PREVALENCE AND FACTORS ASSOCIATED WITH DISCLOSURE OF HIV SEROSTATUS TO SEXUAL PARTNERS AMONG HIV POSITIVE BREASTFEEDING WOMEN ATTENDING eMTCT CLINICS IN JINJA DISTRICT, UGANDA

BY

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2017
Prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district

DECLARATION
I hereby declare that this dissertation has solely been prepared by myself and it has not been presented anywhere by anyone either partially or in total for any academic award, publication or other use. The works herein are original, where the works of others are quoted, appropriate references have been given. I therefore wish to present it for examination and for the award of the degree of Master of Public Health of Makerere University.

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Prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district

DEDICATION

This dissertation is dedicated to my parents Jotham Tukahaabwa and Alice Tukahabwa, who through hardship raised me and educated me.

To my wife, Ms. Winfred Mpeirwe for all the encouragement, support and love she provided me during the course. To my children, Ankwasa Alicia and Ashaba Aaliyah for the company, love and care they could have missed during the course of the studies. Am indebted to them forever. God bless them abundantly.
Prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district

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List of Abbreviations

ANC  Antenatal Care
ART  Antiretroviral Therapy
BHC  Bugembe HC
COHRE  The Clinical Operational HIV/AIDS/ TB Research program
DE  Distance Education
eMTCT  Elimination of Mother to Child transmission of HIV
FGD  Focus Group Discussion
HC  Health Centre
IDI  In-depth interviews
JCRC  Joint Clinical Research Centre
JRRH  Jinja Regional Referral Hospital
MCH  Maternal and Child Health
MTCT  Mother to child transmission of HIV
P I  Principal Investigator
PLWHA  People living with HIV/AIDS
PMTCT  Prevention of Mother to child transmission of HIV
RA  Research Assistant
WHO  World Health Organization
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List of Definitions

Disclosure: Sharing the results of HIV test with the sexual partner

eMTCT/OPTION B+: New WHO ART service delivery model that targets HIV positive pregnant and breastfeeding women and their babies through pregnancy, delivery and postnatal period up to 18 months

Mother-baby care point: Site designated in the MCH department to provide antiretroviral therapy to the mother and baby 6 up to weeks Postnatal

Sexual partner: The father of the current baby/ one current sexual partner

Prevalence of disclosure of HIV positive status: The proportion of HIV positive breastfeeding women attending eMTCT clinics that have ever shared their HIV positive test results with their sexual partners

Single: HIV positive breastfeeding woman who was not with any current sexual partner but was in contact with the father of the child.

Separated/divorced: HIV positive breastfeeding woman who was temporarily or permanently separated respectively with the father of the child but had a current sexual partner
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Abstract

Introduction

There is a low proportion of HIV positive individuals who disclose their HIV positive status to their sexual partners globally ranging between 16.7 - 46%. This results into poor adherence and poor appointments keeping, ART treatment failure with subsequent increased morbidity and mortality among HIV positive breastfeeding women and their HIV exposed babies. This would undermine the global goal of zero new HIV infections. This study sought to determine the prevalence and factors associated with disclosure of HIV status to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district.

Methodology

This was a cross sectional mixed method study carried out among HIV positive breastfeeding women attending eMTCT clinics in Jinja district. A total of 426 HIV positive breastfeeding women aged >18 years attending eMTCT clinics were selected using simple random sampling and interviewed using interviewer administered questionnaire. eMTCT registers were used to select participants every clinic day. Filled questionnaires were checked for accuracy, consistency and completeness by PI before they were data entered into Epidata version 2.1b, with data checks and validations to ensure accuracy during entry. Statistical packages STATA version 12 was used to analyse quantitative data while qualitative data analysis was done using NVivo version 10.

Results

A total of 426 HIV positive breastfeeding women were interviewed. Fifty Five percent of the HIV positive breastfeeding women reported ever disclosing their HIV status to their sexual partners. Being born again (AOR=0.38, 95% CI:0.17,0.85, p=0.019), being single (AOR=0.07,95% CI:0.02,0.23,p <0.001) having separated/divorced from the sexual partner (AOR=0.21,95% CI:0.09,0.50,p <0.001) were associated with a less likelihood of disclosure of HIV serostatus to their sexual partners. Having someone in the community disclosing their HIV status to the HIV positive breastfeeding woman (AOR=1.84, 95% CI: 1.06, 3.22, p=0.031), the
participant having disclosed to one of the family members (AOR=2.86, 95% CI: 1.61, 5.07, \( p<0.001 \)) and using any family planning method (AOR=1.96, 95% CI: 1.13, 3.39, \( p=0.016 \)) were associated with high likelihood of disclosure of HIV status to the sexual partners, while having challenges/fears disclosing the HIV status (AOR=0.09, 95% CI: 0.05,0.17,\( p<0.001 \)) and self-stigma (AOR=0.31,95% CI: 0.14,0.69, \( p = 0.004 \)) were associated with less likelihood of disclosure of HIV status to the sexual partners. The qualitative research findings showed that fears in their relationships greatly prevented HIV positive breastfeeding women from disclosing their HIV status.

**Conclusion**

About a half of the HIV+ breastfeeding women had ever disclosed their HIV serostatus to their sexual partners. Being born again, single, having separated/divorced from the sexual partner were associated with a less likelihood of disclosure of HIV serostatus to their sexual partners. Results from qualitative research showed that the fears in their relationships prevented the HIV positive breastfeeding women from disclosing their HIV status to the sexual partners. Prior experiences of disclosure of HIV serostatus, family support and being on any family planning increased the likelihood of disclosure of the HIV status to the sexual partner. Qualitative research findings indicated that the need to uplift the welfare of their children encouraged them to disclose their HIV status to their partners.

**Recommendations:**

Focused counselling ought to be given to the born again christians, single, separated/divorced and those with any fears and self-stigma to ensure behaviour change among these persons. HIV positive persons in the community should be encouraged to talk freely about their HIV serostatus by inviting them to talk at community gatherings like churches. Health education efforts should be directed towards maintaining a good family support as well as encouraging family planning among HIV positive breastfeeding women.
1.0 Introduction

Disclosure of HIV status to sexual partners among HIV positive pregnant women has been found to support risk reduction and facilitate access to prevention and care services for people living with HIV/AIDS (King, Katuntu et al. 2008). Without disclosure of HIV status, there is limited support from the sexual partner about their sexual and reproductive health challenges (Shikwane, Villar-Loubet et al. 2013). Some studies in developing countries have reported the prevalence of disclosure of HIV status to range from 16.7 to 46% among HIV positive pregnant women (Kiula, Damian et al. 2013). This is consistent with 41% disclosure of HIV serostatus to sexual partners among HIV positive pregnant women visiting the ANC centres in Morogoro Municipality, south eastern Tanzania (Kiula, Damian et al. 2013). A study carried out among HIV positive pregnant women in Dar es salaam, Tanzania reported the disclosure of HIV status to be 22 to 40% (Antelman et al 2000). The low proportion of HIV positive pregnant women disclosing their HIV serostatus to their sexual partners reported among women in antenatal clinics has several implications for prevention of mother-to-child transmission of HIV (PMTCT) programmes including poor appointment schedule keeping, poor adherence to antiretroviral therapy and high risk of HIV transmission to the unborn baby. The optimal uptake and adherence to such programmes is difficult for women whose sexual partners are either unaware or not supportive of their participation in these programmes (King, Katuntu et al. 2008). Disclosure of HIV status to sexual partners is aimed at ensuring men’s support for adhering to scheduled review
appointments and the lifelong ART care especially for the HIV positive breastfeeding women on option B+ regimens.

The factors that affected disclosure of HIV status among PLWHAs included; accusation of infidelity, fear of abandonment and discrimination by their sexual partners (Medley, Garcia-Moreno et al. 2004). Olagbuji et al (2011) found that being nulliparous and unmarried, fear of spread of information, stigmatization and deterioration of the relationship were associated with non-disclosure of HIV serostatus to partners among pregnant women (Olagbuji, Ezeanochie et al. 2011). However, he also found out that reasons which facilitated the disclosure of HIV status to sexual partners are; knowing other people in the community who have publicly disclosed their HIV serostatus and having a higher self-esteem, need for financial and social support from partners (Olagbuji, Ezeanochie et al. 2011). The above studies showed evidence of research on disclosure in HIV pregnant women and women attending ART clinics but the prevalence and factors associated with disclosure of HIV status to sexual partners among HIV positive breastfeeding women attending HIV lifelong treatment programs (eMTCT) were not studied in Jinja.

Uganda has devised HIV prevention strategies summarized in the four prongs to reduce MTCT of HIV.

**Prong 1:** Prevention of HIV infection among potential parents using ABC+ Circumcision (Safe male circumcision)
Prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district

**Prong 2:** Avoiding unwanted pregnancies among HIV positive women by providing appropriate counselling and support to HIV positive women to make informed decisions about their reproductive lives.

**Prong 3:** Preventing the transmission of HIV from their HIV positive women to their babies through pregnancy, labour and breastfeeding.

**Prong 4:** Integration of HIV care, treatment and support services for women found to be HIV positive and their families by advocating for positive prevention measures among concordant and discordant couples by use of a condom and circumcision as well as mutual support for the couples.

Disclosure is important in each of the prongs as it ensures risk reduction and facilitates positive behaviour change. However, little has been done to support disclosure of HIV status among HIV positive breastfeeding women in Uganda for a successful eMTCT programme. This is evidenced by the non-appointment of trained counsellors by the public service commission at the health facilities as it does not have psychosocial workers in its government staff structures.

In the eMTCT programme, the WHO ART guidelines (WHO, 2013) recommend that an HIV positive breastfeeding woman breastfeeds up to one year only as compared to other HIV negative breastfeeding women. This shortened duration of breastfeeding among HIV positive women can raise questions from the community and the sexual partner. This affects disclosure of HIV status among these HIV positive breastfeeding women to their sexual partners. The prevalence and factors associated with disclosure of HIV serostatus to sexual partners among main stream ART clinic clients and pregnant women attending ANC clinics were widely researched but the prevalence and factors associated with disclosure of HIV status to sexual partners among HIV
Prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district

positive breastfeeding women attending HIV lifelong treatment programs (eMTCT) are not studied in Jinja. This study sought to determine the prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja.
CHAPTER TWO

Literature Review

2.0 Literature review

This chapter draws on evidence available on HIV positive women disclosure of their HIV status to the sexual partner in other country settings especially at the same level of socio-economic development as Uganda.

