla okukusikiriza okukozesa family planning?

    1.Yee 2.Neda

23. Enzikiriza/Diini esobolla okukusikiriza okukozesa family planning? 1. Yee 2. Neda

24. Ebyobuwangwa bisobolla okukusikiriza okukozesa family planning? 1.Yee 2.Neda

25. Nyonyola engeri ebintu byetwogedde ko nga bino, bwebisobolla okusikiriza mukonzesa ya family planning?

    a) Omwagallwa wo…… ……

    b) Banno, nga emikwano gyo……

    c) Enzikiriza/Diini……..……

    d) Ebyobuwangwa……..……

26. Buzza omusomi okutegera byamanyi kunkozesa ya family planning (omusomi amanyi yoyo asobolla okukubulirayo obulungi enkozesa newadde emu)

    1. Amanyi 2.Tamanyi

Sub section D: Services delivery factors

27. Osobolla okufuna enkozesa za family planning buli lwo zagalidde?

    1. Yee 2. Neda

28. Ojjangawa byokozesa mu family planning?

    1. TASO 2. Health unit

29. Ofuna okubudabudibwa kwa family planning mukku budabudibwa kwo funa mu kitogole kya TASO?

    1. Yee 2.Neda

30. Ekitongole kya TASO kitikiriza bye wetaga munkozesa ya family planning?

    1. Yee 2.Neda

31. Mu kisera kino okozesa eddagalla elijanjabba akawuka ka mukenenya (ARV)?

1. Yee 2.Neda

32. Enkozesa ye ddagala erijanjaba akawuka ka mukenenya(ARV) nelyo eriziyizza akawuka ka mukenenya obutakwata bbana (PMTCT), esobola okukusikiriza enkozesa ya family planning?

    1. Yee 2.Neda

33. Olina obwelarikirivu bwona ku bikwataganna ne obulungi oba obbubi obuyinza okukusikiriza enkozesa ya family planning?

    1. Yee 2.Neda

34. Kale, bitubulireko

    ……

35. Tubulire ebilara byona ebiyinza okukusikiriza enkozesa ya family planning?

    ……..……..

36. Tuweyo engeri zonna zetusobola okuterezamu enkozesa ya family planning mubantu abalina akawuka no bulwadde bwa mukenenya

    a) Mukitongole kya TASO…….

    ……

    ……

    b) Mubitongole ebilala nge bya gavumenti ebikola ku family planning

    ……

    …….

WEBAALE NYO NATTE EYO BYOYOGEDDE

APPENDIX IV: INTERVIEW QUESTIONNAIRE IN ATESO

ATOSOMANUT LOKA EIPONE LO IJIKITA AUR NEJASI ITUNGA KA AKURUT LOKA EISENY OTOMA TASO TORORO

Elipatai ijo ajaikin toma asisia na aria icamujo ajaikin eponio aingit akiro nu ekamanara keda aijar kon, ekurut lo eiseny ka icie tunga lu osiep kon (ipaper). Ebuni angisieta nuu nepetai adakikan akaisauni (30). Ebuni angichan aitetem kajo nu ekamutosi angiseta keda

bobo akiro kere nu ebeit eesu einer ebeit asalakin nu aiyaya osodi konye angarakin eryonget lo a TASO to provide better FP services. Keda icie ryongeta lu engarakinet itunga lu edekasi adek na eseny asiom ejok

Enamba kon…….. Aparan na angito …../ …../ …….. (dd/mm/yyyy)

Ekiror aingican……

Sub section A: Respondent characteristics

1. Aiboisit na idumanakina jo amukian
   1. TASO Centre 2.Lumino 3.Busia 4.Bugiri 5.Mulanda
2. Aberu kosa esapat 1.Aberu 2.Esapat
3. Ikon ikar……..
4. Ejautene kon toma odukone
   1. Never Married 2.Married 3.Divorced/Separated 4.Widowed
5. Adoketait na asioman
   1. None 2.Primary 3.Secondary 4. Tertiary 5.Post tertiary
6. Edini
   1. Catholic 2.Protestant 3.Moslem 4.Born Again 5.Other *(Specify)*……...
7. Aboisit 1. Urban 2. Peri-Urban. 3. Rural

