INFLUENCE OF PRACTICING HIV BIOMEDICAL PREVENTION STRATEGIES ON MARITAL STABILITY OF SEXUALLY ACTIVE DISCORDANT COUPLES IN UGANDA: CASE OF DISCORDANT COUPLES LIVING IN BUGIRI DISTRICT

BY

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DEDICATION

In a special way, I dedicate this study to my beloved mother; Mariam Talibba, my two grandmothers; Nalumansi Asinansi & Zainabu Kakai and my living Dad, Isheamel Maganga whose unlimited support and assistance has got me this far.

May Allah grant you good Health, Wealth and Love

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Mwajumah Bint Med

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LIST OF ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
ART	Anti-retroviral Therapy
ARV	Anti-retroviral drugs
ANC	Ant Natal Clinic
BUNASO	Bugiri Network of AIDS Service Organisations
CBOs	Community Based Organizations
CCAs	Community Counselling Aides
CHCT	Couple HIV Counselling and Testing
CSOs	Civil Society Organizations
CSWs	Commercial Sex Workers
FBOs	Faith Based Organizations
FGD	Focus Group Discussion
GBV	Gender Based Violence
GoU	Government of Uganda
HAART	Highly Active Antiretroviral Therapy
HAART	Highly Active Antiretroviral Treatment
HCT	HIV Counseling and Testing
H/C	Health Centres
HIV	Human Immuno-deficiency Virus
HTC	HIV Testing and Counselling
IDI	In-Depth Interviews
IGAs	Income Generating Activities
KIs	Key Informants
MMC	Medical Male Circumcision
MoH	Ministry of Health
MoT	Modes of Transmission Study
MSMs	Men who have Sex with Men
N/A	Not Applicable
NACWOLA	National Community of Women Living with HIV&AIDS
NAFOPHANU	National Forum of People Living with HIV&AIDS Networks in Uganda
NGO	Non Governmental Organisation
NSAs	Network Support Agents
NSP	National Strategic Plan
PEP	Post-exposure Prophylaxis
PEPFAR	US President's Emergency Plan for AIDS Relief
PEs	Peer Educators
PLWHIV	People Living with HIV&AIDS
PMTCT	Prevention of Mother to Child Transmission
SMC	Safe Male Circumcision
STAR	Societies Tackling AIDS through Rights
STIs	Sexually Transmitted Infections
TASO	The AIDS Support Organization
UA	Universal Access

UAC	Uganda AIDS Commission
UBOS	Uganda Bureau of Statistics
UDHS	Uganda Demographic and Health Survey
UN	United Nations
UNAIDS	The Joint United Nations Programme on HIV&AIDS
UNASO	Uganda Network of AIDS Service Organizations
UNGASS	United Nations General Assembly Special Session
UNICEF	United Nations Children Fund
UPE	Universal Primary Education
USAID	United States Agency for International Development
USE	Universal Secondary Education
VCT	Voluntary counselling and Testing
VHT	Village Health Team
VHTs	Village Health Teams
WHO	World Health Organisation

OPERATIONAL DEFINITIONS

Abstinence: Refers to sexual abstinence which means the avoidance of sexual intercourse as well as any genital contact or genital stimulation

Biomedical This study adopted the UNAIDS definition of biomedical prevention strategies, which refers to the prevention strategies that have a medical background. In this case, the strategies include; safe male circumcision, sexually transmitted infections management, highly active antiretroviral therapy and consistent correct condom use.

Condom: A condom is a latex or rubber tubular sheath used during sexual intercourse to form a two-way barrier that prevents the passage of genital fluids and their contents

Condom use: Condom use refers to the correct enclosure of the penis in a male condom before and during sexual intercourse done correctly and consistently.

Consistent use: Means using a condom from start to finish with each act of intercourse.

Correct use: Use of new condom for each act of intercourse, putting on the condom as soon as erection occurs and before any sexual contact (vaginal, anal or oral). Withdraw from the partner immediately after ejaculation, holding the condom firmly to keep it from slipping off.

Discordant couples: Refers to HIV sero-different partners, though couple refers to two- a man and a woman. In this case, discordant couple refers to both monogamous and polygamous marriages/sexual relationships.

Funding break: This simply refers to a period between times when a project has money to implement activities and when it does not have the money for such programme activities. It is actually a break in funding

High-risk sex: Sexual practices that do not protect the HIV negative partner from infection

Knowledge: Knowledge level in this case is the extent to which the discordant couples understand issues related to HIV risk reduction with the use of biomedical prevention strategies

Lived experiences: The term lived experience is used to describe the first-hand accounts and impressions of living as a member of a minority or any other special group. When discordant couples talk about what it's like to be in an HIV discordant relationship in a predominantly concordant couples community (where both wife and husband are either HIV negative or positive), they are describing their lived experiences.

Male circumcision: Is the removal of a fold of loose skin (the foreskin or prepuce) that covers the head (glans) of the flaccid penis.

Marriage: Marriage in this study refers to any couple that has lived together for at least 2 years with or without undertaking the legal marriage procedures (introduction, wedding….)

Marital stability: Though Robert Sternberg defines marital stability as the "presence of passion, intimacy, and commitment that keeps the marriage intact until its dissolution through natural causes like death of one of the spouses. In this study however, marital stability is not about length of marriage, but rather quality of marriage. It is also not about absence of marital problems, it is about signs of commitment that keeps the marriage meaningful.

Practices: HIV prevention practices refers to the use or adoption of the proven biomedical prevention strategies targeting sexually active discordant couples

Prevalence: Is defined as the total number of cases of HIV at a point in time per base population. It is usually expressed as a percentage

Positive living: Positive living involves individual actions that promote good health for the people living with HIV. It may also include prevention with the positives, which promotes prevention of further spread of HIV by those already living with the virus

Separation: Short lived separation in this study refers to where couples disagree to the extent of a wife living the house for some period until such a time when they agree to get back as wife and husband. This is common in the study community, and

its locally referred to as divorce, though has no legal procedure.

Sexually active: Those couples that still practice both protected and unprotected sex

Strategies: In this study strategies refer to plans developed to prevent further spread of HIV among discordant couples

Synopsis: Though it may mean many other things, in this study, it only refers to an outline of chapter content

GUIDE TO READERS

Figures and tables;

Labels for figures and tables are numbered continuously from chapter one to chapter four. However, the first number on the label represents the chapter; for example; table 1.2 refers to table two, found in chapter one and figure 3.32 refers to figure 32, found in chapter three.

To avoid flooding the document with tables, each section has one frequency table that combines all the frequencies, which are differently explained under sub titles with visual illustrations using charts. The charts however have no value/frequency labels. The version of SPSS used did not allow the command of value labels. The charts are however well explained using data in the frequency tables and text written above each figure.

Synopsis;

Each chapter starts with a synopsis. This basically gives a glimpse of an outline/organization/structure of the chapter's content.

ABSTRACT

Background: Even though there is a risk of HIV transmission among sexually active discordant couples, such kinds of marriages continue to grow in numbers. The aim of this study was to establish what influence the practice of HIV biomedical prevention strategies has over marital stability of sexually active discordant couples in Uganda. Biomedical prevention strategies in this study were limited to Highly Active Retroviral Therapy, Safe Male Circumcision, Consistent Correct Condom use and management of sexually transmitted infections.

Method: The study was conducted in the district of Bugiri, Eastern part of Uganda. A cross-sectional survey design was used to generate descriptive and analytical data mainly from 60 key respondents and 6 key informants. The KIs were selected from Health Workers and Community Counselling Aides involved in implementation of programmes promoting prevention of HIV infections among discordant couples in Bugiri district, while for Key respondents; discordant couples were identified from the hospital registers following the inclusion criteria. Key respondents included 30 men and 30 women, of which 15 women were HIV positive and the other 15 were HIV negative. Likewise, 15 men were HIV positive and the other 15 were HIV negative. Frequencies and cross tabulations were used for analysis of quantitative data, while thematic analysis was used for qualitative findings.

Results: 49 (81.7%) of respondents had a good knowledge of HIV biomedical prevention strategies, which is assumed to have influenced their prevention practices. In the assessment of the extent to which discordant couples use HIV

biomedical prevention strategies, the results show that: Out of the 30 people living with HIV involved in the study, 19 (63%) were HAART clients, 21 (70%) of the 30 men were circumcised, 46 (76.7%) of all respondents practiced condom use consistently and correctly, however, only 24 (40%) of all the 60 respondents treated their STIs as prescribed by the doctors all the times. Marital stability was measured through scoring quality of partner relationships and sexual life of discordant couples and from the frequency tables and cross tabulations, majority of respondents ascertained that their decision to continue living together was partly influenced by the availability and utilization of HIV biomedical prevention strategies. However, results show that discordant couples sex life scores is low in the area of sexual desire, while partner relationships score low in the area of disagreement settling. Nevertheless, the respondents reported registered improvements in partner relationships where 39 (65%) reported reduced numbers of separation, 57 (95%) reported reduced stigma from their spouses, 42 (70%) reported improvement in amount of consideration from the spouse, and 52 (86%) reported improved affection from the their spouses.

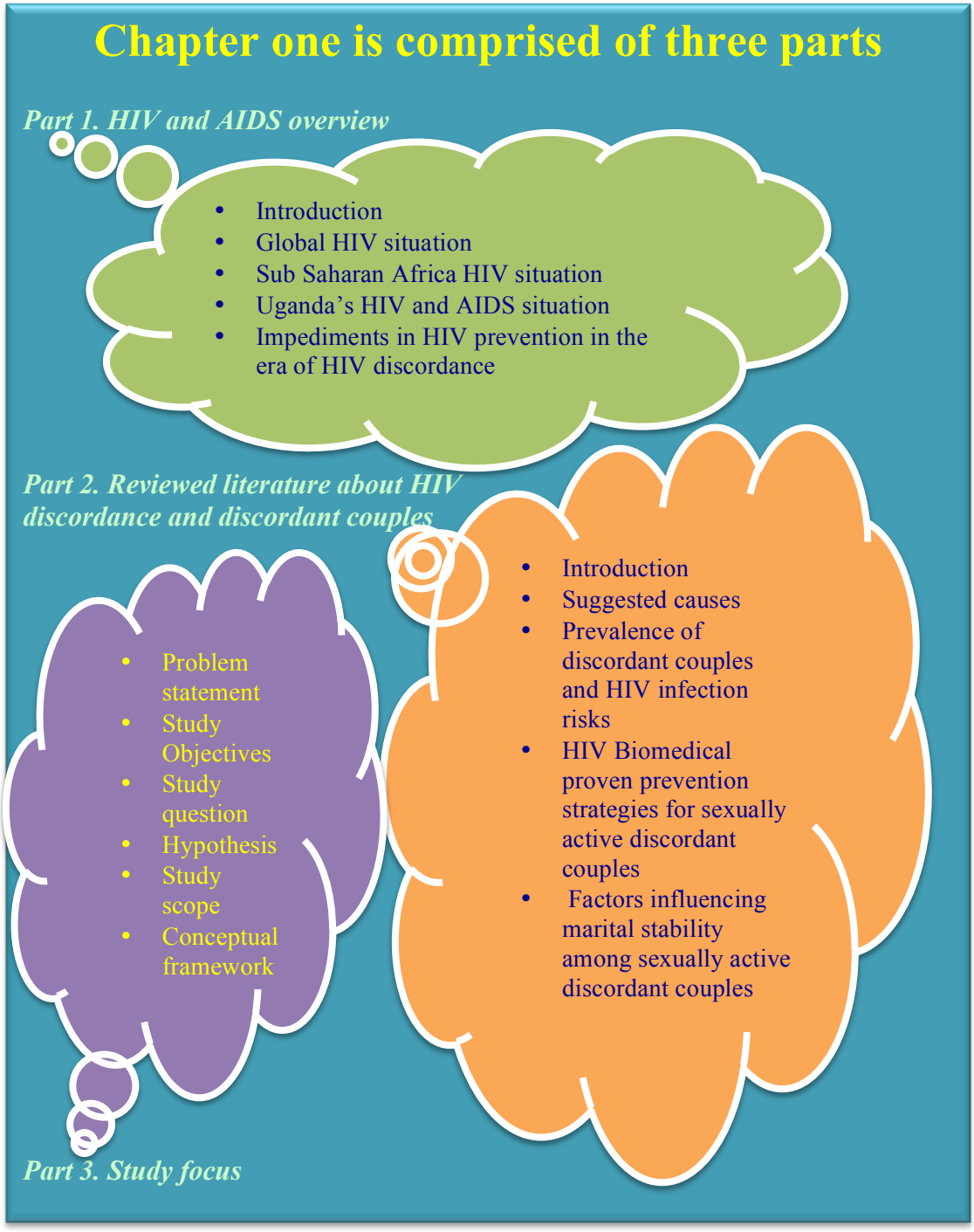
Conclusion; Overall, HIV biomedical prevention strategies are known to the discordant couples and the level of prevention practices is relatively good, as a result HIV biomedical prevention strategies have had a positive impact on both quality of partner relationships and the sexual life of discordant couples hence contributing to their marital stability. Though it was hypothesized that with correct knowledge, all the couples would practice the applicable HIV biomedical prevention strategies, this is not the case; strategies like HAART depend largely

on accessibility, availability and affordability though knowledge is the entry point. Some people will not practice the prevention strategy because of personal dislike, like the use of condoms, while the poor health seeking behaviours have highly compromised the success of STI management as a strategy. Beyond HIV prevention strategies, the discordant couples mentioned other factors that influenced their decision to continue with their marriage and these include: number of children, religion, length of marriage, family ties, love and support offered by the counsellors.