2.1 Demographic factors

Evidence shows that HIV positive pregnant women who live in urban areas, with higher education level, married or in a relationship disclosed their HIV status more to their sexual partners than HIV positive pregnant women who resided in rural and attained lower education. These HIV positive pregnant women had access to mass media like televisions, radios and newspapers that enabled them to make informed decisions to disclose their HIV status (Roxby, Matemo et al. 2013). Across sectional study done in Morogoro Municipality in south eastern Tanzania in 2013 among HIV positive pregnant women visiting the ANC centres showed that being less than 25 years old was associated with increased disclosure of HIV status to their sexual partners (Kiula, Damian et al. 2013). The older HIV positive women attending perinatal clinics in Thailand in 2012, were more likely to disclose their HIV status to their sexual partners than the younger HIV positive women (Ross, Stidham et al. 2012).
2.2 Social factors

The social environment in which an HIV positive woman lives plays a significant role in facilitating or inhibiting disclosure of her HIV status. A study carried out among HIV positive pregnant women in Ethiopia showed that disclosure of HIV status to their sexual partner was enhanced by knowing people who have revealed their status and openly talking about their HIV status (Alemayehu, Aregay et al. 2014). Family support is a fundamental social support mechanism in determining whether or not an HIV positive woman discloses her HIV status to the sexual partner (Kalichman, DiMarco et al. 2003). According to a study among HIV positive perinatal women in Thailand, disclosure of HIV status is more common in women with higher family support, free from discrimination and stigma (Ross, Stidham et al. 2012). Also if the HIV positive woman believed in maintaining the integrity of the relationship, she was found to disclose her HIV status to her sexual partner (Hardon, Gomez et al. 2013). A study conducted among HIV positive women in Mettu South Western Ethiopia showed that use of condoms was associated with disclosure of HIV status to their sexual partners (Kassaye, Lingerh et al. 2005) whereas Alemayehu et al (2014) indicated that having discussion prior to HIV testing with the sexual partner would facilitate disclosure of her HIV status to the partner. Discussions prior to HIV testing emphasized the importance of good communication among couples for the HIV positive woman to disclose her HIV status to the sexual partner (Alemayehu, Aregay et al. 2014).

Barriers to disclosure of HIV status to sexual partners include; fear revealing ones HIV status in the community, stigmatization, and deterioration in the relationship with the spouse. A study by Olagbuji et al (2011) found that fear of revealing one’s HIV status in the community prevented HIV positive women from disclosing their HIV status to their sexual partners.
Because men usually provide for the women financially, disclosure of HIV status to the sexual partner always brings issues of vulnerability and fear of violence as well as abandonment in situations where the sexual partner does not accept the HIV positive status of the woman. Fear of stigmatization greatly discourages HIV positive women from disclosing their HIV status to their sexual partners (Roxby, Matemo et al. 2013). A systematic review of seventeen studies showed that barriers to disclosure of HIV status were; fear of accusations of infidelity, abandonment, discrimination and violence (Medley, Garcia-Moreno et al. 2004),

A qualitative study carried out among HIV positive pregnant women in Mbale Regional Referral Hospital in 2012 revealed the reasons for non-disclosure as; fear of abandonment, violence and accusation of bringing HIV infection into the family, losing support to her children, divorce and the husband marrying another woman (Rujumba, Neema et al. 2012).

2.3 Economic factors

A study carried out among HIV positive pregnant women in Enugu, Nigeria showed that economic and financial needs from the sexual partner increased their likelihood of disclosure of HIV status to their sexual partners (Ezeqwui k2Hu, Nwoqu-Ikojo E. E et al. 2007). However, another study revealed that dependency on the sexual partner for food/rent/fees for children among HIV positive breastfeeding women was associated with decreased HIV status disclosure to their sexual partner (Kiula, Damian et al. 2013). HIV positive women’s employment status encouraged them to disclose their HIV status to their sexual partners (Ross, Stidham et al. 2012).
2.4 Health service factors

Available evidence shows that users and health service delivery factors play a significant role in determining whether or not HIV positive women disclose their HIV status to their sexual partners (Govindasamy, Ford et al. 2012). A cross sectional study done among HIV positive women in Zimbabwe indicated that being on ART and being symptomatic at baseline were associated with disclosure of HIV status to their sexual partners (Patel, Ratner et al. 2012). Late diagnosis of HIV infection in pregnancy was associated with less likelihood of disclosing the HIV status to sexual partners (Patel, Ratner et al. 2012). A study done among HIV positive pregnant women in Ethiopia showed that HIV disclosure to their sexual partners was associated with receiving pre-test counselling (Alemayehu, Aregay et al. 2014).
CHAPTER THREE

Problem Statement, Justification, Conceptual Framework, Research Questions and Objectives of the Study

3.1 Problem statement

The enrolment into eMTCT programme of the HIV positive pregnant was 72% among ANC women (Jinja 2014/15 report). The HIV positivity rates among HIV exposed infants was 8% which was much higher than the national target of less than 5%, while as their enrolment into HIV care was very low at 38%. (Jinja Annual 2014/15 report). This dismal programme indicator performance negatively impacts on MTCT of HIV consequently increasing Morbidity and mortality among HIV exposed infants and HIV positive breastfeeding women. Not knowing the magnitude and factors associated with disclosure among HIV positive breastfeeding women presents a missed opportunity for development of support programs for them and their HIV exposed babies to reduce the transmission of HIV. Most studies have been carried out on prevalence and factors associated with disclosure of HIV serostatus among HIV positive women attending ART clinic and HIV positive pregnant women attending ANC clinics in general but the prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending life-long treatment programmes (eMTCT) was not taken into consideration. This study sought to assess the prevalence and factors associated with HIV serostatus disclosure to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district.
3.2 Justification

To have zero HIV new infections a concept that is fronted by eMTCT guidelines, HIV positive breastfeeding women ought to get full support from their sexual partners, who need to have disclosed their HIV serostatus to them. Not knowing the magnitude and factors associated with disclosure among HIV positive breastfeeding women presents a missed opportunity for development of support programs for them and their HIV exposed babies to reduce the transmission of HIV. These include psychosocial and livelihood support programmes that improve adherence to ART regimens and appointment schedule keeping without which elimination of mother to child transmission of HIV to HIV exposed infants remains a dream to be attained. This also forms a basis for further research by future scholars. This study sought to determine the prevalence and factors associated with disclosure of HIV serostatus to sexual partners among breastfeeding women attending eMTCT clinics in Jinja district. The results of this research will enable the facility managers, the district health team and the Ministry of Health to emphasize the importance of disclosure of HIV serostatus to their sexual partners among HIV positive breastfeeding women for effective and sustainable eMTCT programmes in Jinja and Uganda at large.
Prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district

3.3 Conceptual framework for factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT Clinics in Jinja District

- **SOCIAL FACTORS**
  - safeguarding relationship integrity, knowing people disclosing, family support, use of condoms in relationship, discussion prior to HIV testing, fears: stigma, spread of information, deterioration of relations, violence, abandonment, loss of economic support, infidelity labelling, discrimination

- **DEMOGRAPHIC FACTORS**
  - Urban settlement, education status, marital status, religion, age of mother

- **HEALTH SERVICE FACTORS**
  - ART initiation, being symptomatic at baseline, receiving pre-test counselling, longer time since HIV testing, HIV testing later in pregnancy

- **ECONOMIC FACTORS**
  - Economic/financial needs, employment status, dependence for food/rent/fees for children

- **DISCLOSURE OF HIV STATUS**

- High risk of MTCT of HIV >>>>> high Morbidity and Mortality in HIV exposed infants/ mothers
Prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district

The conceptual framework shows the interaction between the demographic, social, economic, and health service factors in influencing disclosure of HIV status to the sexual partners.

These factors are interlinked and influence each other in a complex manner. For example level of education of the women bears implications for information access and socio-economic empowerment and ability to make informed decisions. Health service delivery factors influence availability, accessibility and utilisation of health services. They must be responsive to client needs if they are to achieve the interventions set objectives.

3.4 Research Questions

1. What proportion of HIV positive breastfeeding women attending eMTCT clinics disclose their HIV status to their sexual partners in Jinja district?

2. What are the demographic factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district?

3. What are the social factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district?

4. What are the economic factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district?

5. What are the health service factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district?
3.5 Study Objectives

3.5.1 General objective

To determine the prevalence and factors associated with disclosure of HIV status to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district between the months of April to June 2015 for effective and sustainable eMTCT services.

3.5.2 Specific objectives

1. To determine the proportion of HIV positive breastfeeding women attending eMTCT clinics who disclose their HIV status to their sexual partners between the months of April to June 2015 in Jinja district.

2. To determine the demographic factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics between the months of April to June 2015 in Jinja district.

3. To determine the social factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics between the months of April to June 2015 in Jinja district.