Sub section B: Current Utilization of FP methods

8. Ijatatar ijo ikoku aria idwe

1. Ebbo 2.Mam

9. Arai ebbo, idi bo……

10. Ijatatar ijo ikoku/ idwe nu iurut ijo ka oupakon/aupakon na kopana 1. Ebbo 2.Mam

11. Arai ebbo, idi bo……

12. Ejai eipone lo ijikita ijo aur kopana? 1. Ebbo 2.Mam

13. Arai ebbo, ali bo itasomai ijo?

1. Ekia na tetet (specify)……...

2. Epone na mojong (specify)……..……..

14. Inyobo apelekinet itosoma ijo amopira nu aelo?

1. FP 2.Prevention of STIs *(applies if participant uses condoms)*

15. Itosomanene ijo amopiran nu aelo nyin pak na ee ielor ijoo? 1.Ebbo 2.Mam

16. Ipuda ijo adumun ikoku aria bo nat idwe rwary, koingeren? 1.Ebbo 2.Mam

17. Ipuda jo aitosom iponesion lu etikitikere aur rwaru koingaren? 1.Ebbo 2.Mam

Sub section C: Community/patient factors

18. Iomit ijo ebe epedori adek na eseny ajaikin eitosomae lo aijikitik aur apagalar?

1.Ebbo 2.Mam

19. Kotalau akon bongokinet……..…

20. Eneranarosi ijo ka lo na owaikon kapatan nu ikamunitosi aijakitik na aur?

1.Ebbo 2.Mam

21. Emina lo/na owaikon abuinikin ijo aitosom iponesio nu aitikitik aur? Ebbo 2. Mam

22. Biaibo epedoret iupeta kon ajaikin ijo aitosom iponesio lu aitikitik aur? Ebbo 2.Mam

23. Epedor edini aitoltol lo etosomane loka aitiktik aur kon? Ebbo 2. Mam

24. Biabo akiro nu einonu ka etosomai lo aigal gal aur? 1.Ebbo 2.Mam

25. Opone ali bo epedotorata a kiro nu okwap nu aitol tol nu ekamuto aijik jik na aur?
    a) Spouse ……
    b) Peers…….
    c) Faith…….
    d) Culture……..
26. Kowany ajenun naka Family planning (Participant can mention one example and describe use of at least one FP method correctly) 1. Ijeni 2.Mam Ijeni

Sub section D: Services delivery factors

27. Epatana ijo adumun iponesio lu tik tiket aur (family planning) idio sawa kere na ipudakinor ijo? 1. Ebbo 2. Mam
28. Aibo idumuna ijo ekon family planning?1. TASO 2. Health unit
29. Biaibo idumununei ijo aisisianakino nu ikamanara ka family planning ne duc ilosenana ijok TASO adumun asinapikino na aomisio? 1. Ebbo 2.Mam
30. Edumunenei ijo nu ikamanara ka efamily planning ko TASO ka ikotor ijo?
    1. Ebbo 2.Mam
31. Igeu ijo ailik ike nu etikitikere ekurut lo eseny? 1. Ebbo 2.Mam
32. Biabo, etolitoli amukian na eseny ka nu aitiktik eikop na ekurut na eseny nee jai imukeru ekon pud na apotu? 1. Ebbo 2.Mam
33. Biabo ejai jo adio ngurian ne ekamananara ka efamily planning okamutosi ayuara ka esimae kech? 1. Ebbo 2.Mam
34. Ko olimo a kon ngurian……
35. Inyobo icie boro akieun ekon put loka efamily planning……
36. Kolimo kinai iso iponesio lu epedoria aikeun eitosomae loka efamily planning ka ne ejasi ngun lu ejaret keda ekurut loka eseny
    a) O' TASO
    ……
    b) Iche ilemajo TASO……..……

IYALAMA KA ABONGOKIN AINGISIO

APPENDIX V: FOCUS GROUP DISCUSSION GUIDE

The purpose of this group discussion is to gain in depth information about FP utilization among PLWHA in this specific community. Your feedback as a PLWHA from this area will help TASO and others in future to develop better FP services so as to improve the quality of life of PLWHA.

SAMPLE QUESTIONS:

1. Mention FP methods you have heard about.
2. What FP methods are being utilized in your community?
3. Comment on the desire for FP methods versus the actual use, and what are some of the reasons to explain the difference?
4. Do HIV+ women and men demand or desire FP services differently from their HIV- counterparts? What explanation do you give?
5. Has the coming of PMTCT, ARV drugs affected fertility desires of PLWHA? What explanation do you give?
6. Do the FP services at your nearby Health unit meet your FP needs? Please explain your response?
7. Do the TASO FP services meet your FP needs? Please explain your response?
8. What additional factors influence utilization of FP methods among PLWHA in your community? At a) Individual b) Community c) Service delivery
9. What FP services would you like to see TASO provide?
10. In what ways should utilization of FP services be improved?

THANK YOU FOR PARTICIPATING IN THE GROUP DISCUSSION!

APPENDIX VI: KEY INFORMANT GUIDE

I am a student at Makerere University School of Public Health and working as a Doctor with TASO, am carrying out a research about utilization of FP services among PLWHA. Your feedback as a person with expertise in this area will be help TASO and others in future to develop better FP services so as to improve the quality of life of PLWHA. I you agree to participate I would like to ask you a few questions in regard to utilization of FP. Feel free to ask any question in relationship to the study

KI GUIDE QUESTIONS

1. What FP services can members of your community get from you as a service provider?
2. Comment on FP services in your community in terms of? a) Availability and need b) Current utilization
3. What challenges are faced by PLWHA towards FP utilization? At a) To an Individual b) Due to community influences c) Related to service delivery and FP methods
4. What are some of the key hindrances to effective FP service delivery in your community?
5. What suggestions would you give towards strengthening utilization of FP services among PLWHA in your community?

THANK YOU FOR YOUR RESPONSES

APPENDIX VII: MAP OF STUDY AREA