CHAPTER ONE

BACKGROUND INFORMATION

1.0. SYNOPSIS



1.1. PART ONE- HIV AND AIDS

1.1.1 INTRODUCTION

Acquired immune deficiency syndrome commonly known as AIDS is a disease without cure, basically defined by its symptoms that are caused by Human Immunodeficiency Virus -HIV (Philemon, 2008), (Viviane D. Lima, 2008). HIV is a virus that can be passed from one person to another through the exchange of body fluids such as blood, semen, breast milk and vaginal secretions. Although there are many ways of transmission, it is important to note that sexual contact is the most common way through which HIV is spread (Jorge Del Romero, 2010), (Duncle, 2008). As HIV reproduces, it damages the body's immune system and the body becomes susceptible to illnesses and infections that are usually referred to as opportunistic infections (OIs), which are a representation of the AIDS stage (Nathan Ford, 2010).

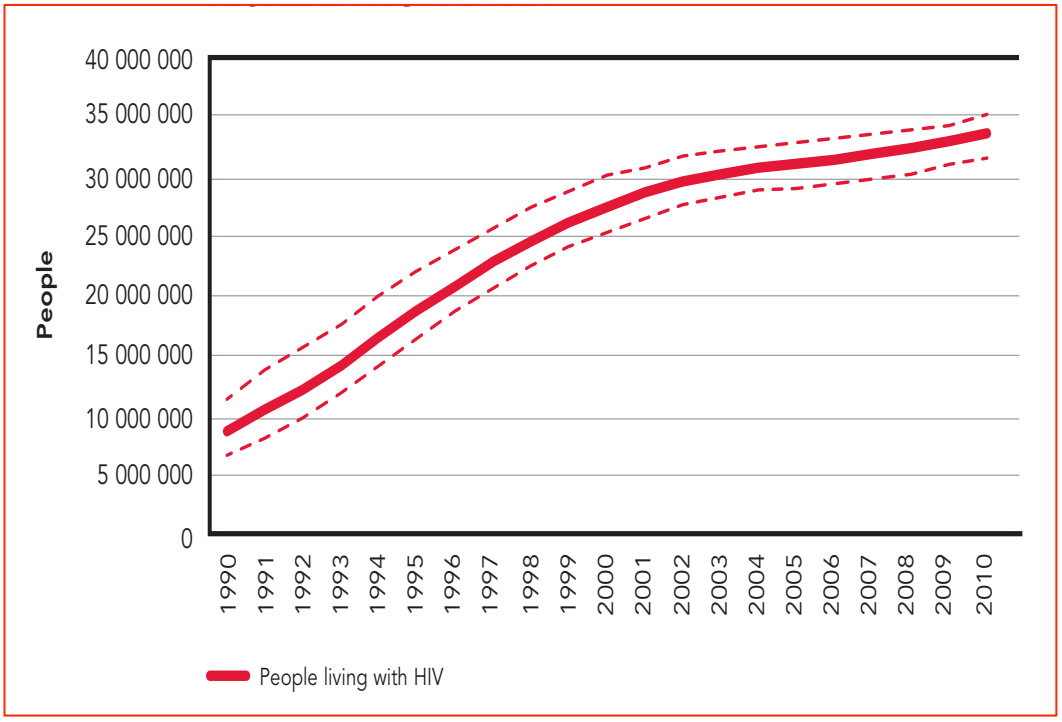
HIV has been a significant description of the past three decades creating a public health crisis that is ranked one of the most distressing microbial scourges in human history (Fauci, 2008). The dynamism of HIV complicates the programming process; as efforts were all gathered towards reducing infection among the youths below 30 who were majorly affected in 1990s, the epidemic changed to adults between 30-49, and before they could gather momentum, the issue of discordant couples arose. These and many other contemporary issues have tired the fight against HIV. However, with the presence of interventions

including prevention, care, treatment and social support, a lot has been done to alleviate the effects of the HIV epidemic, hence giving courage to the people (Montaner JS, 2006), (UNAIDS, 2010), (Viviane D. Lima, 2008). Additionally, biomedical research efforts directed at HIV and AIDS have resulted in some awesome successes that have given a ray of hope to both the partners involved in the fight against HIV and AIDS and the general population (World Health Organisation, 2007).

1.1.2. GLOBAL HIV AND AIDS SITUATION

As opposed to several other diseases mainly suffered by the poor, subjugated and marginalized regions, the AIDS epidemic is a Global challenge terrifying human health and development (David N. Burns, 2010), (Oguntibeju OO, 2008). With a very short history of just three decades, AIDS has caused unmatched damage to the World (Cohen, 1998). It is estimated that by the end of 2010, there were 34 million people [31.6 million–35.2 million] living with HIV worldwide, compared to 26.2 million [24.6 million–27.8 million] in 1999, which is about 27.5% increase (UNAIDS, 2011).

Figure1. 1. Shows Global numbers of people living with HIV by year



Source: UNAIDS, 2011

Though the global proportion of women living with HIV is at 50%, in Sub Saharan Africa and the Caribbean there are more women living with HIV than men, 59% and 53% respectively (UNAIDS, 2010), (UNAIDS, 2011); this coupled with the growing number of discordant couples puts the prevention efforts at task to ensure innovative interventions that especially promote protection of women from HIV infection.

1.1.3. IMPACT OF HIV ON SUB-SAHARAN AFRICA

Despite significant breakthroughs in prevention, treatment and care, the HIV epidemic continues to persist especially in sub-Saharan Africa. When we talk of

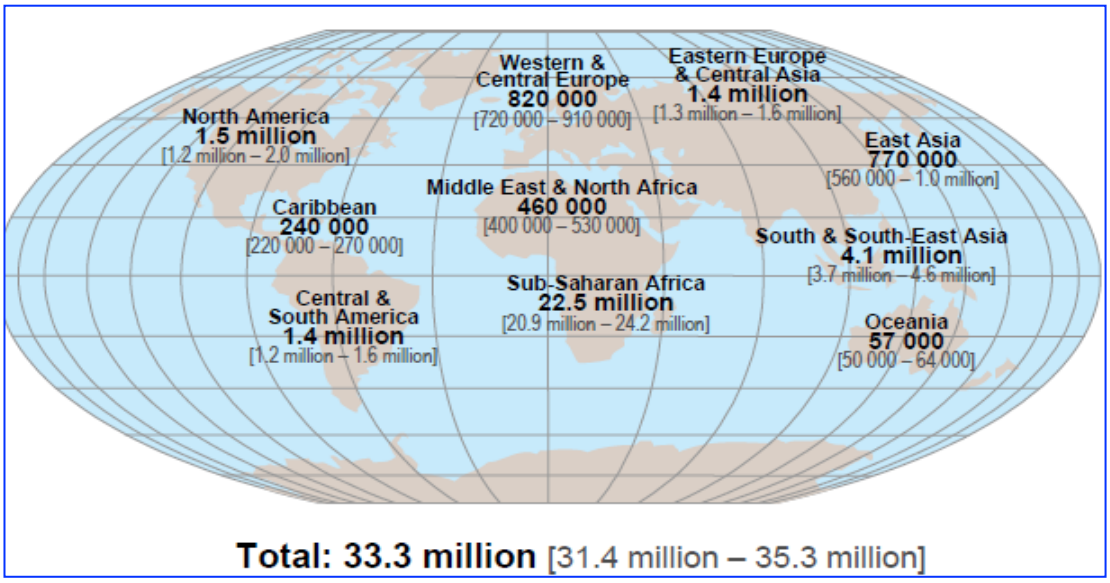
HIV, Sub Saharan Africa takes precedence, as it is home to over 70% of the total World HIV-positive population (UNAIDS, 2010). HIV therefore heavily affects Sub-Saharan Africa than any other region of the World. In 2009 around 1.3 million people died from AIDS in this region and 1.8 million people became infected with HIV *(See figure and table below)*.

Table 1.1. Showing HIV statistics for Sub Saharan Africa, 2001, 2009

Year	Adults and children living with HIV	Adults and children newly infected with HIV	Adult prevalence (%)	Adults and Children related deaths	Young people (15-24) living prevalence (%)	
					Females	Males
2010	22.9 million	1.9 million	5.0	1.2 million	1.4	3.3
	(21.6-24.1 million)	1.7-2.1 million	(4.7-5.2)	(1.1-1.4 million)	(1.1-1.8)	(1.1-1.8)
2001	20.5 million	2.2 million	5.9	1.4 million	2.0	5.2
	(19.1-22.2 million)	(2.1-2.4 million)	(5.6-6.4)	(1.3-1.6 million)	(1.6-2.7)	(4.3-6.8)

Source: UNAIDS World AIDS Day, 2011 report

Figure 1.2. : Showing Regional HIV prevalence across the continent



Source: UNAIDS, 2010

The figure above gives a vivid picture of global HIV distribution and it can be clearly seen that Sub Saharan Africa is highly affected as compared to other regions of the world.

1.1.4. HIV IN UGANDA

1.1.4.1. HIV trends in Uganda

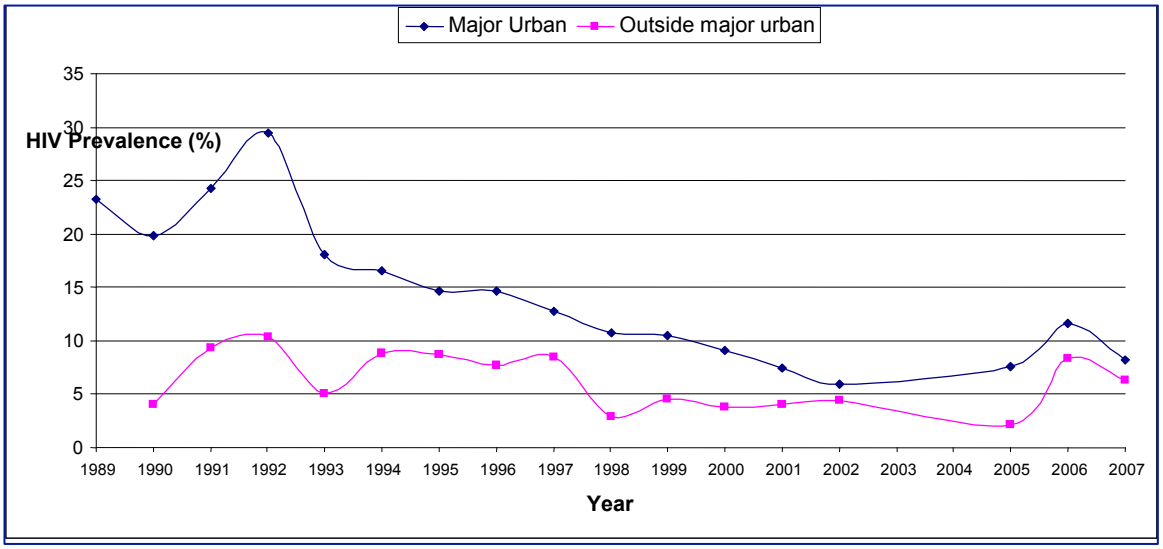
Uganda is one of the first countries in sub-Saharan Africa to experience the spread of the HIV epidemic. Since the first AIDS case in Uganda was diagnosed in 1982 in Rakai district on the shores of Lake Victoria, a fishing village called Kasensero, the disease spread to epidemic proportions, reaching all parts of the country. A national sero-survey undertaken in 1987/88 suggested a national infection rate of 6-8 percent (Government of Uganda, 2004). This increased rapidly reaching its peak in the early 1990s.