4. To determine the economic factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics between the months of April to June 2015 in Jinja district.
Prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district

5. To determine the health service factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics between the months of April to June 2015 in Jinja district.
CHAPTER FOUR

Methodology

4.1 Study Area

The study was carried out in Jinja district which is located in the South Eastern part of Uganda at the shores of Lake Victoria about 80 kilometres (Km) from Uganda’s capital city, Kampala. Jinja district is bordered by Kamuli district to the north, Luuka district to the east, Mayuge district to the southeast, Buvuma district to the south, Buikwe district to the west and Kayunga district to the northwest. The district is subdivided into 3 counties namely, Butembe, Kagoma and Jinja Municipality. There are 11 Sub-Counties; 46 Parishes and 381 villages. In Jinja district, maternal health care services especially ANC, delivery and postnatal care services are available from health center two to Regional Referral Hospital. This study was carried out in Jinja Regional Referral Hospital and Bugembe Health Centre IV with cumulative numbers of 450 and 300 HIV positive breastfeeding women enrolled in eMTCT clinics respectively. These 2 facilities were selected purposively owing to the big number of HIV positive breastfeeding women because the rest of the facilities had limited enrolled numbers of HIV positive breastfeeding women to achieve the study’s sample size. The district was supported by The AIDS Support Organisation (TASO) as an Implementing Partner that facilitated them with linkage facilitators to provide psychosocial support to HIV positive breastfeeding women attending eMTCT clinics. These linkage facilitators are expert clients who had done extensive volunteering work with the facilities and had shown passion for caring for the clients.
4.2 Study population

The target study population was HIV positive breastfeeding women attending eMTCT clinics at Jinja Regional Referral Hospital and Bugembe Health Centre IV. Jinja Regional Referral Hospital and Bugembe Health Centre IV attend to approximately a cumulative number of 450 and 300 HIV positive breastfeeding women in their eMTCT clinics respectively.

4.2.1 Inclusion criteria

HIV positive breastfeeding women attending eMTCT clinics at Jinja Regional Referral Hospital and Bugembe Health Centre IV who gave informed consent to participate in the study were included in the study.

4.2.2 Exclusion criteria

HIV positive breastfeeding women younger than 18 years, too sick to give an informed consent, who declined to give informed consent were excluded from taking part in the study. Younger HIV positive breastfeeding women’s inability to give written informed consent prevented this study to enrol them.

4.3 Study design

This was a cross sectional mixed method study that used quantitative and qualitative research methods to explore the prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT programmes. Quantitative research methods included use of interviewer administered questionnaire. Qualitative research methods included three focus group discussions with HIV positive women who disclosed their HIV status to their sexual partners and In-depth interviews were conducted
Prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district

using an In-depth interview guide to HIV positive breastfeeding women who did not disclose their HIV status to their sexual partners.

4.4 Sample size determination

Kish Leslie formula was used for sample size determination.

The formula is \( n = \left(\frac{Z^2PQ}{d^2}\right) \)

Where;

- \( n \) = Sample size.
- \( z \) = The standard normal value corresponding to the 95% confidence level; \( z = 1.96 \).
- \( p \) = The proportion of HIV positive breastfeeding women disclosing their serostatus. Since there was no prior study done in Jinja district, it was set at 50%
- \( q \) = The proportion of HIV positive breastfeeding women who were not disclosing their HIV status = \( 1 - p \), this was estimated as 50%
- \( d \) = The precision (acceptable degree of error), It was assumed to be 5%

\[
n = \frac{1.96^2 \times 0.5 \times 0.5}{0.05^2} = 384
\]

The sample size was 384 participants.

After assuming a 10% non-response rate, then the sample size would be

\[
n/0.9 = 384/0.9 = 426
\]
All 426 participants responded to the interviewer administered questionnaires.

### 4.5 Sampling procedure

Participants were selected using simple random sampling; 256 participants were proportionately selected from Jinja Regional Referral Hospital and 170 participants from Bugembe Health Centre IV as shown below:

Jinja Regional Referral Hospital = \( \frac{450}{750} \times 426 = 256 \) participants

Bugembe HC IV = \( \frac{300}{750} \times 426 = 170 \) = 170 participants

On average Jinja Regional Referral Hospital receives 25 HIV positive breastfeeding women daily five days a week while Bugembe Health Centre receives 35 HIV positive breastfeeding women in an eMTCT clinic running 2 days a week (Tuesdays and Thursdays). A daily attendance eMTCT register was used to pick the numbers randomly selected in each of the two facilities for participants to be interviewed on each day. Thirty Five (Twice a week) and 25 (daily) participants were selected from Bugembe HC IV and Jinja Regional Referral Hospital respectively by allocating them numbers from 1-\( N \)th number, where \( N \) would be the total number of HIV positive breastfeeding women attending the clinic that very day. The numbers would be picked from a box without replacement until the required number of participants is attained for that day.
4.6 Study variables

4.6.1 Dependent variable

The outcome was the proportion of HIV positive breastfeeding women who reported disclosing their HIV serostatus to sexual partners among HIV positive women enrolled in Jinja Regional Referral Hospital and Bugembe HC IV eMTCT clinics.

4.6.2 Independent variables

The determinants of disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending Jinja Regional Referral Hospital and Bugembe HC IV eMTCT clinics included demographic, social, economic and health service variables.

1. Demographic variables included: demographic characteristics like age, education level, religion, tribe, marital status and residence.
2. Social variables included safeguarding relationship integrity, knowing people disclosing in the community, family support, use of condoms in relationship, discussion prior to HIV testing, fears, self-stigma.
3. Economic variables included need for economic/financial needs, employment status of the participant, dependency on sexual partner for food/rent/fees for children
4. Health service variables included ART initiation, being symptomatic at baseline, receiving pretest counseling, time duration since HIV testing, HIV testing later in pregnancy.

4.7 Data collection methods

Quantitative data was collected using interviewer administered questionnaire and qualitative data were collected using FGDs guides and In-depth interview guides.
4.7.1 Quantitative methods
The structured questionnaires were developed by the principal investigator, pre-tested at Budondo HC IV eMTCT clinic where the study did not take place because the socioeconomic characteristics of HIV positive breastfeeding women at Budondo HC IV and study sites are similar. Pretesting was done to strengthen the data collection tool. Research assistants were trained for one day on how to seek written informed consent from the eligible participants and administered the questionnaire that was structured to capture the objectives of the study.

4.7.2 Qualitative methods
Qualitative research methods included Focus Group Discussions and in-depth Interviews where participants were selected basing on whether or not they have disclosed in the interviewer administered questionnaire. Three focus group discussions with HIV positive women who disclosed their HIV status to their sexual partners in groups of six from 3 different socioeconomic backgrounds; housewives, businesswomen and formally employed women were interviewed using an FGD guide. Three in-depth interviews were conducted using an in-depth interview guide to 3 HIV positive breastfeeding women who did not disclose their HIV status to their sexual partners until a saturation of ideas was realised with regard to the objectives of the study.

4.8 Quality control
4.8.1 Identification of the research assistants
The research assistants were 2 registered midwives, 2 enrolled midwives and 2 counsellors (linkage facilitators). These had a good understanding of the indigenous language (Lusoga). They were also fully involved in the daily activities of the clinics. This ensured confidentiality of the
participants and since they were used to each other, it resulted into a good rapport with the participants and hence a good response rate.

4.8.2 Training of the research assistants

Research assistants were trained on how to administer the questionnaire for one day with emphasis on the purpose of the study, procedures of the interview, benefits and any risks.

4.8.3 Pre-testing

The principal investigator and the trained research assistants pre-tested 10% of the study respondents (43 interviews) in Budondo Health centre IV eMTCT clinic where the actual research did not take place. Pretesting was done in Budondo HC IV because socioeconomic characteristics of HIV positive breastfeeding women in Budondo HC IV were similar to those attending Jinja Regional Referral Hospital and Bugembe Health Centre IV. Adjustments to the questionnaire were made based on the pre-test results.

4.9 Data management and analysis

4.9.1 Data management

Filled questionnaires were checked for accuracy, consistency and completeness by the principal investigator before data entry. Data entry screen was designed using Epidata version 2.1b with data checks and validations implemented to ensure accuracy during entry. Statistical package STATA version 12 (Stata Corporation, College Station, Texas, USA) was used for data analysis.

4.9.2 Data analysis

Data analysis was done using quantitative and qualitative data analysis methods as shown in subsections 4.9.2.1 and 4.9.2.2
4.9.2.1 Quantitative data analysis

Univariable analysis was done to generate frequencies, means and proportions. Bivariable analysis was done using a simple logistic regression to test for associations between dependent and independent variables using odds ratios, 95% confidence intervals and p-values as measures of statistical significance. Multivariable analysis was done using multiple logistic regression to assess the independent effect of the variables. First, all variables with bivariable p-values less than 0.2 were subjected to a multiple logistic regression and model building done using a likelihood ratio test until a parsimonious model was obtained. Collinearity analysis was also performed checking for associations between independent categorical variables. For two variables that were collinear, the one giving a better fit was retained into the model. Finally, goodness of fit test was done supporting a good fit for the final model with p=0.205.

4.9.2.2 Qualitative data analysis

Qualitative data was coded and analyzed deductively. Data was managed using NVivo version10 software. The Principle Investigator (PI) read the transcripts to become familiar with the data and identified meaningful analytical segments which were marked with code names formulating the codebook to facilitate analysis. Initially broad pre-defined codes were developed based on the topics covered in the in-depth interview and focus group discussion guides, and emerging themes in the transcripts. The coded data were then reviewed and fine codes were developed based on the initial reports generated from the broad coding. The broad themes were then recoded using the fine codes to further categorize the data. These were then used to produce a detailed analytical report, which examined key themes and findings that included illustrative quotations from the database.
4.9.2.3 Ethical considerations

The study was approved by Makerere University Higher Degrees Research and Ethics. Permission was also sought from the District Health Officer and the heads of the two facilities; Jinja Regional Referral Hospital and Bugembe Health Centre IV. Written informed consent was sought from the participants after thorough information was given to them regarding the purpose of the study, procedures of the interview, benefits and any risks. Anonymous questionnaires were used with utmost confidentiality. No photos were taken. The participants were informed of the freedom to exit the study if they felt to do so. No one was punished or penalized for non-participation in the study to ensure voluntariness of participation. Participants were not entitled to any financial assistance.

4.9.2.4 Dissemination plan

The study findings comprehensive report shall be shared with the Ministry of Health, School of Public Health, School of Graduate studies Makerere University, COHRE Project Joint Clinical Research Centre, Jinja district Health team, Jinja Regional referral hospital, Bugembe HC IV as well as Budondo HC IV.
Prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district

CHAPTER FIVE

Results

5.1 Demographic characteristics of the participants

A total of 426 participants were interviewed. The participants’ characteristics by age, residence, tribe, religion, marital status and education levels are presented in Table 1.