Available data shows that by 1990, HIV prevalence in major urban areas was as high as 31% among pregnant women attending antenatal services (Uganda Bureau of Statics , 1991). After a decade of increasing numbers of new cases, the spread of the epidemic began to decrease in the early 1990s. In mid-1991, an estimated 21% of sexually active women (from standard ante-natal clinic sentinel surveillance, not necessarily nationally representative but still the international standard for comparisons) were HIV-infected, the highest being in urban areas where 24-36% of antenatal mothers at main hospitals tested positive. By 1993, the

national estimates of cases of HIV infection had doubled (Ministry of Health , 1993).

After the first phase, 1992-2000 (second phase) saw HIV prevalence decline both in rural and urban areas. The antenatal clinics started to register fewer cases of HIV cases among the pregnant women and HIV Counselling and Testing (HCT) clients. Equally, the population-based cohorts conducted in the districts of Rakai and Masaka started to reduction in HIV incidence (see figure below)

Figure 1.3. Shows HIV prevalence trends in Uganda (1989-2007)



Source: MoH (2009). The HIV/AIDS epidemiological surveillance report

HIV incidence and prevalence stabilisation have characterised the third phase of the HIV epidemic in Uganda (2000 to date) ranging from 6-7%. There are however subjective signs of rising prevalence from the national surveillance system, substantiated by data from longitudinal cohort studies (see table below).

Table 1.2: Showing status of HIV in Uganda at 3 time points; 2001, 2007 & 2009

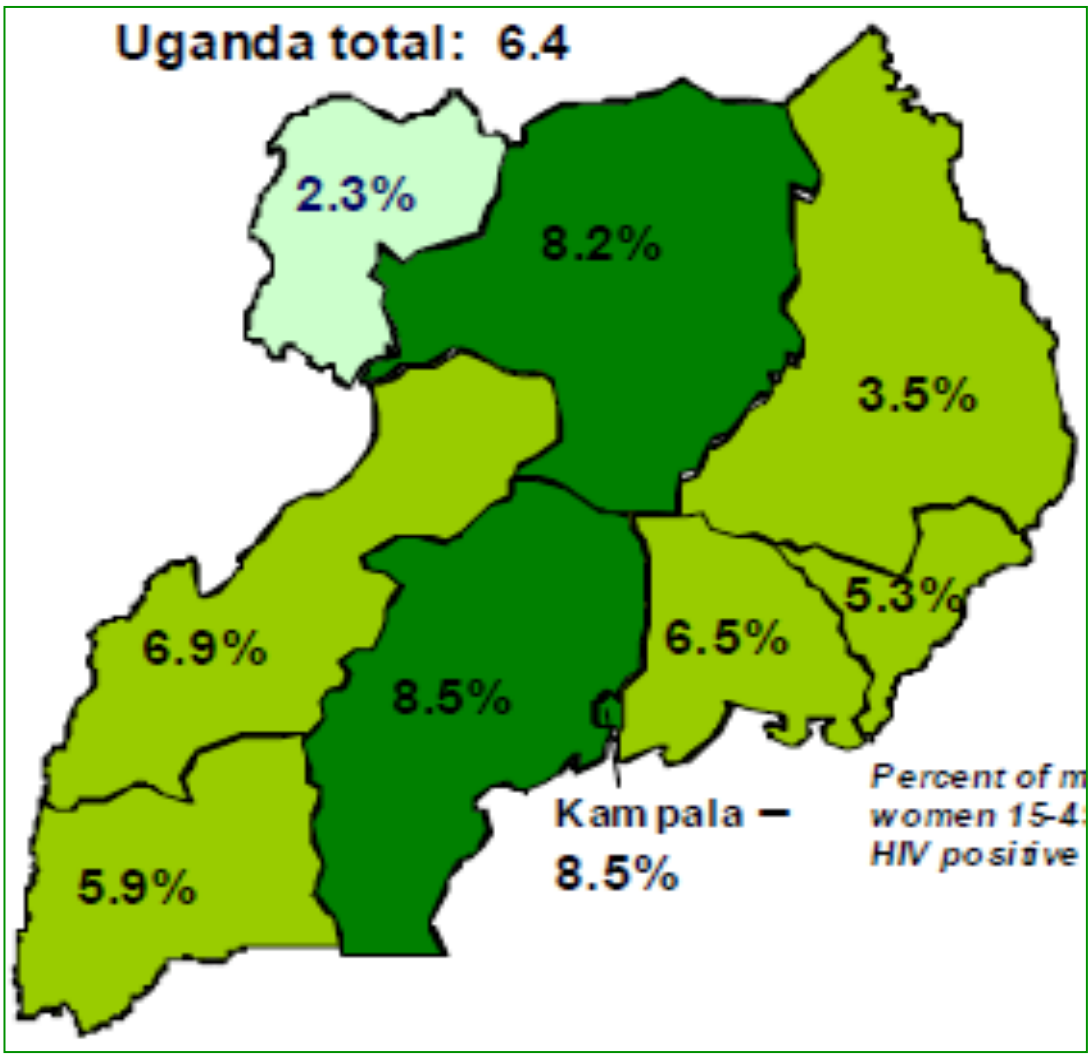
Indicator	Population	December 2001	December 2007	December 2009
Number of people living with HIV	***Total***	1,033,725	1,140,739	1,192,372
	Adults	880,978	991,191	1,042,711
	Women	516,723	577,562	606,154
	Children < 15 yrs	152,747	149,549	149,661
AIDS Death	Total	77,780	67,274	64,016
	Adults	58,658	50,718	48,296
	Women	33,243	28,732	27,422
	Children < 15 yrs	19,122	16,556	15,721

Source: MoH Estimation and Projections Group, 2010

1.1.4.2. Epidemiology of HIV in Uganda

HIV/AIDS is a heterogeneous epidemic more especially among the married persons involving different populations, location, age, and sex. By location, Central and Kampala have the highest prevalence of 8.5% while Western Nile has the lowest with just 2.3%. HIV prevalence is higher among urban residents (>10) compared to 6% among rural residents (Ministry Of Health and ORC Macro, 2006).

Figure1. 4. Shows Uganda's geographical HIV distribution



source: Ministry of Health-Uganda and ORC Macro, 2006

By population, from the "Know Your Epidemic (KYE) and Know Your Response (KYR) Modes of Transmission" study conducted in 2008, it was revealed that 43% of new infections are among people in discordant monogamous relationships, while people reporting multiple partnerships contributed to 46% of the new infections (GoU/UNAIDS/UAC, 2008). (See table below)

Table 1.3: Showing modes of HIV transmission in Uganda, 2008

Modes of transmission	# With risk behaviuours	% With risk behaviuours	Incidence per 100,000	Percentage incidence
Injecting drug users	994	0.0	258	0.28
Partners of IDUs	252	0.0	10	0.01
Sex workers	32,652	0.3	833	0.91
Clients -sex workers	189,381	1.5	7,172	7.83
Partners of clients	108,676	0.8	1,660	1.81
MSM	3,976	0.0	559	0.61
Female partners - MSM	1,569	0.0	92	0.10
Multiple partners	1,808,919	013.9	21,722	23.73
Partners of MP	1,417,881	10.9	19,925	21.76
Mutual Monogamous heterosexual sex	6,022,317	46.1	39,261	42.89
No recent risk	3,474,169	26.6	0	0.00
Medical injections	13,060,787	100	54	0.06
Blood transfusion	134,053	1.0	0	0.00

Source: Modes of Transmission Study-Uganda (2008)

Following HIV trends in Uganda, we realize that the epidemic is very dynamic. The most-at-risk group changed from young people to adults which has undermined the previously praised prevention intervention especially abstinence. Though faithfulness has been praised too as a wonderful intervention, the growing number of discordant couples seems to disapprove this living theory.

1.1.5. IMPEDIMENTS IN HIV PREVENTION IN THE ERA OF HIV DISCORDANCE

Though Uganda had proved that a timely, dependable and multi-Sectoral control strategy had the capacity to control prevalence and the incidence of HIV infection,

the fight against HIV poses enormous challenges, generating fears that success may be too difficult to achieve if a vaccine or cure is not availed. With the efforts put into prevention, the incidence rate is expected to have reduced more than half of the 2001 rates. However, in 2009 the incidence only decreased by 400,000 persons compared with the 2001 data; . i.e. from 2.2 million to 1.8 million (Ministry of Health, 2010).

From the MOT study, it was clearly indicated that HIV discordance and multiple relations drive the epidemic in Uganda compromising the previously registered success in managing incidence and prevalence of HIV in the country (GoU/UNAIDS/UAC, 2008) (Uganda AIDS Commision, 2008). Though multiple partners top the list too on main drivers on the epidemic in Uganda, it is important to note that a close relationship exists between multiple partnerships and HIV Discordance, backed up by a social belief envisaging that multiple partnerships is the main reason for the high rates of HIV discordance among married and cohobating couples in Uganda. It is also important to note that for prevention purposes, multiple partnerships is not an easily identifiable group that can be targeted with direct prevention service; these are spread over other groups of people in the communities. As such, discordant couples ideally become the number one point of focus for prevention among the adult population in Uganda.

Being that prevention is crucial and has been prioritized for discordant couples, the researcher was motivated to contribute to specific knowledge on its bearing on

the marital stability among sexually active discordant couples living in Uganda by studying the "Influence of HIV Biomedical prevention strategies on marital stability of sexual active discordant couples in Uganda".

1.2. PART TWO-HIV DISCORDANCE AND DISCORDANT COUPLES

1.2.1. INTRODUCTION

HIV-serodiscordance is a state where one sexual partner is HIV positive and the other HIV negative. There are many people living in such sexual relationships creating discordant couples; which are also referred to as sero-divergent or serodiscordant couples. Data available for Sub Saharan Africa shows that approximately 1 in every 2 people living with HIV have an HIV negative partner.

The growing HIV infection in discordant couples is a significant contributor to the high prevalence in sub-Saharan Africa (Guthriel BL, 2007) (Lurie, 2003), hence the need for a proper understanding of the prevention package specially designed for this high-risk group. In Uganda, the most recent estimates suggest that 42.9% of all new HIV cases occur among monogamous heterosexual couples (United Nations General Assembly special Session, 2010). Discordant couples are therefore a crucial population to target when focusing on HIV prevention efforts. However, the strategies targeting discordant couples should offer both prevention benefits and also contribute to the stability of their marriages since they have chosen not to separate amidst the assumed risk of HIV transmission.

1.2.2. PROPOSED CAUSES OF HIV DISCORDANCE

Though unfaithfulness is the most socially assumed reason for the growing number of HIV discordant couples, it has no medical backup as to why the other partner continues to remain HIV negative for a long time even with regular exposure through unprotected sex with the already confirmed HIV positive partner. The social belief, can only give an explanation for the entry point into the discordance situation among the couples, since there is no justification for one partner turning HIV positive. If a couple tested HIV negative at the time of marriage, it will be obvious that there was extra-marital sex, more especially where the HIV positive partner in point did not have any other form of exposure like infected blood or a rape case.

The scientific puzzle has however been on why the negative partners continue testing negative with continued exposure. Following clinical trials, there are a number of propounded factors from the medical point of view.

The most obvious has been the difference in biological structures of females and males, where the females have a vagina that has a larger surface with more body fluids hence making them more prone to HIV infection as compared to the male counterparts (Carpenter, 1999). Male circumcision is another reason for the non-transition of HIV among couples, a number of clinical trials have proved that a circumcised man is less likely to get infected compared to the uncircumcised one; circumcision provides up to 60% protection against HIV infection among men

(R.C. Baile, 2008). Researchers have also established that some HIV strains are more virulent than others. Risk of transmission depends on the strength of the strain; weak strains rarely transmit HI-virus, hence the rise in number of discordant couples. Other studies have however proposed the use of condoms, and low viral-load due to use of Highly Active Antiretroviral Treatment (HAART) as main contributing factors for the continued non infection within the couples (HIV Prevention Trials Network, 2011) (Davis-Beaty W. S., 2007).

However, Bienzle D and his friends suggested that no single reason can explain non-transmission among discordant couples, hence the need to understand all the proposed factors and treat them with equal importance. To this team, a combination of viral characteristics, cellular immunity, and coreceptor integrity play a big role in non-transmission. Additionally, Wilson Johwa in his story "Mystery of Discordance" mentioned almost similar factors and these included; HI-virus type, genetics, the extent to which the infection has progressed in the HIV-positive partner, presence of sexually-transmitted infections and circumcision (Johwa, 2006). Johwa like Bienzle, emphasized the appreciation of those factors in combination not as stand alone factors for proper programming.

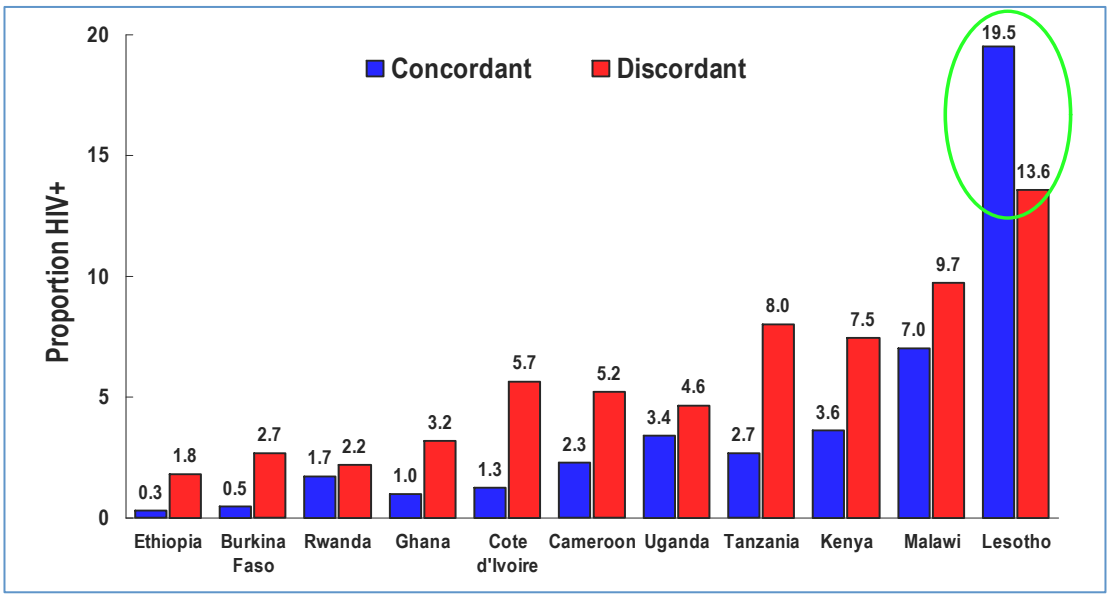
Understanding the causes of discordance is very crucial in building a knowledge foundation for the protection of the HIV negative partner from HIV infection. The factors mentioned above have been thoroughly researched and tried in many studies to establish their effectiveness in the prevention of HIV spread within the

couples. Currently, a number of biomedical interventions have been designed based on proven results from the studies conducted aiming at HIV prevention at both couple and population levels.

1.2.3. DISCORDANT COUPLES PREVALENCE AND HIV INFECTION RISK

Data available shows that the majority of the discordant couples live in sub-Saharan Africa just as the case with HIV prevalence in general population. Although there are country variations, available records show that up to two thirds of couples in Sub Saharan Africa are discordant; a group that currently accounts for the increasing number of HIV infections among the adult population. Lingappa J.R et.al found that 48% of the people living with HIV in Southern and East Africa had an HIV negative partner (Lingappa J.R, 2008). Overall, two thirds of the people living with HIV in Sub Saharan Africa are in discordant relationships and nearly all countries are affected by the HIV discordance phenomenon (Mishra, 2009; Khan, 2007) (see figure below for data from selected African counties)

Figure 1.5. Shows prevalence of HIV Discordant Couples in selected Countries



Source: Vinod Mishra, 2009.

From the figure above, we realize that HIV discordance is highly prevalent in Sub Saharan countries no matter the HIV prevalence in the general population. For example, though Ethiopia has a very low prevalence, HIV discordance is about 80% and for Lesotho, though there are more concordant couples than discordant couples, the number of discordant couples still remains high.

Uganda specific date a shows that HIV discordance is a big issue on the HIV agenda. The data from the Rakai Health Sciences Program showed that HIV sero-discordance among couples in Uganda is high (Serwadda et al., 1995). This has been substantiated by data collected from Uganda by a team of researchers who conducted a study in East Africa and found out that up to 40% of the people living with HIV in Uganda live in discordant relationship (Bunnell R, 2008).

Additionally, Ministry of Health added to the evidence showing that more than half of the cohabiting couples are HIV discordant (Ministry Of Health and ORC Macro, 2006).

Important to note is that, the higher the rate of discordance among couples, the higher the risk of sero-conversion especially where no intervention are put in place to combat the infections (Lampinen TM, 2004). As such, a combination of HIV biomedical prevention strategies has been developed especially for those couples that decide to continue living together in sexually active relationships after the discovery of discordance. These mainly include: condom use, good management of STIs, safe male circumcision and highly active antiretroviral therapy/treatment.

1.2.4. HIV BIOMEDICAL PROVEN PREVENTION STRATEGIES FOR SEXUALLY ACTIVE DISCORDANT COUPLES.

As said earlier, discordant couples are the main source of new infections in Uganda just like it is else where in the countries with a mature, generalized epidemic. As such, there are interventions that have been designed for discordant couples that choose not to separate nor abstain. So far there are four main strategies aimed at reducing the risks of sero conversion among these couples: Male Circumcision, use of Highly Active Antiretroviral Treatment (HAART), Consistent correct condom use and management of sexually transmitted infections.

1.2.4.1. Safe Male Circumcision

Although since time memorial, circumcision has caused more controversy than any other surgical procedure in history, the previous claimed benefits of circumcision like curing gout, masturbation, insanity and even epilepsy, were highly illogical. Today male circumcision is seen to be a preventive measure to HIV infection in men; the clinical trials conducted in different parts of the world have shed light on real medical benefits of circumcision.

Circumcision is one of the new HIV biomedical interventions that have certainly offered wonderful hope to the HIV prevention efforts. A number of scientific trials have shown that safe male circumcision reduces a man's risk of becoming HIV infected by up to 60 percent during heterosexual intercourse. These good results enticed World Health Organisations (WHO) and the Joint United Nations Programme on HIV/AIDS (UNAIDS) to recommend circumcision as an important element on the list of HIV biomedical prevention strategies around the world (UNAIDS , 2007). This decision was backed up by a number of studies and reviews as seen below.

A review by Robert Szabo found that over 40 studies showed that male circumcision offers a significant protection against HIV infection (Robert Szabo, 2000); this information gives a clear ray of hope in the fight against HIV more especially in the Sub Saharan Africa where heterosexual intercourse is the main route of HIV infection.

Additionally, from a study conducted on 3,274 uncircumcised men, aged between 18 and 24 years in South Africa, there were only 20 HIV infections (0.85 per 100 person-years) in the intervention group as compared to 49 HIV infections (2.1 per 100 person-years) in the control group. Accumulatively, this provides approximately 60% risk reduction of HIV infection among the circumcised men (Auvert B, 2005) making it an awesome intervention in the fight against HIV especially among discordant couples with HIV negative males.

The same trial had study sites in Uganda and Kenya and the results were quite similar. In Uganda, the study was conducted among 4,996 men of 15 to 49 years of age and found approximately 51% risk reduction in HIV infection among the circumcised men while in Kenya where the study was conducted among 2,784 men of 18 to 24 years of age, the HIV infection risk reduction was calculated at approximately 59% (Ronald H Gray, 2007) (Robert C Bailey, 2007). All the three studies mentioned above were stopped earlier than their set deadlines because the results were so convincing that the team saw no need of continuing with the research. It was also unethical to delay the circumcision of the men in the control group since that would turn into a deliberate exposure of the uncircumcised men to HIV infection besides the good results from the studies. It is important to note that protection of people from any kind of HIV risk factors is very crucial in the prevention of HIV infections.

To ascertain the effectiveness of circumcision as a long life HIV intervention, a follow up study was conducted in Kisumu for 42 months. This study enrolled participants from among the people involved in the ended study. By month 42, there were still 1,545 men (55%) of the original trial group. This number was split into intervention and control group to have a comparison analysis and determine the effectiveness of circumcision. During the follow up, five more men sero-converted among the circumcised men while seventeen among the uncircumcised sero-converted. This gave an infection rate of approximately 2.6% in circumcised men and 7.4% in uncircumcised men, pushing the protective effect up further to 70% (R.C. Baile, 2008). With these facts from the studies, there is clear evidence that circumcision plays a key role in HIV prevention especially among discordant couples where prevention is very critical.

Following the findings, mathematical models have predicted that one new HIV infection could be prevented for every 5 to 15 men who are newly circumcised. More mathematical modeling have suggested that if all men in Sub Saharan Africa were all circumcised, six (6) million new HIV infections and three (3) million death could be averted in twenty years (Helen A. Weiss, 2008).

On the other hand however, observational studies had reported an association between male circumcision and risk of HIV infection in female partners living in discordant couples. A randomized controlled trial was conducted in Rakai District among 922 uncircumcised men living with HIV, who were asymptomatic aged

15—49 years with CD4-cell counts 350 cells per μL to ascertain this association. The trial was however stopped early because of its ineffectiveness. The findings suggested that the risk of HIV transmission could even have been increased in the six weeks after circumcision due to unhealed wounds from the procedure. The results showed that, 18% of women in the intervention group and 12% of women in the control group seroconverted during the study. Cumulatively, the probability of females' HIV sero conversion at 24 months was 21.7 in the intervention group and 12% in the control group. By simple interpretation, circumcision of HIV-infected man does not reduce HIV transmission to female partners even for a longer period of over 24 months (Dr. Maria J Wawer, 2008).

Another study was conducted in Zimbabwe and Uganda for a follow up median period of 23 months to further establish the relationship that exists between male circumcision and women's risk of HIV infection. A baseline was conducted prior to the study, and this found that 74% of the women had uncircumcised primary partners, 22% of the women had circumcised men while 4% of women had partners with unknown status. At the end of the study, 210 women acquired HIV (167, 34, and 9 women whose primary partners were uncircumcised, circumcised, or of unknown circumcision status, respectively). Though the results before any adjustments showed that women with circumcised partners had a lower HIV risk than those with uncircumcised partners, the protective effect disappeared after adjustment for other risk factors. Further still, subgroup analysis suggested a non-

significant protective effect of male circumcision on HIV acquisition among Ugandan women referred from higher-risk settings (Turner AN, 2008)

Although there seems to be still need for research in the area of determining whether there will be a direct long term impact of male circumcision on women's HIV infection risk reduction, so far there is evidence that women will benefit indirectly from the scale-up of voluntary male circumcision programmes in the long-term. In the 5th annual progress report published by WHO, UNICEF and UNAIDS in collaboration with national and international partners, aimed at monitoring key components of the health sector response to the HIV epidemic, it is suggested that if male circumcision is widely practiced, it will have the potential of lowering HIV prevalence among the male population, therefore reducing the woman's risk of exposure to men infected with HIV.

Additionally, a Meta analysis done by Dr. Helen A. Weiss on 19 epidemiological analyses, from 11 study populations, on the association of male circumcision and HIV risk in women found out that male circumcision would provide long-term indirect protection to women by reducing the risk of heterosexual men becoming HIV infected. In this review, it was calculated that in the long-term, mass VSMC programmes could reduce the incidence of transmission from males to females by 46 percent (World Health Organisation , 2011) (Dr. Helen A Weiss, 2009).