Table 1: Demographic characteristics of the study participants attending eMTCT clinics in Jinja district, Uganda

(N=426)

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Age in completed years, mean (SD)</td>
<td>28.60 (5.09)</td>
<td></td>
</tr>
<tr>
<td>&lt;25</td>
<td>92 (21.60)</td>
<td></td>
</tr>
<tr>
<td>25 – 29</td>
<td>161 (37.79)</td>
<td></td>
</tr>
<tr>
<td>30 – 34</td>
<td>118 (27.70)</td>
<td></td>
</tr>
<tr>
<td>35 – 39</td>
<td>36 (8.45)</td>
<td></td>
</tr>
<tr>
<td>≥40</td>
<td>19 (4.46)</td>
<td></td>
</tr>
<tr>
<td>Residence, n (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>210 (49.30)</td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>216 (50.70)</td>
<td></td>
</tr>
<tr>
<td>Tribe, n (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soga</td>
<td>222 (52.11)</td>
<td></td>
</tr>
<tr>
<td>Ganda</td>
<td>105 (24.65)</td>
<td></td>
</tr>
<tr>
<td>Nyankole/Kiga</td>
<td>40 (9.39)</td>
<td></td>
</tr>
<tr>
<td>Lugbara</td>
<td>9 (2.11)</td>
<td></td>
</tr>
<tr>
<td>Gisu</td>
<td>13 (3.05)</td>
<td></td>
</tr>
<tr>
<td>Itesot</td>
<td>11 (2.58)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>26 (6.10)</td>
<td></td>
</tr>
<tr>
<td>Religion, n (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christian</td>
<td>234 (55.93)</td>
<td></td>
</tr>
<tr>
<td>Moslem</td>
<td>123 (28.87)</td>
<td></td>
</tr>
<tr>
<td>Born again</td>
<td>52 (12.21)</td>
<td></td>
</tr>
<tr>
<td>Orthodox</td>
<td>10 (2.35)</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>7 (1.64)</td>
<td></td>
</tr>
<tr>
<td>Marital status, n (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>333 (78.17)</td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>35 (8.22)</td>
<td></td>
</tr>
<tr>
<td>Separated/divorced</td>
<td>45 (10.56)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>13 (3.05)</td>
<td></td>
</tr>
<tr>
<td>Highest level of education attained, n (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>37 (8.69)</td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>160 (37.56)</td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td>208 (48.83)</td>
<td></td>
</tr>
<tr>
<td>Tertiary</td>
<td>21 (4.93)</td>
<td></td>
</tr>
</tbody>
</table>
The majority of the participants 161 (37.8%) were between 25-29 years followed by 30-34 years old 118 (27.7%). Nearly a half the participants were living in rural settings. Seventy eight percent of the participants were married. About a half of the participants had a secondary school education (48.8%), followed by those with a primary education (37.6%).

5.2 The proportion of HIV positive breastfeeding women disclosing HIV status to their sexual partners

The Overall the proportion of HIV positive breastfeeding women disclosing their HIV status to their sexual partners was 55.2%. The level of disclosure of HIV status to sexual partners among HIV positive breastfeeding women was highest among those aged 30-34 years old, followed by those greater than 40 years.
5.3 A bivariable analysis of the factors associated with disclosure of HIV status to sexual partners is shown in Table 2.

Table 2: Bivariable analysis between demographic factors and disclosure of HIV status to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja District, Uganda

<table>
<thead>
<tr>
<th>Demographic factors</th>
<th>Demographic characteristic(s)</th>
<th>HIV status disclosed N (%)</th>
<th>HIV status not disclosed N (%)</th>
<th>OR (95% CI)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td></td>
<td>235 (55.16)</td>
<td>191 (44.84)</td>
<td>Reference</td>
<td></td>
</tr>
<tr>
<td>Age categories in years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;25</td>
<td></td>
<td>40 (43.48)</td>
<td>52 (56.52)</td>
<td>1.53 (0.91 – 2.55)</td>
<td>0.107</td>
</tr>
<tr>
<td>25 – 29</td>
<td></td>
<td>87 (54.04)</td>
<td>74 (45.96)</td>
<td>2.63 (1.50 – 4.62)</td>
<td><strong>0.001</strong></td>
</tr>
<tr>
<td>30 – 34</td>
<td></td>
<td>79 (66.95)</td>
<td>39 (33.05)</td>
<td>1.16 (0.54 – 2.52)</td>
<td>0.702</td>
</tr>
<tr>
<td>35 – 39</td>
<td></td>
<td>17 (47.22)</td>
<td>19 (52.78)</td>
<td>2.23 (0.80 – 6.18)</td>
<td>0.123</td>
</tr>
<tr>
<td>≥40</td>
<td></td>
<td>12 (63.16)</td>
<td>7 (36.84)</td>
<td>Reference</td>
<td></td>
</tr>
<tr>
<td>Residence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td></td>
<td>122 (58.10)</td>
<td>88 (41.90)</td>
<td>0.79 (0.54 – 1.16)</td>
<td>0.231</td>
</tr>
<tr>
<td>Rural</td>
<td></td>
<td>113 (52.31)</td>
<td>103 (47.69)</td>
<td>Reference</td>
<td></td>
</tr>
<tr>
<td>Tribe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soga</td>
<td></td>
<td>131 (59.01)</td>
<td>91 (40.99)</td>
<td>Reference</td>
<td></td>
</tr>
<tr>
<td>Ganda</td>
<td></td>
<td>54 (51.43)</td>
<td>51 (48.57)</td>
<td>0.74 (0.46 – 1.17)</td>
<td>0.197</td>
</tr>
<tr>
<td>Nyankole/kiga</td>
<td></td>
<td>20 (50.00)</td>
<td>20 (50.00)</td>
<td>0.69 (0.35 – 1.36)</td>
<td>0.290</td>
</tr>
<tr>
<td>Lugbra</td>
<td></td>
<td>4 (44.44)</td>
<td>5 (55.56)</td>
<td>0.56 (0.15 – 2.13)</td>
<td>0.391</td>
</tr>
<tr>
<td>Giisu</td>
<td></td>
<td>7 (53.85)</td>
<td>6 (46.15)</td>
<td>0.81 (0.26 – 2.49)</td>
<td>0.714</td>
</tr>
<tr>
<td>Itesot</td>
<td></td>
<td>5 (45.45)</td>
<td>6 (54.55)</td>
<td>0.58 (0.17 – 1.95)</td>
<td>0.378</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>14 (53.85)</td>
<td>12 (46.15)</td>
<td>0.81 (0.36 – 1.83)</td>
<td>0.614</td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christian</td>
<td></td>
<td>140 (59.83)</td>
<td>94 (40.17)</td>
<td>Reference</td>
<td></td>
</tr>
<tr>
<td>Moslem</td>
<td></td>
<td>72 (58.54)</td>
<td>51 (41.46)</td>
<td>0.95 (0.61 – 1.48)</td>
<td>0.813</td>
</tr>
<tr>
<td>Born again</td>
<td></td>
<td>19 (36.54)</td>
<td>33 (63.46)</td>
<td>0.39 (0.21 – 0.72)</td>
<td><strong>0.003</strong></td>
</tr>
<tr>
<td>Orthodox</td>
<td></td>
<td>1 (10.00)</td>
<td>9 (90.00)</td>
<td>0.07 (0.01 – 0.60)</td>
<td><strong>0.015</strong></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td>3 (42.86)</td>
<td>4 (57.14)</td>
<td>0.50 (0.11 – 2.30)</td>
<td>0.376</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td></td>
<td>210 (63.06)</td>
<td>123 (36.94)</td>
<td>Reference</td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td></td>
<td>4 (11.43)</td>
<td>31 (88.57)</td>
<td>0.08 (0.03 – 0.22)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Separated/ divorced</td>
<td></td>
<td>15 (33.33)</td>
<td>30 (66.67)</td>
<td>0.29 (0.29 – 0.57)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>6 (46.15)</td>
<td>7 (53.85)</td>
<td>0.50 (0.16 – 1.53)</td>
<td>0.225</td>
</tr>
<tr>
<td>Highest level of education attained</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
<td>14 (37.84)</td>
<td>23 (62.16)</td>
<td>Reference</td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td></td>
<td>92 (57.50)</td>
<td>68 (42.50)</td>
<td>2.22 (1.07 – 4.63)</td>
<td><strong>0.033</strong></td>
</tr>
<tr>
<td>Secondary</td>
<td></td>
<td>117 (56.25)</td>
<td>91 (43.75)</td>
<td>2.11 (1.03 – 4.33)</td>
<td><strong>0.041</strong></td>
</tr>
<tr>
<td>Tertiary</td>
<td></td>
<td>12 (57.14)</td>
<td>9 (42.86)</td>
<td>2.19 (0.74 – 6.52)</td>
<td>0.159</td>
</tr>
</tbody>
</table>
The participants aged between 30-34 years were 2.63 times more likely to disclose their HIV status to their sexual partners as compared to their < 25 years old age group (OR= 2.63, 95% CI: 1.50, 4.62, p=0.001). The participants who had a primary education and secondary education level were more likely to disclose their HIV status (OR= 2.22 95% CI: 1.07, 4.63, p= 0.033) and (OR=2.11 95%CI: 1.03, 4.33,p=0.041) respectively. The born again and orthodox were less likely to disclose their HIV status to their sexual partners (OR=0.39 95% CI: 0.21, 0.72, p = 0.003), (OR=0.07, 95% CI: 0.01, 0.60 p= 0.015) respectively as compared to the Christians. The single participants were 0.08 times less likely to disclose their HIV status to their sexual partners as compared to the married HIV positive women(OR=0.08,95%CI: 0.03, 0.22, p<0.001). The separated/divorced participants were 0.29 times less likely to disclose (OR=0.29, 95%CI: 0.29, 0.57,p<0.001) their HIV status than their married counterparts.