World Health Organisation conducted expert consultations with representatives of civil society, government and scientists on the need and viability of massive roll out of voluntary safe male circumcision in 2007. Results announced were positive; the experts however advised that, though VSMC was recognized as an efficacious intervention for HIV prevention, it would be only recognized as an additional, important strategy for the prevention of heterosexually acquired HIV infection in men not to replace any of the known preventive interventions" (World Health Organisation, 2007).

1.2.4.2. Highly Active Retroviral Therapy

Treatment for purposes of prevention, recently polarized as 'Treatment as prevention (TasP)' is a term being used increasingly to describe methods of HIV prevention that use highly active antiretroviral treatment (HAART) to reduce the chances of HIV infection. Clinically, HAART has proved to decrease the amount of virus in a person's bodily fluids known as viral load, hence reducing the likelihood of passing over the virus to others. In the past, antiretroviral treatment has been used in many ways to prevent HIV transmission giving a strong backing to the popularization of TasP.

In Prevention of Mother To Child Transmission (PMTCT), ARVs are administered to the HIV positive pregnant women to reduce the chances of infecting their babies. Studies have showed that without any preventive intervention, the babies would have up to 45% risk of HIV infection as compared

to less than 2% where mothers are enrolled on ARVs and adherence observed (World Health Organisation , 2007).

Post Exposure Prophylaxis (PEP) is another strategy that uses ARVs for prevention purposes; this uses anti-retroviral drugs after an actual or potential exposure to HIV (Korner H, 2006). Initially, PEP targeted occupational exposure to HIV especially the medical personal handling PLWHA; however, this was later extended to exposed groups like rape survivors. PEP is a medical regimen where the patients are prescribed either a 2-drug or a 3-drug combination (recommended) for 28 days and as soon as possible after an HIV exposure. The time factor for initiation of PEP is crucial, and most guidelines recommend initiation no later than 72 hours after exposure to HIV. However, no evidence in humans indicates that treatment started after 48 hours is protective enough (Abraham M. Siika, 2009).

Even though some stress the community effectiveness of PEP, others show high risks where levels of adherence to medical regimens are strikingly low. In a recent study of PEP for child rape survivors in South Africa, many did not adhere to the programme and its follow up procedures, showing a 64.5% drop out rate for the first three weeks of the programme, though slightly lower than other studies undertaken in Malawi, Kenya and Uganda, which had a mean adherence rate of 55%. Additionally advocates of PEP for discordant couples have not been successful as there is little data and support for the actual effectiveness of the

strategy. Data supporting the efficacy of PEP come largely from a small number of older studies and case reports and studies on mother to child transmission. Research has so far been limited because randomized control trials would be unethical and existing evidence is based on small sample sizes (Korner H, 2006), (William B, 2011), (Lima VD, 2008).

Another biomedical intervention related to the use of HAART is Pre-Exposure Prophylaxis (PrEP). This has been seen as an additional preventive tool to reduce transmission among high-risk individuals especially discordant couples (Centre for Disease Control , 2010). PrEP refers to HIV-negative individuals initiating ART before or during periods of HIV exposure in an attempt to prevent infection; daily antiretroviral medication is administered to the HIV negative person before so as to lower his/her chances of sero-converting in cases of HIV exposure. PrEP's effectiveness has so far been proven among the gay discordant couples and many trials trying to establish its effectiveness among heterosexual couples are underway in Uganda, Thailand and Botswana (Centre for Disease Control , 2011).

There are a number of studies that have been conducted on the infectiousness of the HIV positive partners enrolled on ARVs, which have produced wonderful results. The data available shows that HAART controls virus replication, which results in reduced viral load making the PLWHA less infectious (Centre for disease Control and Prevention , 2009) (Castilla J, 2005) (Reynolds S, 2009), (Sullivan P K. K., Febuary 8-112009), (Graich RM, 2009) (David N. Burns, 2010; Oguntibeju OO, 2008). A study conducted in Rwanda on the impact of treatment

on rates of HIV-1 transmission among discordant couples found that HAART played a key role in reducing HIV infections. Out of the 42 sero-conversions, only 2 were among partners of ART clients, giving a percentage of 5% risk of transmission. (Kayitenkore.K, 2008), (Sullivan P K. K., 8-11 February, 2009).

Taiwan adopted a policy that allowed free access to HAART in 1997, and in 2002, a study was conducted to establish its impact on the HIV transmission rates. The findings show that after the introduction of the policy, the transmission rates decreased by 53%, which is said to have been the main contributor to the current low prevalence in the country (Fang C, 2004). A study conducted in British Colombia also showed the importance of HAART in reduction of new infections. There was a drop in the incidence rate by 50% between 1996 and 1999. The study also showed that the drop continued and HAART gained confidence in the management of the country's prevention agenda (Julio Montaner, 2011). Additionally, from the study conducted in Francisco on the relationship between HAART and community viral load, it was established that increased uptake and coverage of HAART resulted in a low incidence at population level (Moupali Das-Douglas, 2010). All the above studies were crowned up by the amazing findings from the HPTN 052 study trial which concluded that HAART could be a powerful tool in ending HIV spread among sexually active discordant relationships (Myron Cohen, 2011). Considering these and many other studies, there is evidence for the usefulness of Treatment as Prevention.

1.2.4.3. Consistent Correct Condom Use

Condoms have a history that can be traced way back to the 15th century; this means people have known condoms and their effectiveness in prevention of sexually transmitted Infections and unwanted pregnancies for centuries. However, they were not very popular especially in poor countries not until the last 30 years. As research established that HIV was a sexually transmitted infection, condoms were straightaway introduced as a preventive measure in the fight against HIV spread.

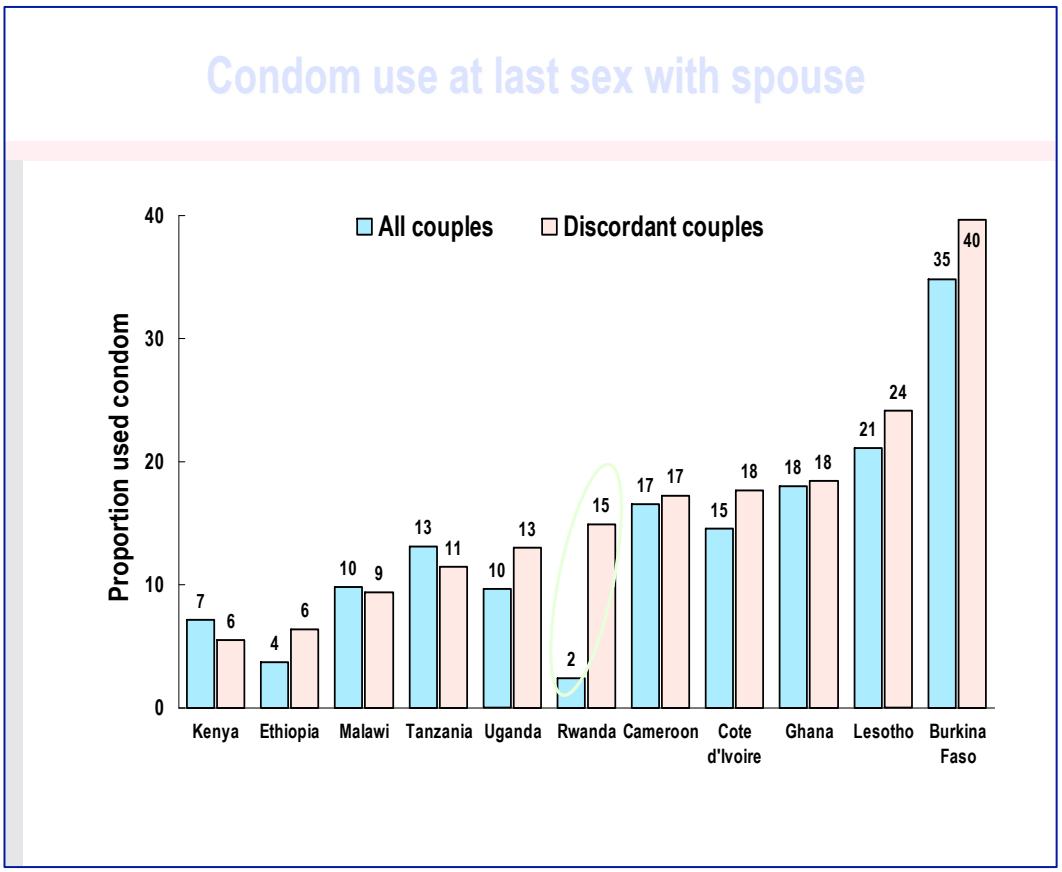
Taking Uganda as an example, before the introduction of the ABC package, the prevalence shoot up to 30% among pregnant women; but 10 years later, the prevalence decreased to 8% and now the national prevalence has stabilized at 6.5%. Studies conducted on the effectiveness of condoms have shown that if the latex condom is used correctly and consistently at every sexual intercourse, the risk of transmission will be highly cut off (Centre for Disease Control and Prevention, 2008).

Additionally, results from a study on sero-conversion among discordant couples in Europe found that out of 123 couples who reported consistent correct condom use, there was no sero-conversion while among the 122 couples where condom use was inconsistent, 12 partners sero converted (Davis-Beaty W. S., 2007).

Noteworthy is that a condom is the single HIV biomedical preventive measure for heterosexual transmissions that is widely and readily available; and if used consistently and correctly, it is believed that HIV would be no thereat to mankind. Though condoms are that good, in the past, they were only promoted among the unmarried; the question would be, is condom use a relevant preventive measure among married couples that had been targeted with being faithful messages only. Results from a study conducted in Rwanda among discordant couples shows that condom utilization can be improved with counselling; this study managed to improve condom use from 4% to 57% after 1 year of counselling and follow-up (S.Allen, 1992).

However, from the figure below, it's noted that Condom use is still very low among Discordant couples with no direct interventions.

Figure 1.6. Condom use among discordant couples of selected Sub Saharan Africa



Source: Mishra, 2009. (Mishra, 2009)

Borrowing a leaf from the Rwanda's experience, the simple interpretation of this is that to have successful condom use, couples should be involved in a number of interventions that raise their awareness on benefits of condom use. Additionally, condoms should be made available to all couples free of charge and avoid stock outs as much as possible.

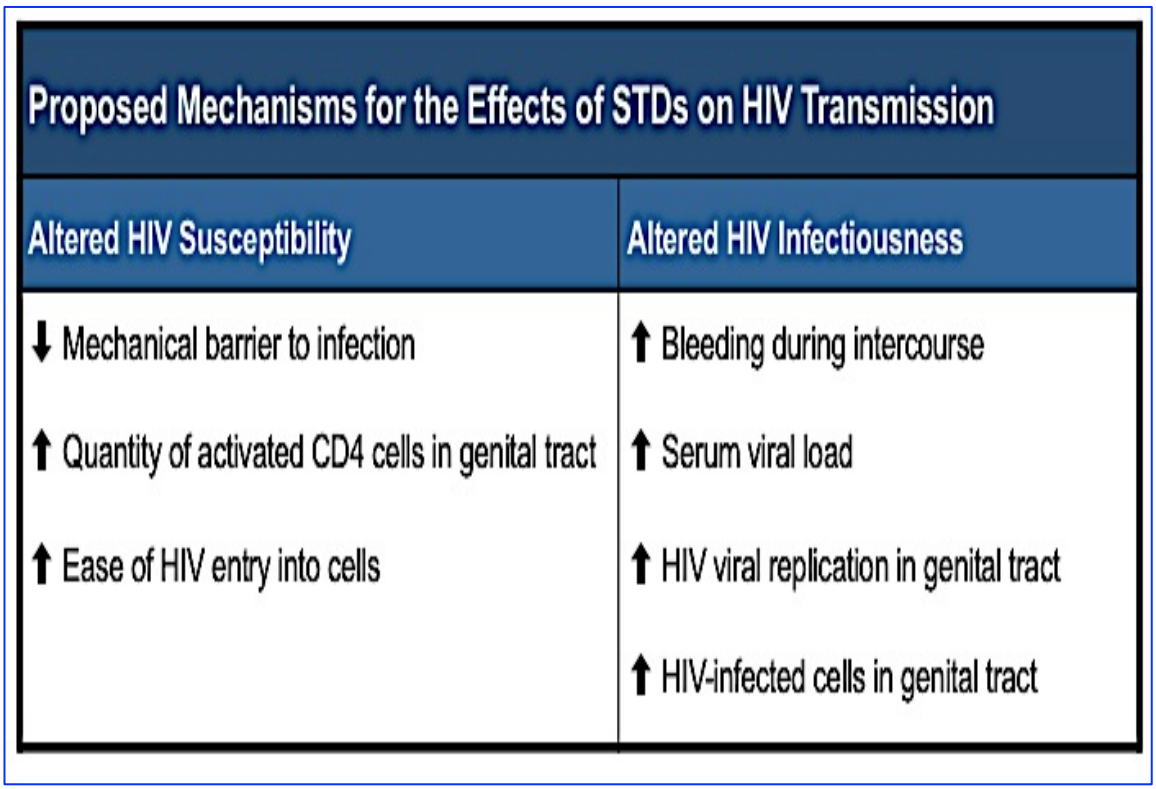
1.2.4.4. Sexuality Transmitted Infections Management

Management of both ulcerated and non-ulcerated sexually transmitted infections is key in HIV prevention especially among the sexually active discordant couples (Centre For Disease Control And Prevention , 1998). Studies have shown that the risk of sero conversion is 2-5 times higher among couples with STIs compared to those without (JN, 1992), (Cohen, 1998). STIs increase the risk of HIV transmission in two basic ways involving both the HIV negative and positive partners in the couple.