5.4 Bivariant analysis of the social factors associated with disclosure of HIV status to sexual partners
Table 3: Bivariable analysis between social factors and disclosure of HIV status to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district, Uganda

<table>
<thead>
<tr>
<th>Social factors</th>
<th>HIV status Disclosed N (%)</th>
<th>HIV status not disclosed N (%)</th>
<th>OR (95% CI)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Witnessing people disclosing in the community</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knows someone who has tested for HIV</td>
<td>No</td>
<td>58 (40.56)</td>
<td>85 (59.44)</td>
<td>Reference 2.45 (1.62 – 3.69) &lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>177 (62.54)</td>
<td>106 (37.46)</td>
<td></td>
</tr>
<tr>
<td>Has anyone disclosed HIV status to you</td>
<td>No</td>
<td>62 (40.79)</td>
<td>90 (59.21)</td>
<td>Reference 2.56 (1.70 – 3.85) &lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>173 (63.84)</td>
<td>98 (36.16)</td>
<td></td>
</tr>
<tr>
<td><strong>Family member support</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any family member knowing mother’s HIV status</td>
<td>No</td>
<td>51 (36.17)</td>
<td>90 (63.83)</td>
<td>Reference 3.21 (2.11 – 4.90) &lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>184 (64.56)</td>
<td>101 (35.44)</td>
<td></td>
</tr>
<tr>
<td><strong>Discussion prior to HIV testing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any family member aware that the mother was going to test for HIV</td>
<td>No</td>
<td>158 (50.64)</td>
<td>154 (49.36)</td>
<td>Reference 2.03 (1.29 – 3.18) 0.002</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>77 (67.54)</td>
<td>37 (32.46)</td>
<td></td>
</tr>
<tr>
<td>Person made aware before testing</td>
<td>Sexual partner</td>
<td>44 (89.80)</td>
<td>5 (10.20)</td>
<td>Reference 0.07 (0.02 – 0.24) 0.001</td>
</tr>
<tr>
<td></td>
<td>Parents</td>
<td>13 (39.39)</td>
<td>20 (60.61)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Siblings</td>
<td>9 (50.00)</td>
<td>9 (50.00)</td>
<td>0.11 (0.03 – 0.42) 0.001</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>11 (78.57)</td>
<td>3 (21.43)</td>
<td>0.42 (0.09 – 2.02) 0.276</td>
</tr>
<tr>
<td><strong>Protecting the integrity of the relationship</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reason for making family member aware before testing</td>
<td>To Keep relationship</td>
<td>104 (51.23)</td>
<td>99 (48.77)</td>
<td>Reference 1.57 (1.04 – 2.36) 0.031</td>
</tr>
<tr>
<td></td>
<td>Needed support</td>
<td>112 (62.22)</td>
<td>69 (37.78)</td>
<td>0.95 (0.48 – 1.90) 0.889</td>
</tr>
<tr>
<td></td>
<td>Other reason</td>
<td>19 (50.00)</td>
<td>19 (50.00)</td>
<td></td>
</tr>
<tr>
<td><strong>Family planning in the relationship</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of living children by mother</td>
<td>One</td>
<td>34 (48.57)</td>
<td>36 (51.43)</td>
<td>Reference 0.88 (0.50 – 1.54) 0.656</td>
</tr>
<tr>
<td></td>
<td>Two</td>
<td>74 (45.40)</td>
<td>89 (54.60)</td>
<td>2.02 (1.16 – 3.52) 0.013</td>
</tr>
<tr>
<td></td>
<td>Three and more</td>
<td>126 (65.63)</td>
<td>66 (34.38)</td>
<td></td>
</tr>
<tr>
<td>Uses any family planning methods</td>
<td>No</td>
<td>87 (47.54)</td>
<td>96 (52.46)</td>
<td>Reference 1.72 (1.17 – 2.53) 0.006</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>148 (60.91)</td>
<td>95 (39.09)</td>
<td></td>
</tr>
<tr>
<td>Method of family planning</td>
<td>Condom</td>
<td>33 (80.49)</td>
<td>8 (19.51)</td>
<td>Reference 0.30 (0.13 – 0.69) 0.005</td>
</tr>
<tr>
<td></td>
<td>Injectaplan</td>
<td>84 (55.26)</td>
<td>68 (44.74)</td>
<td>0.43 (0.16 – 1.19) 0.105</td>
</tr>
<tr>
<td></td>
<td>Pills</td>
<td>25 (64.10)</td>
<td>14 (35.90)</td>
<td>0.29 (0.07 – 1.20) 0.087</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>6 (54.55)</td>
<td>5 (45.45)</td>
<td></td>
</tr>
<tr>
<td><strong>Fears and stigma</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Had any challenges telling sexual partner about HIV status</td>
<td>No</td>
<td>156 (80.00)</td>
<td>39 (20.00)</td>
<td>Reference 0.13 (0.08 – 0.20) 0.001</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>77 (33.77)</td>
<td>151 (66.23)</td>
<td></td>
</tr>
<tr>
<td>Presence of self-stigma</td>
<td>No</td>
<td>220 (61.28)</td>
<td>139 (38.72)</td>
<td>Reference 0.16 (0.08 – 0.30) 0.001</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>13 (20.00)</td>
<td>52 (80.00)</td>
<td></td>
</tr>
</tbody>
</table>
Knowing people that had tested for HIV and seeing someone disclose to them was associated with disclosure of their HIV status to their sexual partners (OR=2.45, 95%CI: 1.62, 3.69 p < 0.001) and (OR=2.56, 95% CI: 1.70, 3.85 p <0.001) respectively. Disclosing the HIV status to any family member was associated with disclosure of HIV status to the sexual partner (OR=3.21, 95%CI: 2.11, 4.90, p< 0.001). If the participants first discussed with a family member about HIV testing they were 2.03 times more likely (OR=2.03, 95%CI: 1.29, 3.18, p=0.002) to disclose their HIV status to sexual partners. Having 3 or more children and using any one of the family planning methods was associated with more likelihood of disclosure of HIV status to their sexual partners (OR=2.02, 95%CI:1.16, 3.52, p= 0.013) and (OR=1.72, 95% CI: 1.17, 2.53 p = 0.006) respectively. If the reason for discussing with the family member before testing for HIV was the need for support, they were more likely to disclose their HIV status to their sexual partner (OR=1.57, 95%CI: 1.04, 2.36, p = 0.031). The participants who were using injectaplan were less likely to disclose their HIV status to their sexual partners (OR= 0.03, 95%CI: 0.13, 0.69, p=0.005). If the person made aware of the HIV testing were parents or siblings, they were less likely to disclose their HIV status to their sexual partners (OR= 0.07, 95%CI: 0.02, 0.24 P<0.001) and (OR= 0.11, 95%CI: 0.03, 0.42, p= 0.001) respectively. Having any fears and stigmatization in disclosing the HIV status was associated with 0.13 times less likelihood of disclosing their HIV status to their sexual partners(OR= 0.13, 95%CI: 0.08, 0.20, p<0.001) and (OR= 0.16 95%CI: 0.08, 0.30, p <0.001) respectively.

5.5: Bivariable analysis of the economic factors and disclosure of HIV status to sexual partners

Table 4 shows the association between economic factors and disclosure of HIV status to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district.
Table 4: Bivariable analysis between the economic factors and disclosure of HIV status to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district, Uganda

<table>
<thead>
<tr>
<th>Economic factors</th>
<th>HIV status disclosed N (%)</th>
<th>HIV status not disclosed N (%)</th>
<th>OR (95% CI)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source of income</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business</td>
<td>107 (54.87)</td>
<td>88 (45.13)</td>
<td>Reference</td>
<td></td>
</tr>
<tr>
<td>Holds an office</td>
<td>10 (66.67)</td>
<td>5 (33.33)</td>
<td>1.64 (0.54 – 4.99)</td>
<td>0.380</td>
</tr>
<tr>
<td>Peasant farming</td>
<td>30 (52.63)</td>
<td>27 (47.37)</td>
<td>0.91 (0.51 – 1.65)</td>
<td>0.765</td>
</tr>
<tr>
<td>House wife</td>
<td>88 (60.69)</td>
<td>57 (39.31)</td>
<td>1.27 (0.82 – 1.96)</td>
<td>0.284</td>
</tr>
<tr>
<td>Monthly income in Ugandan shillings</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;100000</td>
<td>55 (63.95)</td>
<td>31 (36.05)</td>
<td>Reference</td>
<td></td>
</tr>
<tr>
<td>50000 – 100000</td>
<td>62 (50.00)</td>
<td>63 (50.00)</td>
<td>0.56 (0.32 – 0.99)</td>
<td>0.046</td>
</tr>
<tr>
<td>&lt;50000</td>
<td>30 (61.22)</td>
<td>19 (38.78)</td>
<td>0.89 (0.43 – 1.84)</td>
<td>0.752</td>
</tr>
<tr>
<td>No income</td>
<td>88 (52.69)</td>
<td>79 (47.31)</td>
<td>0.63 (0.37 – 1.07)</td>
<td>0.088</td>
</tr>
<tr>
<td>Who buys food at home</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self</td>
<td>53 (44.54)</td>
<td>66 (55.46)</td>
<td>2.13 (1.38 – 3.29)</td>
<td>0.001</td>
</tr>
<tr>
<td>Sexual partner</td>
<td>178 (63.12)</td>
<td>104 (36.88)</td>
<td>0.18 (0.05 – 0.63)</td>
<td>0.007</td>
</tr>
<tr>
<td>Parent</td>
<td>3 (12.50)</td>
<td>21 (87.50)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who pays school fees at home</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self</td>
<td>29 (42.03)</td>
<td>40 (57.97)</td>
<td>Reference</td>
<td></td>
</tr>
<tr>
<td>Sexual partner</td>
<td>194 (60.44)</td>
<td>127 (39.56)</td>
<td>2.11 (1.24 – 3.57)</td>
<td>0.006</td>
</tr>
<tr>
<td>Parent</td>
<td>3 (14.29)</td>
<td>18 (85.71)</td>
<td>0.23 (0.06 – 0.85)</td>
<td>0.028</td>
</tr>
<tr>
<td>Who pays for house rent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self</td>
<td>24 (36.36)</td>
<td>42 (63.64)</td>
<td>Reference</td>
<td></td>
</tr>
<tr>
<td>Sexual partner</td>
<td>177 (62.77)</td>
<td>105 (37.23)</td>
<td>2.95 (1.69 – 5.15)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Parent</td>
<td>4 (25.00)</td>
<td>12 (75.00)</td>
<td>0.58 (0.17 – 2.01)</td>
<td>0.393</td>
</tr>
</tbody>
</table>

p<0.05 statistically significant

The participants who depended on the sexual partners for food, fees for their children, and house rent were more likely to disclose their HIV status to them (OR=2.13, 95% CI: 1.38, 3.29, p=0.001), (OR=2.11 95% CI: 1.24, 3.57, p=0.006) and (OR=2.95 95% CI: 1.69, 5.15, p< 0.001) respectively. Dependency on parents for only food and fees for their children was associated with less likelihood to disclose the HIV status to their sex partners as compared to those who incurred those costs themselves (OR= 0.18, 95% CI: 0.05, 0.63, p = 0.007) and OR=0.23, 95% CI: 0.06, 0.85, p = 0.028) respectively.
Prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district