On the side of the HIV negative partner, STIs increase susceptibility to infection more especially through ulceration, which result into breaks in the genital tract lining hence creating a gateway for HIV. Additionally, the skin tenderness caused by the ulcers or non-ulcerative STDs escalate concentration of cells in genital secretions that can serve as targets for HIV (Anderson, 2007).

While on the side of HIV positive partners, STIs increase the level of infectiousness of the HIV positive partners, increasing the risk of passing over the H-Virus to the partner. Available reports show that people infected with both HIV and STIs do shed HIV in their genital secretions. It is said that men who are infected with both gonorrhea and HIV are more than twice as likely to have HIV in their genital secretions than those who are infected only with HIV. The higher the concentration of HIV on semen or genital fluids, the higher the chances of transmission

Figure 1.7. STI prevention and HIV risk reduction relationship



Source: HIV web Study, Case4 Discussion: Prevention for Positives

Figure 1.7 illustrates how STIs increase HIV transmission infection risks. As said above, the inflammatory and genital ulcer STIs influence HIV infection through mechanical and immune-mediated mechanisms. The STIs break down the mechanical barrier to infections in the HIV negative person in addition to recruiting activated CD4 cells to the genital tract's surface, increasing the pool of cells susceptible to HIV infection. While in the HIV positive people, the STI may appear like eroded genital ulcer making it easy for it to bleed during.

It is paramount to screen and treat STIs as much as possible as part of the prevention package for sexually active discordant couples. If the marriages are not

made safe, the discordant couples' sex life and partner relationships will be highly compromised.

1.2.5. FACTORS INFLUENCING MARITAL STABILITY AMONG DISCORDANT COUPLES

Little has been studied about marital stability among discordant couples in Uganda and the world over. From the search made, only two relevant studies were found; one was conducted in Uganda and the other in Thailand.

The one conducted in Northern Thailand involved 6 divorced couples and 13 stable discordant couples and five issues were documented as the main factors influencing the decisions of discordant couples for or against their marital stability: Marriage duration, where those that had lived together for a long period tended to decide to continue with their marriage amidst the risk of HIV infection. Number of children was also a factor identified as being key in influencing the discordant couples' decision to stay together. For women especially, economic constraints played an important role in their marital decisions. The other two were the family culture that protects marriages no matter the challenges and fear of stigmatization by community members where the couples lived (A.Tangmunkongvorakul, 2010).

The other study conducted in Rakai-Uganda assessed the influence of HIV status on risk of separation or divorce among couples and it found that separation was

more likely to happen among discordant couples where a woman was HIV positive as compared to couples with HIV positive men and those with concordant HIV status. This is evidence that women are more vulnerable when it comes to HIV discordance and marital stability among discordant couples (Laura Porter, 2004).

Other studies on marital stability as a general subject have proposed a number of factors that may promote marital stability or marital dissolution depending on how such factors interact with other issues surrounding a given marriage. The commonly mentioned issues include: sexual dissatisfaction, genetic factors and family background, level of empathy between the partners, infertility among women especially, level of affection, alcoholism for men who turn into perpetual drunkards, distress, occupational mobility that leads into infidelity which is a common cause for separation and hostility, (Reiss, 2010), (DeBoer, 2004), (Lykken, 1992), (Januario Nabaitu, 1994), (Sharon Y. Levey, 2004), (Waldinger Robert J, 2004). A study done in southern-west Uganda shows that in addition to the above, HIV is also a common reason for separation among couples in Uganda especially (Steven R.H.Beach, 1994).

Worthy noting is that so far, though a lot of efforts have been committed to the prevention of HIV infection among the discordant couples, no study on the influence of any or all the HIV biomedical prevention strategies on marital stability among discordant couples has been published. So far, there is an ongoing cohort study on the impact of HAART (one of the biomedical prevention

strategies) on family and partner relationships, and sexual behaviour of HIV-infected individuals, which has published its methodology and expects to have the results published in 2015 (Nuala McGrath, 2001); however, this study is not discordant couples' specific.

This information gap and many other reasons mentioned in the literature above gave a strong backing to the researcher's decision to conduct a study on the influence of HIV biomedical prevention strategies on marital stability among discordant couples in Uganda.

1.3. PART THREE-STUDY FOCUS

1.3.1 STATEMENT OF THE PROBLEM

For several years, since HIV discordance was discovered, scholars, researchers, programmers and policy makers, among others have all been puzzled over why people still stay together in discordant relationships when there is a significant risk of infecting the HIV negative partner in the couple. This has been worsened by the failure to attribute discordance to any single manageable cause. In essence, it is believed that without adopted prevention strategies, the negative partner would eventually sero convert. Data available shows that separation or abstinence would be the best option for 100% prevention of HIV infections among such couples; this has however failed since the value couples attach to relationships is more significant than the risk of sero-conversion involved.

Following a number of studies, a lot has been documented about the efficacy of biomedical HIV prevention strategies and their benefits in reducing the risk of sero conversion among sexually active discordant couples. The largest study on HAART conducted on heterosexual discordant couples showed 96% risk reduction with good adherence and early start of the HAART (Julio Montaner, 2011). Additionally, condoms have shown 80% risk reduction if used correctly and consistently (Centre for Disease Control and Prevention, 2008). As well, safe male circumcision (SMC) has resulted in a 60% risk reduction, this however only benefits couples where it is the woman infected with the HIV (Auvert B, 2005). Furthermore, it is believed that if STIs are managed well, the couple will have 2-5 fold reduction in the risk of HIV infection (Cohen, 1998).

Though a lot has been studied about the effectiveness of HIV biomedical prevention strategies and their benefits in minimizing new infections among sexually active discordant couples as seen above, little has been done in exploring the influence of any or all the HIV biomedical prevention strategies on marital stability among these sexually active discordant couples in Uganda. It was therefore strategically wise and right, to seek an in-depth understanding of how practicing of HIV prevention strategies interact with stability of marriages among sexually active discordant couples.

1.3.2 OBJECTIVES OF THE STUDY

1.3.2.1. Main Objective

The overall objective of this study was to find out the Influence of practicing HIV biomedical prevention strategies on marital stability of sexually active discordant couples in Uganda.

1.3.2.2. Specific Objectives

1. To assess the level of HIV Biomedical prevention practices among sexually active discordant couples in Uganda
2. To establish the relationship that exists between HIV biomedical prevention practices and marital stability among sexually active discordant couples in Uganda
3. To examine other factors that influence marital stability among discordant couples in Uganda

1.3.3. RESEARCH QUESTIONS

The study was guided by the following research questions

1.3.3.1. Main question

To what extent do HIV biomedical prevention practices influence marital stability among sexually active discordant couples in Uganda?

1.3.3.2. Specific questions

1. To what level do sexually active discordant couples practice the HIV biomedical prevention strategies?
2. How does practice of HIV biomedical prevention strategies impact on marital stability of sexually active discordant couples in Uganda?
3. What other factors do influence the marital stability of the sexually active discordant couples in Uganda?

1.3.4. HYPOTHESIS

1. Sexually active discordant couples with correct knowledge of the existing HIV biomedical prevention strategies do practice all the applicable strategies to protect the HIV negative partner in the couple from HIV sero-conversion.
2. Practice of HIV Biomedical prevention strategies improves both the sexual life and quality of partner relationships among sexually active discordant couples
3. Religion, number of children and love do influence discordant couples' decision to continue living together in sexually active relationships.

1.3.5. SCOPE OF THE STUDY

1.3.5.1. Content scope

The study focused on sexually active discordant couples living together for at least a period of six months after the discovery of HIV discordance. The respondents were either practicing any or all the proven HIV biomedical prevention strategies known to them to minimize infection risks. This study established the relationship that exists between HIV biomedical prevention strategies and marital stability among the discordant couples. Additionally, other factors that influence marital stability were documented too with recommendations based on discordant couples' lived experiences.

1.3.5.2. Geographical scope

The study area was Eastern Uganda in the district of greater Bugiri (comprised of Namayingo and Bugiri districts). Though there is no segregated data on the prevalence of discordant couples in this region, Bugiri district was selected based on availability of discordant couples registered at the main hospital and existence of active psychosocial support groups for the couples facilitated by National community of women living with HIV/AIDS (NACWOLA).

1.3.5.3. Population scope

The study targeted only discordant couples living together as husband and wife at the time of the interview. All the 60 respondents were aged between 20 and 49

years of age. This age bracket denotes the sexually active age group among the Ugandan population. The lower should have been 18, since it's the official age at which marriage is legally allowed; the researcher however, gave an allowance of two years to take care of the HCT and disclosure processes.

1.3.6. SIGNIFICANCE OF THE STUDY

This study is significant in a number of ways; first, the study findings will contribute to better understanding of factors that influence marital stability among sexually active discordant couples in Uganda. This study documents factors that are both related to HIV prevention strategies and others from the lived experiences of the selected couples. Doubtless, the findings will stimulate more interest among academics and policy makers to explain entry points into the adoption of HIV biomedical prevention intervention as part of the measures to strength marital stability among sexually active discordant couples in Uganda and elsewhere, more especially Sub Saharan Africa. Additionally, from this study, lessons can be learnt and used in the designing prevention packages that do not break down the marriage institutions.

The study results are also useful to other stakeholders involved in services provision targeting sexually active discordant couples, acting as a useful guide and evidence base which can be used to sensitize the community, health

facilitators and members of the public about ways of supporting the enhancement of marital stability among sexually active discordant couples.

Most importantly, the study enriches understanding of issues of marital stability among sexually active discordant couples that previous studies have not exhaustively explored. The findings of this study could stimulate more scholarly work in the area of HIV prevention and marital stability, perhaps more in-depth and analytical studies looking at various other aspects related to HIV biomedical prevention strategies.

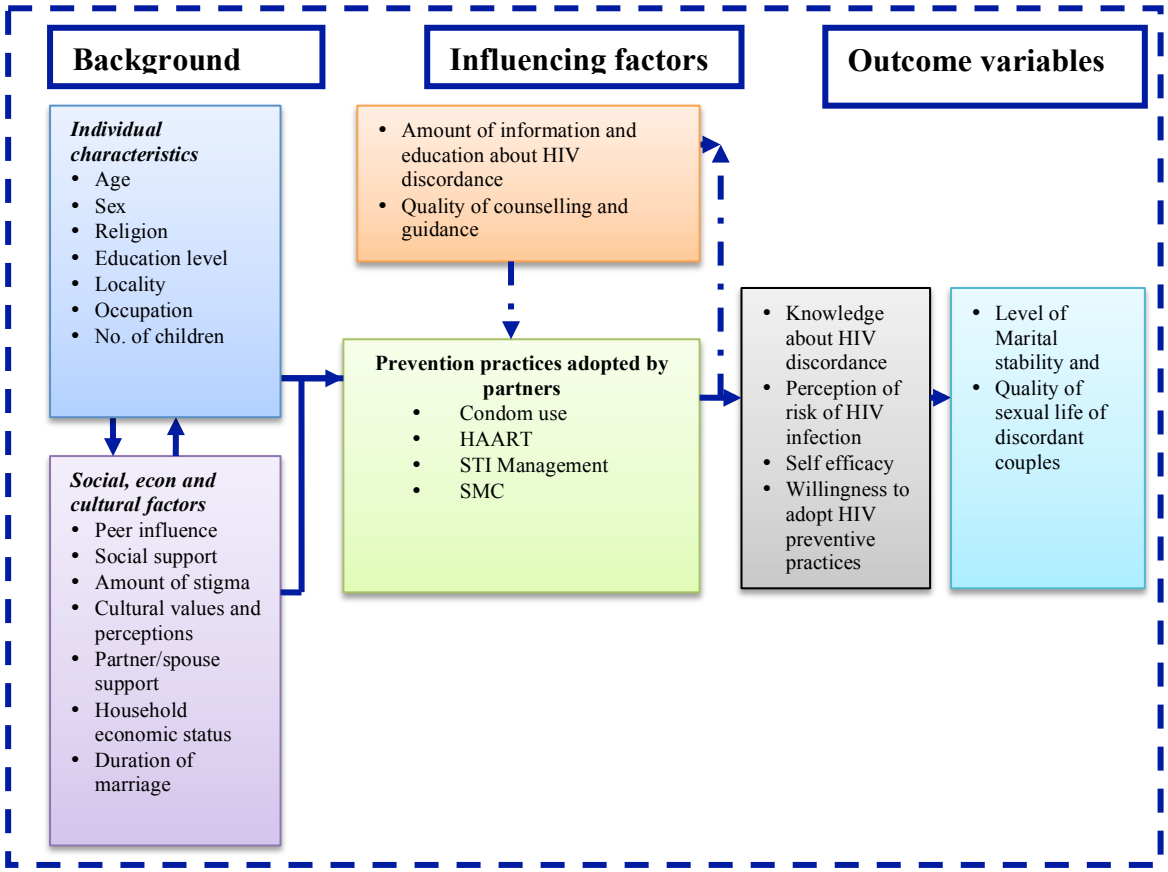
On the whole therefore, the study will make an important contribution to understanding the relationship that exists between HIV prevention measures and marital stability among sexually active discordant couples in Uganda.

1.3.7. CONCEPTUAL FRAMEWORK

Figure below presents the conceptual framework upon which this study was based. It maps out the hypothetical linkages among the biomedical HIV prevention strategies and marital stability among discordant couples. The framework shows background factors, influencing factors and other intervening variables on marital stability among sexually active discordant couples in Uganda. It is noted that background factors include household characteristics such as social, cultural, economic and demographic. These factors will combine with

other influencing factors within the nature and setup of the couples to determine the extent of marital stability. Marital stability in this study is measured by the quality of partner relationship and sex life.

Figure 1.8. Conceptual framework

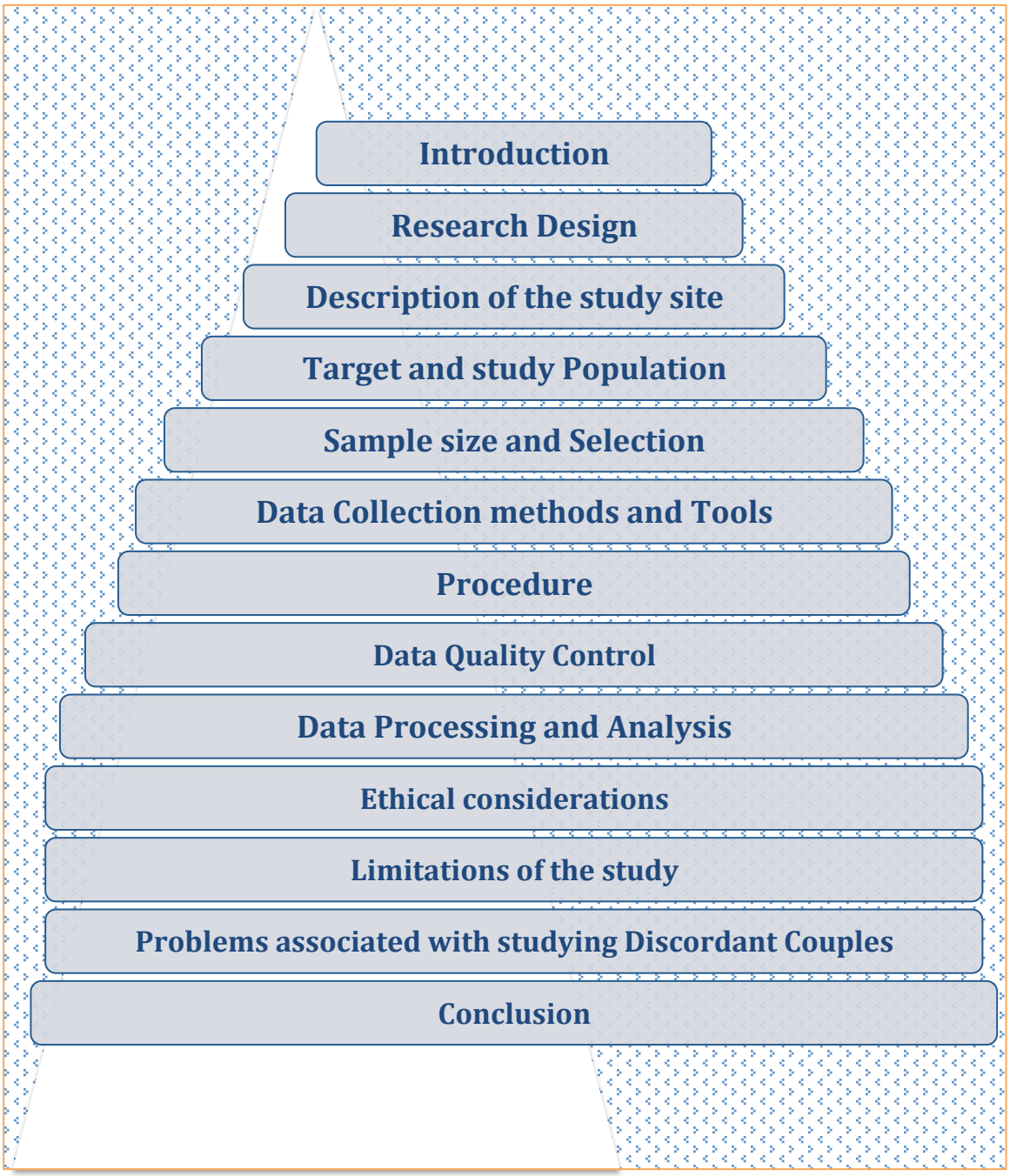


Developed by the author

CHAPTER TWO

METHODOLOGY

2.0. SYNOPSIS



2.1 INTRODUCTION

This chapter presents the methodology used to collect and analyze information for the study. First the overall research design is described, including the study area and population as well as the sampling procedures. The chapter also outlines methods of data collection selected for this study and the processes of data management and analysis.

2.2 RESEARCH DESIGN

The study employed a cross-sectional survey design to generate both descriptive and analytical data from the discordant couples mainly on what influence HIV biomedical prevention strategies have on the stability of their marriages. It was cross-sectional in sense that data was collected from the selected respondents once and for all in the interest of time and a survey study since a large number of respondents was used; 60 discordant couples participated in the study out of the 113 registered couples in Bugiri district.

Since the variables entailed in the study had to be thoroughly explained and some, measured with numerical and analyzed with statistical procedures, the study gathered both qualitative and quantitative data required to answer the research questions guiding this study. Frequencies and cross tabulates were used for

analysis of quantitative data, while thematic and content analysis was used for qualitative findings.

The use of qualitative methods was deemed appropriate for this type of study because it facilitated the gathering of narratives and experiences related to HIV prevention knowledge levels and practices among the discordant couples. Qualitative data was also collected on the couple's perceptions on the impact of prevention strategies on the stability of their marriage. It is important to note that qualitative research methods involve the collection of data that is not numerical as opposed to quantitative research, which is the process of collecting data that is of numerical values. However, once the information was collected, a scale of measure was formulated that aided the researcher in converting the data into numerical value in order to achieve ease in statistical manipulation hence easing explanation of the results.

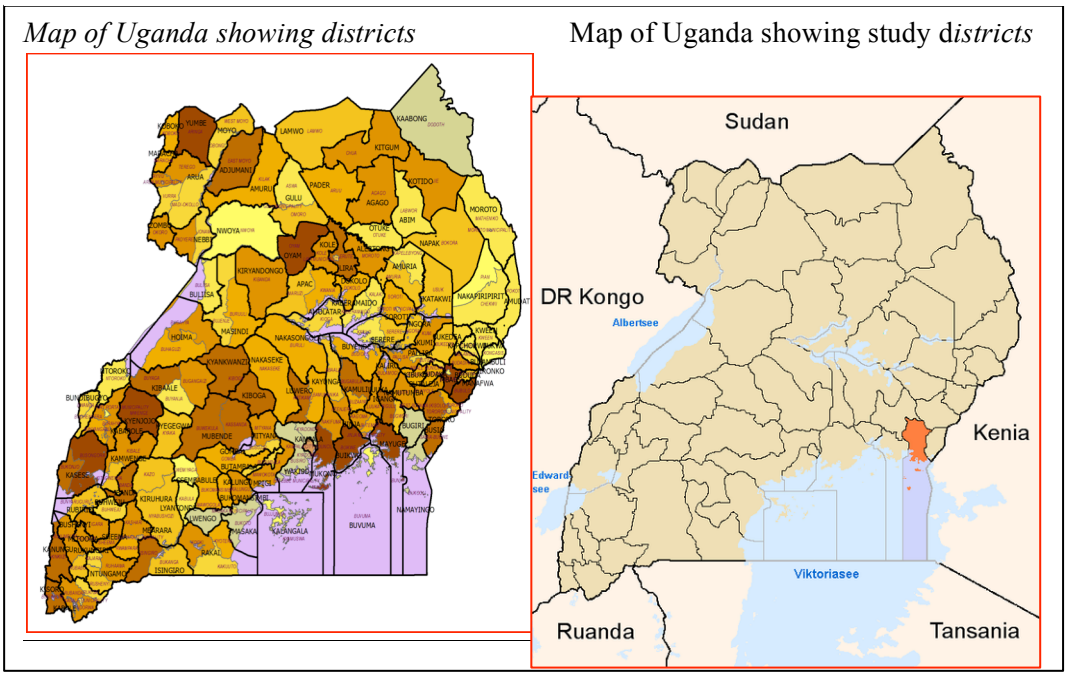
2.3. DESCRIPTION OF THE STUDY SITE

2.3.1. Uganda

Uganda is a land locked country located in East Africa, bordered by Kenya in the east, Sudan in the north, Tanzania, Rwanda in the south and Democratic Republic of Congo in the west. Uganda has a total area of 241,550.7 square kilometres (sq. km). Open water and swamps cover 41,743.2 sq km while Land area is 199,807.4 sq km out of which 99,018.4 sq km is cultivated land (UBOS, 2010). Uganda is

divided into 111 districts and one city (Ministry of Local Government , 2010). The population estimate for 2011 was 32,939,800 people with a mean age of 15 years (Uganda Bureau of Statics , 1991).

Figure 2.9. Shows Map of Uganda



Source: Uganda bureau of statics website

2.3.2. Bugiri district

This study was conducted in all the 17 sub counties of greater Bugiri (currently comprised of Bugiri and Namayingo districts)- Bugiri Town council, Buleas, Nankoma, buluguyi, Buswale, Buwunga, Buyinja, Iwenmba, Kapyanga, Muterere, Nabukalu, Mutumba, Buhemba, Namayingo Town council, Bulidha, Budhaya, and Banda. Since Namiyingo is a newly created district, cut off from the Southern part of Bugiri, the HIV services are still planned and managed centrally from

Bugiri district (Bugiri District Local GOvernment, 2009). For purposes of this study, Bugiri district refers to both Bugiri and Namayingo districts unless stated otherwise. All the information provided here, is for the greater Bugiri not the current Bugiri district.