5.6 Health service factors associated with disclosure of HIV status to their sexual partners

The study findings indicate that participants who received pre-test counselling from a health worker were 2.74 times more likely to disclose their HIV status (OR= 2.74, 95% CI: 1.09, 6.87, p= 0.031) and testing for HIV 6 months or more were 1.80 times more likely to disclose their HIV status to the sexual partner as compared to their counterparts who had tested for HIV 6 months and earlier as shown in Table 5.

Table 5: Bivariable analysis between health service factors and disclosure of HIV status to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district, Uganda

<table>
<thead>
<tr>
<th>Health Service Factors</th>
<th>HIV status disclosed N (%)</th>
<th>HIV status not disclosed N (%)</th>
<th>OR (95% CI)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test counseling</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Place where tested for HIV</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public health facility</td>
<td>217 (55.64)</td>
<td>173 (44.36)</td>
<td>Reference</td>
<td>0.75 (0.37 – 1.50)</td>
</tr>
<tr>
<td>Private clinic</td>
<td>17 (48.57)</td>
<td>18 (51.43)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Given any information by health worker before testing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>7 (31.82)</td>
<td>15 (68.18)</td>
<td>Reference</td>
<td>2.74 (1.09 – 6.87)</td>
</tr>
<tr>
<td>Yes</td>
<td>224 (56.14)</td>
<td>175 (43.86)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time after HIV testing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 6 months</td>
<td>37 (43.53)</td>
<td>48 (56.47)</td>
<td>Reference</td>
<td>1.80 (1.11 – 2.91)</td>
</tr>
<tr>
<td>6 months and more</td>
<td>197 (58.11)</td>
<td>142 (41.89)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

P-value<0.05 statistically significant

5.7 Multivariable analysis of the factors associated with disclosure using multiple logistic regression

All factors that were significant at bivariable analysis in Tables 2, 3, 4 and 5 were included in multivariable analysis using a multiple logistic regression as shown in Table 6.
Table 6: Unadjusted and adjusted effects for independent factors associated with disclosure of HIV status using a multivariable logistic regression

<table>
<thead>
<tr>
<th>Independent factors</th>
<th>Characteristics</th>
<th>Unadjusted OR (95% CI)</th>
<th>p-value</th>
<th>Adjusted OR (95% CI)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion</td>
<td>Christian</td>
<td>Reference</td>
<td></td>
<td>Reference</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Moslem</td>
<td>0.95 (0.61 – 1.48)</td>
<td>0.813</td>
<td>1.26 (0.70 – 2.27)</td>
<td>0.437</td>
</tr>
<tr>
<td></td>
<td>Born again</td>
<td>0.39 (0.21 – 0.72)</td>
<td>0.003</td>
<td>0.38 (0.17 – 0.85)</td>
<td>0.019</td>
</tr>
<tr>
<td></td>
<td>Orthodox</td>
<td>0.07 (0.01 – 0.60)</td>
<td>0.015</td>
<td>0.10 (0.01 – 1.05)</td>
<td>0.055</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>0.50 (0.11 – 2.30)</td>
<td>0.376</td>
<td>0.24 (0.02 – 2.65)</td>
<td>0.244</td>
</tr>
<tr>
<td>Marital status</td>
<td>Married</td>
<td>Reference</td>
<td>&lt;0.001</td>
<td>Reference</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Single</td>
<td>0.08 (0.03 – 0.22)</td>
<td></td>
<td>0.07 (0.02 – 0.23)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Separated</td>
<td>0.29 (0.29 – 0.57)</td>
<td>&lt;0.001</td>
<td>0.21 (0.09 – 0.50)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>0.50 (0.16 – 1.53)</td>
<td>0.225</td>
<td>0.39 (0.10 – 1.60)</td>
<td>0.193</td>
</tr>
<tr>
<td>Has anyone disclosed HIV status to you</td>
<td>No</td>
<td>Reference</td>
<td>2.56 (1.70 – 3.85)</td>
<td>&lt;0.001</td>
<td>Reference</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any family member knowing mother’s HIV status</td>
<td>No</td>
<td>Reference</td>
<td>3.21 (2.11 – 4.90)</td>
<td>&lt;0.001</td>
<td>Reference</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses any family planning methods</td>
<td>No</td>
<td>Reference</td>
<td>1.72 (1.17 – 2.53)</td>
<td>0.006</td>
<td>Reference</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Had any challenges telling sexual partner about HIV status</td>
<td>No</td>
<td>Reference</td>
<td>0.13 (0.08 – 0.20)</td>
<td>&lt;0.001</td>
<td>Reference</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presence of self-stigma</td>
<td>No</td>
<td>Reference</td>
<td>0.16 (0.08 – 0.30)</td>
<td>&lt;0.001</td>
<td>Reference</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On ART</td>
<td>No</td>
<td>Reference</td>
<td>0.014</td>
<td>Reference</td>
<td>0.097</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>2.78 (1.23 – 6.29)</td>
<td></td>
<td>2.60 (0.84 – 8.04)</td>
<td></td>
</tr>
</tbody>
</table>

The multivariable analysis revealed that demographic and social factors had a significant role in determining whether an HIV positive breastfeeding woman disclosed the HIV status or not as shown below.

Demographic factors

Being born again (AOR=0.38, 95% CI:0.17,0.85, p=0.019), being single (AOR=0.07, 95% CI:0.02,0.23,p <0.001) having separated/divorced from the sexual partner (AOR=0.21,95% CI:0.05–0.79, p=0.004)
Prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district

CI: 0.09, 0.50, p<0.001) were associated with a less likelihood of disclosure of HIV serostatus to their sexual partners

Social factors

Having someone in the community disclosing their HIV status to the HIV positive breastfeeding woman (AOR=1.84, 95% CI: 1.06, 3.22, p=0.031), the participant having disclosed to one of the family members (AOR=2.86, 95% CI: 1.61, 5.07, p<0.001) and using any family planning method (AOR=1.96, 95% CI: 1.13, 3.39, p=0.016) were associated with high likelihood of disclosure of HIV status to the sexual partners, while having challenges/fears disclosing the HIV status (AOR=0.09, 95% CI: 0.05, 0.17, p<0.001) and self-stigma (AOR=0.31, 95% CI: 0.14, 0.69, p=0.004) were associated with less likelihood of disclosure of HIV status to the sexual partners. Also the fears for divorce and deterioration in the relationship were highlighted by an in-depth interview participant at Bugembe HC IV to reduce disclosure of HIV status to sexual partners as follows: “I have been with groups of men discussing HIV amongst themselves, some men say if they went with their sexual partners to the hospital and found out that she is HIV positive, he would “divorce” her and leave her in the hospital.” (Participant in an In-depth Interview (BHC IV))

It was also pointed out that disclosure of HIV status helps HIV positive breastfeeding women to plan with their sexual partners how to reduce the risk of HIV transmission to the baby, planning and caring for their children together as a couple;

“For us women, when you get pregnant, they test you for HIV so if you want to have an HIV free baby you have to tell him” (Participant in an FGD (BHC IV))
Prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district

“It is important that he knows whether he is HIV positive or negative so that he can plan for his children very well.” (Participant in an FGD (BHC IV))

“For me, I got energy to tell my sexual partner because I had nothing to lose, I was already HIV positive, he might still be HIV negative, if we all become HIV positive, children will not have anyone to care for them.” (Participant in an FGD (JRRH))

“It is also important that you both know your HIV status so that you don’t continue re-infecting yourselves with other different HIV strains.” (Participant in an FGD (JRRH))

**Economic factors**

Financial dependence on sexual partners by the HIV positive breastfeeding women greatly prevented them from disclosing their HIV status. This is highlighted in an in-depth interview:

“We want to keep our marriages stable so that the man (sexual partner) finds out by himself. Most of the times, we depend on men (sexual partner) for most of the things, so when you inform him and he stops providing for you and your family, we suffer.” (Participant in an In-depth Interview (JRRH))
CHAPTER SIX

Discussion

6.1 Proportion of HIV positive breastfeeding women disclosing their HIV status to sexual partners
The study findings indicate that only 55.2% of the participants disclosed their HIV status to their sexual partners as compared to the desired target of 100% prevalence of disclosure of HIV status. This is slightly higher than what had been found in other low income countries with the proportion of HIV positive pregnant women disclosing their HIV status ranging between 16.7-46% (Kiula, Damian et al. 2013). This research finding is however higher than what was found in HIV positive pregnant mothers attending ANC centres in Morogoro, South Eastern Tanzania that showed that disclosure of HIV status among HIV positive breastfeeding women was 41% (Kiula, Damian et al. 2013). This finding is again lower than cross sectional study results among HIV positive pregnant women attending public antenatal centres in Addis Ababa, (Sendo, Cherie et al. 2013) that highlighted a disclosure level of 73%. This low disclosure level is consistent with information that fear of accusation of infidelity, abandonment and discrimination from their sexual partners as reported by PLWHAs (Medley, Garcia-Moreno et al. 2004). The fear of being labelled promiscuous, abandonment and discrimination from their sexual partners concurs with my qualitative results as a reason why HIV positive breastfeeding women were not disclosing their HIV status to their sexual partners. One In-depth interview participant reported that “When I left his home, I had never told him that I was HIV positive, after 2 years of separation and staying with my parents, I feared being accused of being promiscuous while at my parents’ home” (Participant in an In-depth Interview (JRRH)
Prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district

Fear of spread of information, stigmatization and deterioration in relationships with the sexual partners could have greatly contributed to the low proportion of HIV positive breastfeeding women disclosing their HIV status to the sexual partners (Olagbuji, Ezeanochie et al. 2011).

This low proportion of HIV positive of breastfeeding women disclosing their HIV status could be attributed to the challenges; fears and stigmatization that these HIV positive breastfeeding women could face upon disclosure of their HIV status. Fears and stigmatization were highlighted by a study done in Kabale among HIV positive women attending HIV treatment and care clinic as having prevented them from disclosing their HIV status to their sexual partners (Osinde, Kakaire et al. 2012)

6.2 Factors associated with disclosure of HIV status to their sexual partners

Demographic factors

The results reveal that if the participants were born again, single, separated/divorced from their sexual partners, they were less likely to disclose their HIV status to their sexual partners. The born again christians could probably have been affected by the teachings by some of their pastors that prayers cure HIV/AIDS. Therefore they could not have disclosed to their sexual partners an ailment “they believe they don’t have. The single, separated/divorced probably had fears or other challenges that could have prevented them from disclosing their HIV status to the sexual partners. The fears/ challenges highlighted by study participants included fear of lack of support, abandonment, deterioration in the relationship, violence in the home, being labelled promiscuous/infidelity, spread of rumours about her HIV status as well as fear of being discriminated against by the sexual partner. Also the fears for divorce and deterioration in the
relationship were highlighted by an in-depth interview participant at Bugembe HC IV as follows: “I have been with groups of men discussing HIV amongst themselves, some men say if they went with their sexual partners to the hospital and found out that she is HIV positive, he would “divorce” her and leave her in the hospital.” (Participant in an In-depth Interview (BHC IV))

These results are consistent with findings from study findings that reported that participants with stigmatization were less likely to disclose their HIV status to their sexual partners (Przybyla, Golin et al. 2013) while a study carried out in Northern Tanzania revealed that stigmatization was associated with denial and limited disclosure of HIV status to the sexual partners (Lyimo, Stutterheim et al. 2014). This is in conformity with what was found out by Olagbuji et al (2011) that highlighted the fear regarding spread of the information, stigmatization and deterioration in the relationship with the spouse. Fear of revealing HIV results in the community prevents HIV positive women from disclosing their HIV status to their sexual partners (Olagbuji, Ezeanochie et al. 2011).

Social factors

The research findings revealed that participants who had a prior disclosure exposure, reliable family support network and were using any family planning method were more likely to disclose to their sexual partners. The findings are in agreement with those of a study done among HIV positive pregnant women in Ethiopia that showed disclosure of HIV status to their sexual partners was enhanced by knowing people who have disclosed their status in the community and openly talk about their HIV status (Alemayehu, Aregay et al. 2014). Witnessing someone disclosing their HIV status to the community encouraged them to disclose their HIV status to the
sexual partners since they learnt they were not the only ones with HIV infection and gave them the confidence to talk about HIV to their sex partners as well.

Family support is fundamental in determining whether or not an HIV positive breastfeeding woman discloses her HIV status to the sexual partner. The study findings show that if the HIV positive breastfeeding women disclosed to any one of the family members, then they were more likely to disclose their HIV status to their sexual partners. This is consistent with a study among HIV positive perinatal women in Thailand where it was found that disclosure of HIV status was more in women with higher family support, and free from discrimination and stigmatization (Wong, Van Rooyen et al. 2009; Ross, Stidham et al. 2012). This was attributed to the family members giving a favourable social environment for the HIV positive breastfeeding women to disclose their HIV status. This study also revealed that participants who were using any family planning method were more likely to disclose their HIV status to their sexual partners. This research finding is consistent with findings from a study conducted among HIV positive women in Mettu South Western Ethiopia that revealed that use of condoms was associated with disclosure of HIV status to their sexual partners (Kassaye, Lingerh et al. 2005). This could be due to HIV positive breastfeeding women using family planning engaging their sexual partners more about their sexual and reproductive health issues. This rather improves the communication between the couples, which in turn improves their confidence to disclose to the sexual partners. These findings concur with findings that disclosure of HIV status encourages communication and support from the sexual partner in sexual and reproductive health lives of their sexual partners (Shikwane, Villar-Loubet et al. 2013)
Prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district

It was also pointed out that disclosure of HIV status helps HIV positive breastfeeding women to plan with their sexual partners how to reduce the risk of HIV transmission to the baby, planning and caring for their children together as a couple; These qualitative research results seemed to be far different from the quantitative one but it further provided information that is more real and personal to the life of HIV positive breastfeeding women and they stated as follows:

“For us women, when you get pregnant, they test you for HIV so if you want to have an HIV free baby you have to tell him” (Participant in an FGD (BHC IV))

“It is important that he knows whether he is HIV positive or negative so that he can plan for his children very well.” (Participant in an FGD (BHC IV))

“For me, I got energy to tell my sexual partner because I had nothing to lose, I was already HIV positive, he might still be HIV negative, if we all become HIV positive, children will not have anyone to care for them.” (Participant in an FGD (JRRH))

“It is also important that you both know your HIV status so that you don’t continue re-infecting yourselves with other different HIV strains.” (Participant in an FGD (JRRH)).

The well-being of the children appeared to be a biggest motivation for the HIV positive breastfeeding women to disclose their HIV status to their sexual partners.

Economic factors

And because men usually provide for women financially, socioeconomic vulnerability and fear of violence, abandonment in cases when the sexual partner does not accept the HIV positive status of the woman, leads to HIV positive breastfeeding women not disclosing to the sexual partner (Roxby, Matemo et al. 2013). This is also true of a systematic review of seventeen studies carried out in Sub Saharan Africa and South East Asia that revealed that fear of
acculations of infidelity, abandonment, discrimination and violence led to the low disclosure to the sexual partners (Medley, Garcia-Moreno et al. 2004). These findings are also in agreement with results from a qualitative study carried out among HIV positive pregnant women in Mbale Regional Referral Hospital in 2012 that showed that reasons for non-disclosure were: fear of abandonment, violence and accusation of bringing HIV infection into the family, losing support to her children, divorce (Rujumba, Neema et al. 2012). Financial dependence on sexual partners by the HIV positive breastfeeding women greatly prevented them from disclosing their HIV status. This is showed in an IDI at Jinja Regional Referral Hospital: “We want to keep our marriages stable so that the man (sexual partner) finds out by himself. Most of the times, we depend on men (sexual partner) for most of the things, so when you inform him and he stops providing for you and your family, we suffer.” (Participant in an In-depth Interview (JRRH))

6.3 Study Limitations

The responses were purely depend on the HIV positive breastfeeding women because the study design did not allow to verify the disclosure patterns with their sexual partners. The prevalence of disclosure of HIV status could be either lower or even higher. The study team however did everything possible to report credible findings. The study reported 100% response rate.
CHAPTER SEVEN

Conclusion

7.1 Conclusion

About a half of the HIV+ breastfeeding women had ever disclosed their HIV serostatus to their sexual partners. Being born again, single, having separated/divorced from the sexual partner were associated with a less likelihood of disclosure of HIV serostatus to their sexual partners. Results from qualitative research showed that the fears/challenges in their relationships prevented the HIV positive breastfeeding women from disclosing their HIV status to the sexual partners. Prior experiences of disclosure of HIV serostatus, reliable family support and being on any family planning method increased the likelihood of disclosure of the HIV status to the sexual partner. Qualitative research methods indicated that welfare of the children encouraged the HIV positive breastfeeding women to disclose their HIV status to their sexual partners.

7.2 Recommendations

1. Focused counselling ought to be given to the born again christians, single, separated/divorced and those with any fears and self-stigma by the health workers, linkage facilitators and expert clients for behaviour change among these persons.

2. HIV positive persons in the community should be encouraged to talk freely about their HIV serostatus by inviting them to talk at community gatherings like churches, ANC and postnatal clinic visits that have been attended by HIV positive breastfeeding women.
3. Health education efforts by community and facility health workers should be directed towards maintaining a good family support network free of discrimination and stigma as well as encouraging family planning among HIV positive breastfeeding women.

4. There is need for the Implementing Partner to empower HIV positive breastfeeding women groups with income generating activities/trainings to enable them live independent lives free from dependence on the sexual partner.
REFERENCES


Rujumba, J., S. Neema, et al. (2012). "“Telling my husband I have HIV is too heavy to come out of my mouth”: pregnant women's disclosure experiences and support needs following antenatal HIV testing in eastern Uganda." *Journal of the International AIDS Society* **15**(2).


Prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district

Prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district

Appendices

Appendix 1: Consent Form

Title of the study: The prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district.

I am Dr. Atwongyeire Dickens a student at the School of Public Health Makerere University. I am carrying out a study on prevalence and factors associated with disclosure of HIV status to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district.

Reason for the study. I would like to assess the prevalence and factors associated with disclosure of their HIV serostatus to sexual partners among HIV positive breastfeeding women. This will help facility in-charges and the district to refocus their efforts towards the identified factors for the success of the eMTCT programme.

Benefits of the study. The findings of the study will provide evidence based information on the prevalence and factors associated with disclosure of HIV status to sexual partners of breastfeeding women to their sexual partners in Jinja district. No allowances, transport refund or any other benefits will be provided to the participant.

Risks of the study. Some of the questions I will ask you will be sensitive but please be assured that this discussion is strictly confidential, and names will not be recorded. The findings of the study will be generalized and they will not be tagged to any individual participant.

Participation in the study. Participation in the study is voluntary and you are free to exit the study when you feel you want to do so. I would like to seek your consent before I proceed. Are you willing to allow me to continue with the interview?

1. Yes          2. No
Prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district

If the respondent agrees to continue, offer her a pen to apprehend her signature or thumbprint as evidence of accepting to participate in this study. Ask her if she has any questions, answer them and proceed with the interview.

Participant signature/thumb print……………Tel. No ………………Date …………………

Initials of interviewer…………Tel. no. of the interviewer…………………….. Date……………

For further information about this study please do not hesitate to contact the Principal investigator Dr. Atwongyeire Dickens Tel No.0712-984004 e-mail: adickens2000@yahoo.co.uk
Appendix 2: Data collection tool

Demographic characteristics

Qn. 1 Name of Village (LC1)…………………………. Parish………………………………

Qn. 2. How old are you in completed years (15-49 years)…………………………

Qn. 3 Is your residence rural or urban?
   1) Urban  2) Rural

Qn. 4 What is your tribe
   1) musoga  2) muganda  3) munyankole/mukiga  4) Lugbara  5) others specify…………………………

Qn. 5 What is your religion?
   1) Christian  2) Moslem  3) Born again  4) Orthodox  5) others specify……………..

Qn. 6 What is your marriage status?
   1) Married  2) single  3) Separated  4) Divorced  5) Widowed

Qn. 8 what is your highest level of education attained?
   1) None  2) primary  3) Secondary  4) Tertiary

Objective 1: Prevalence of disclosure of HIV status to sexual partners among HIV positive breastfeeding mothers attending eMTCT clinics in Jinja district

Qn. 9 Have you disclosed your HIV results to your sexual partner?
   1) Yes  2) No

Objective 2a: To identify factors that facilitate disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district.

Economic
Prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district

Qn. 10a) what do you do for a living?

1) hold an office 2) businesswoman 3) peasant farmer 3) housewife 4) others specify…………………………………………………………………………………………………………………………………………………

Qn 10b) what is your monthly income in Uganda shillings? …………………

Qn. 11a) In your home who buys food in the household?

1) Myself (breastfeeding mother) 2) Sexual partners 3) my mother 4) my father 5) others specify ………………………………………

Qn 11b) In your home who pays children school fees?

1) Myself (breastfeeding mother) 2) Sexual partners 3) my mother 4) my father 5) others specify…………………………………………

Qn.11c) In your home who pays rent?

1) Myself (breastfeeding mother) 2) Sexual partners 3) my mother 4) my father 5) others specify ………………………………………

Social

Witnessing people disclosing in the community

Qn. 12 Do you know anyone who has tested for HIV?

1) Yes 2) No

Qn. 13a) Has any one of them told you that they are HIV positive?

1) Yes………………If yes, go to Qn.13b 2) No…………if no go to question 14

Qn. 13b) Who have you seen talking about their HIV status?

1) Expert client/mentor mother 2) VHT member 3) Family support group meeting 4) Others specify……………………………………

Qn. 13c What message did you pick from the speech about HIV
1) disclosing to sexual partner 2) adherence to ARVs 3) eMTCT 4) others specify

Family member support

Qn. 14 Does anyone in your family know that you are HIV positive

1) Yes…………. if yes go to question 14b 2) No……….if No go to question 17

Qn. 14 b, who are they?

1) Parents 2) Siblings 3) Children 4) others specify

Qn. 15 How did they get to know about your HIV positive status?

1) I told them myself 2) They escorted me to get results 3) they got information from other people 4) others specify

Qn. 16 How did the family members react to your HIV positive results?

1) they supported me 2) discriminated against me 3) others specify

Discussion prior to HIV testing

Qn. 17a) Were your family members aware that you were going to test for HIV?

1) Yes…………if yes go to question 17b 2) No…………..if no go to question 19

Qn. 17b) Who are those people that you told?

1) Sexual partner 2) Parents 3) Siblings 4) Children 5) others specify

Qn. 18 What issues did you discuss with them?

1) disclosure 2) adherence to ARVs 3) eMTCT 4) need for support 5) others specify

Protecting the integrity of the relationship

Qn.19 why did you take the action in Qn.17a before you tested for HIV?
Prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district

1) safeguarding the integrity of the relationship

2) I needed support

3) Others specify…………………………………………………………………………………………

Use of condoms in the relationship

Qn. 20 How many living children do you have?

1) One 2) Two 3) 3 and more

Qn. 21 Do you use any family planning methods with your sexual partner?

1) Yes…….. If yes, go to question 22 2) No……..if No go to question 23

Qn. 22 Mention the method of family planning you are using.

1) condom 2) injectaplan 3) pills 4) others specify…………………………………………………………………………………………

Health service

Pre-test counseling

Qn. 23 where did you test for HIV

1) Nearby government Health facility 2) private clinic

Qn. 24 Where you given any information by a health worker about HIV before you tested for HIV?

1) Yes……..if yes go to question 25 2) No……..if no go to question 26

Qn. 25 What information were you given?

1) About HIV 2) HIV transmission 3) prevention 4) positive living 5) others specify……………………………………
Prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district

Time after HIV testing

Qn. 26 How much time has passed since testing for HIV?

1) less than 6 months    2) 6 months and more

Symptoms at the baseline

Qn. 27 what signs/symptoms prompted you to test for HIV (Circle all correct)

1) None
2) mouth sores
3) skin rash
4) diarrhea
5) vomiting
6) Coughing
7) Fevers
8) Others specify……………………………………………………………………

ART initiation

Qn. 28 Are you now on ART from this clinic?

1) Yes    2) No

Objective 2b:

To identify factors that inhibit disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district.

Fears of disclosing HIV status to sexual partner

Qn. 29a Have you had challenges of telling your sexual partner about your HIV status?
Prevalence and factors associated with disclosure of HIV serostatus to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district

1) Yes………if yes got to question no. 29b  2) No………if no got to question 30

Qn. 29b What challenges have you had telling your sexual partner about your HIV status?

1) fear of lack of support for my children fees/ food /rent

2) Fear of spread of information/Rumors

3) fear of abandonment

4) fear of deterioration in the relationship with partner

5) fear of discrimination by family and community

6) fear of being labelled promiscuous/unfaithful/infidelity

7) fear of violence

8) others (specify) …………………………………………

Qn. 30 Assessment of self-stigma- This has been adopted from HIV/AIDS stigma instrument for people living with HIV/AIDS (HASI-P) but modified to measure the presence of stigma. For this study any 3 present will indicate self-stigma, Have you felt or thought this way because of your HIV status.

1) I felt I did not deserve to live

2) I felt ashamed of the disease

3) I felt completely worthless

4) I felt I brought a lot of trouble in my family

5) I felt that am no longer a person

Does the participant have self-stigma?

1) Yes  2) No

Timing of testing
Qn. 31 When did you test for HIV during last recent pregnancy?

1) during the first 3 months (trimester 1)

2) during the 4th – 6th months (trimester 2)

3) during the 7th – 9th months (trimester 3)

Qn. 32 Do you know your sexual partner’s HIV status?

1) Yes…………if yes go to question 33  2) No

Qn. 33 What is his HIV status?

1) HIV positive  2) HIV negative
Appendix 3: In-depth interview guide

Title: The prevalence and factors associated with HIV status disclosure to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district.

Initials of Interviewer………………………Tel. no. ………………………………………………………………

Introduction – Welcome

My name is Dr. Atwongyeire Dickens, a student at Makerere University School of Public Health. I am conducting a study to determine the prevalence and factors associated with disclosure of HIV status to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district. The purpose of this study is to generate information that would be used to identify individuals least likely to disclose and counsel them accordingly, as well as enhancing policies that would enhance partner disclosure among breastfeeding women attending eMTCT clinics in Jinja. The information will be confidential and it will be used for research purposes only. Please feel free to give your opinion.

Signature of respondent ………………………………Date of interview…………………………

Name of health facility……………………… ……………

I would like to start this interview by introducing yourselves, Note to Interviewer: the researchers should also introduce themselves

1) What services are offered to HIV positive breastfeeding women at this facility? Probe whether disclosure counseling is offered

2) How do HIV positive breastfeeding mothers learn about these services at this facility?

3) What reasons stop HIV positive breastfeeding women from disclosing to their sexual partners?

4) In your view, how can partner HIV disclosure be promoted in eMTCT clinics?

5) Do you have any questions for us to respond to?

6) Please endeavor to attend to questions raised by the participants.

Thanks for attending this Interview
Appendix 4: Focus Group Discussion

The prevalence and factors associated with HIV status disclosure to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district.

Initials of Interviewer………………………Tel. no. ……………………………………………

Introduction –Welcome

My name is Dr. Atwongyeire Dickens, a student at Makerere University School of Public Health. I am conducting a study to identify the prevalence and factors associated with disclosure of HIV status to sexual partners among HIV positive breastfeeding women attending eMTCT clinics in Jinja district. The purpose of this study is to generate information that would be used to identify individuals least likely to disclose and counsel them accordingly, as well as enhancing policies that would enhance partner disclosure among breastfeeding women attending eMTCT clinics in Jinja. The information will be confidential and it will be used for research purposes only. Please feel free to give your opinion without being biased by your colleagues’ comments

Name of health facility……………………… Date of interview………………

Signature of respondent ………………………………………………………………

I would like to start the interview by introducing ourselves so that we know each other well. Note to interviewer: Researchers should also introduce themselves. This discussion will be as interactive and participatory as possible.

1) What do you say about the topic I have introduced to you?

2) What services are offered to HIV positive breastfeeding women at this facility? Probe whether HIV status disclosure counseling is offered by health workers

3) How do HIV positive breastfeeding mothers learn about these services at this facility?

4) What reasons encourage HIV positive breastfeeding woman to disclose to their sexual partner?
5) In your view, how can partner HIV disclosure be promoted in eMTCT clinics?

6) Do you have any questions for us to respond to?

7) Please endeavor to attend to questions raised by the participants.

Thanks for attending this Interview