Bugiri district lies 150 kilometers directly east of Kampala. It was formed in 1997 under the Uganda Government decentralization programme. The district has a total population of 426,522 people of which 51% are female and 49% are male (Uganda Bureau of Statitics , 2002) Some Sub Counties in the district are either made of islands or border Lake Victoria, and are inhabited by fishing communities Areas around the Lake Victoria are more densely populated. The main tribes in Bugiri district are Basoga and Basamia and the common languages spoken are Lusoga, and Samia although Lugwere, Swahili, Japadhola and Ateso are also spoken.

The district lies between 1000 and 1800 meters above sea level. The climate in Bugiri district is characterized by two hot seasons, one in January to early March and another from July to early October, and thin rain fall except for areas near the Lake that receive evenly distributed rainfall throughout the year. Away from the lake, temperatures are higher and dry spells increase in duration. Economic activities include food and cash crop cultivation, fishing in Lake Victoria and animal rearing, milling of rice and maize as well as town service industries.

The main transport route from Kenya to Uganda crosses the district at the towns of Bugiri and Naluwerere and thus these are transit towns and for many years have been a stop point for heavy trucks leading to high commercial activity including commercial sex. Drivers and their co-workers recess in towns along the highway where there are restaurants, bars, lodges and commercial sex workers (CSWs). CSW are residents of the same towns and they target the drivers as clients.The presence of fishing communities, commercial sex workers and truck drivers, predispose the community of Bugiri to higher HIV infections. Though Bugiri District is located in Eastern Uganda where HIV prevalence is rated at 5.3%, the reports from the District Health Office and implementing partners in the district show that HIV prevalence is quite higher ranging from 8.4-10% (BUNASO , 2009)

2.3.3. Reasons for choosing Bugiri district for the study

Since some communities still register low levels of disclosure, discordant couples cannot be easily identified without enough support from service providers in many areas of Uganda. The researcher chose Bugiri district for two reasons;

- **Registers;** Presence of discordant couples' register at the HIV clinic at Bugiri main hospital aided the entry point into the study. Bugiri got a chance to register the discordant couples because it is part of the catchment area for the Pre-Exposure Prophylaxis (PrEP) study conducted by The AIDS Support Organisation (TASO), Tororo, study center. This

study is trying to find out if administering ARVs to the negative partner in the discordant couple would prevent her/him from HIV infection.

- **Support groups;** Though TASO supported the district to come up with the register, no activities beyond their research have been implemented; fortunately, another NGO called National community of women living with HIV/AIDS received funding from STAR-EC and is working with psychosocial support groups bringing together a number of discordant couples. The presence of support groups was viewed as a mobilization tool for the study, hence zeroing down on Bugiri district.

2.4. TARGET AND STUDY POPULATION

A target population is defined as the population under study, the population to which the researcher wants to generalize the research findings (Talbot 1995). Whereas the target population for this study was all people infected and affected by HIV and AIDS, the study population was HIV discordant couples in Bugiri district, Eastern Uganda.

This study only included heterosexual couples .The researcher felt that if couples of the same sex were also included, there would be too many variables, which would have been too expensive for the scope of this study. The couples were deemed to be in a stable relationship if they were with the current partner for at least the last one-year. The couples ought to have lived in the discordant couple

for at least six month to be included in this study. Couples who were in recently established relationship; people who had only recently found out that they were HIV-positive; and people living with HIV who had only disclosed their HIV status to their partner recently (or who had not disclosed) were not eligible to participate in this study.

Living together was enough proof of the marriage; having formalized their relationship through traditional or religious marriage and/or a civil union was not a requirement. No HIV testing was done to confirm the HIV status of either the HIV-positive or the HIV-negative partner, since the entry point was the hospital records showing the HIV discordance among the selected couples. See below for a summary of the inclusion and exclusion criteria.

Summary of Inclusion and Exclusion criteria

The participants were enrolled into this study following the set inclusion/exclusion criteria summarized below:

2.4.1. Inclusion criteria

- Only serodiscordant heterosexual couples were invited to participate
- Either sex could be the positive partner
- Able to speak English or Lusoga/Samia (the widely spoken local languages)
- The participants must have been over the age of 20 years
- The couple had to be in a stable heterosexual relationship with the partner

- Both partners' willingness to provide voluntary informed consent

2.4.2. Exclusion Criteria

- Anyone below the age of 20 years
- Non-English, Luganda and/ or Samia speaking individuals.
- Concordant couples
- Homosexual couples
- Multiple partners (polygamous marriages)

2.5. SAMPLE SIZE AND SELECTION

2.5.1 Sample Size

Grein defined sampling as selecting some of the elements of the population so that the researchers can draw conclusion about the entire population (Grein et al, 2004). Population in research methodology is the total group of subjects that need to be assessed if the views of everyone in a particular situation are to be measured.

In this study, a total sample of 60 respondents was included in the study as representatives of the Discordant Couples living in Bugiri district. This sample size was considered appropriate for generating descriptive statistics required in this study. This study did not put into consideration any sample size calculation formula because it aimed at having as many respondents as possible amongst the

registered discordant couples in Bugiri district, and out of the 113 couples, 91 fitted the inclusion criteria out of which 60 managed to be part of the study.

To provide supplementary information, six key informants were selected from the health workers and community counselling aides. Their number was flexible since it depended on the kind of information to be sought for addressing the key research questions.

2.5.2 Sample Selection

Purposive sampling was used to select individuals who fit the inclusion criteria. Purposive sampling is a type of non-random sampling where individuals are selected from the spectrum the researcher is interested in.

Participants were recruited from Bugiri Main hospital with support from the Hospital HIV coordinator and NACWOLA Bugiri branch coordinator. The researcher decided to recruit from the hospital because, though NACWOLA implements direct activities with discordant couples, they do not reach to all the discordant couples registered in the district.

Hospital coordinator identified couples who fitted the inclusion criteria and they were then informed as study participants and why they had been selected. As a way of consenting to be part of the study without coercion, all the selected individuals/couples were given the researcher's telephone contact, and asked to leave a missed call as a way of showing their acceptance to participate in this

study. The researcher returned the call and the purpose of the study was clearly stated to them and further consent was sought for their readiness to participate in the study. Those that agreed to participate in the study were recorded and the interview schedule discussed.

From the hospital records, there were a total of 113 discordant couples, of which 91 fitted the inclusion criteria set above. Since this is a survey study and the number seemed manageable, all the 91 discordant couples were therefore invited to participate in the study; phone calls were made to all, of which 89 responded and were asked to participate in the study. They were asked to discuss with their partners before confirming their participation and confirmation would be by leaving a missed call on Researcher's study designated telephone line contact. The researcher received 73 missed calls, which were returned and more details were discussed in preparation for the study including information on voluntary participation and the anticipated time needed per interview. 12 couples gave excuses of lack of time and did not seem to offer alternative schedule so were dropped immediately hence bringing the number down to 61 couples. However one couple was purposively dropped because the couple lived in a hard to reach area, meaning it had cost and time implications on the study. This finally brought the number to 60 couples and they were successfully interviewed as shown in the subsequent chapter.

The key informants were also selected using purposive sampling, as persons known to possess vital information about the subject matter drawn from their knowledge, position and experience. The judgment of the researcher and advice from the hospital and NACWOLA coordinators guided the selection.

2.6. DATA COLLECTION METHODS AND TOOLS

2.6.1. Personal Interviewing

Interviews were arranged with all primary respondents and key informants. The former included discordant couples with either the HIV positive or HIV negative partners among the selected discordant couples. A structured questionnaire was used to obtain and record information from this category. The later were persons in service provision including health workers and community counselling aides selected purposively to give an independent opinion on whether or not the Biomedical HIV prevention strategies had an influence on marital stability among the discordant couples drawn from their experience having worked and lived with them in the same communities. An interview guide was used to obtain information from this group.

All the structured interviews were carried out in the Lusoga and samia, the local dialects understood by the people. The researcher ensured that language and other social and cultural sensitivities in the area were handled appropriately.

2.6.2. Document review

This included review of all relevant reports, journals and other material with useful information for addressing the study objectives and research questions. The documents, among others included those on HIV among the married couples, rate of discordance in Uganda and other parts of the world, possible causes of HIV discordance, interventions targeting discordant couples, HIV prevention strategies available for the discordant couples, library and archival documents related to the subject matter, mainly with regard to HIV prevention and marital stability among discordant couples.

2.7. PROCEDURE

2.7.1. Introduction

The researcher obtained a letter of introduction from the Department of International Cooperation policy-Public Health Management, Ritsumeikan Asia Pacific University, which introduced her to the district leadership and hospital management providing a brief explanation of the purpose of the research. The Hospital management in turn, provided the researcher with letter a introducing her to the study respondents and community authorities for security purposes.

2.7.2. Pre-test study

The questionnaire was pre-tested among 5 selected discordant couples in Bugiri Town Council, after which feedback was incorporated for better yields of this research project. Though the researcher had proposed to use both FGDs and IDI for data collection, from the pre-test, it was realized that it was practically hard to conduct FGDs since the study participants were spread all over the district making it literally hard to gather them at any one single point. Though the majority of the selected respondents belong to NACWOLA, they had no meetings during the study period since NACWOLA was experiencing a funding break and hence was not able to facilitate discordant couples' related activities.

Additionally, it was realized that self administered questionnaires would not be helpful in obtaining the data needed because as observed from the pre test results, illiteracy level was high especially among the women of Bugiri district. This is further proved from the findings; out of the 60 respondents, 31.7% had no education completely, 46.7% attained primary education, and only 5% and 1.7% attained post secondary and vocational education, respectively. After the pre-test, the researcher decided to only use a structured questionnaire for key respondents and an interview guide for the key informants.

2.7.3. Tools

The Quantitative Approach was used when developing the Questionnaire for the primary respondents. Data was then collected using a structured questionnaire with both open and closed questions. According to Christensen (2004), an open-ended question enables respondents to answer in any way they please, whereas a close-ended question requires respondents to choose from a limited number of predetermined responses. The benefit of close-ended questions is that they are easy to standardize, and the data thereof lend themselves to statistical analysis. The questionnaire consisted of 5 sections, namely: i) The profile of respondents, ii) Knowledge about the available prevention strategies and prevention practices, iii) quality of partner relationships and sex life of discordant couples, iv) Other factors that influence marital stability and suggestions for betterment of discordant couples marriages. The respondents were encouraged to respond to all the questions in all the sections.

2.8. DATA QUALITY CONTROL

Validity and reliability of the research instrument was ensured as follows:

Validity; After constructing the questionnaire, the researcher contacted the supervisor and two other research experts. Hence, the researcher established the validity of the instrument by the use of an expert judgment. This method is hailed by Gay and Airasian (2003) for being effective for survey tools. The researcher

made appropriate adjustments until the instruments were declared valid by all the team members involved.

Reliability; The reliability of a questionnaire is the consistency with which respondents interpret and respond to all the questions (Amin, 2005). There are two common methods of assessing questionnaire reliability. The method selected for this study was the internal consistency method. This method involves a single pre-test group and indicates the degree to which the items in the questionnaire are inter-correlated. Research instruments for all categories of respondents were pre-tested. The final instruments were developed and administered during the study.

Additionally, before interviews, the purpose of the study was carefully explained to key informants and respondents, emphasizing anonymity wherever necessary. No cases of partial or non-response were registered. Editing questionnaires before leaving the respondent and the daily evaluation of field progress were undertaken to ensure the quality of data collected.

2.9. DATA PROCESSING AND ANALYSIS

2.9.1. Qualitative data

At the end of each day all completed questionnaires and records from unstructured interviews with key informants were crosschecked to make sure all questions were answered and properly recorded. The qualitative data was examined from the field

and interpreted accordingly. Probes and prompts were used to ensure that all issues raised and observations made were clearly explained for their meaning and context. Then the general trends were developed from the codes before analyzing them for report writing.

2.9.2. Quantitative data

Quantitative data collected using questionnaires was verified, edited and coded by the researcher. Data quality steps included checking the questionnaire for internal consistency, scrutinizing to filter errors, non-response/missing, range checks, logical checks and so on. Open-ended questions were post-coded where possible to derive mutually exclusive categories; separate variables for each response were generated for multiple response questions. The data was laid out in a rectangular format with one record signifying one respondent. Copies of cleaned data were made available in the appropriate software called the Statistical Package for Social Sciences (SPSS). Frequencies were generated using the software. The data was elaborated and presented in form of graphs and tables showing percentages. Cross tabulation was used to compute the relationship between HIV Biomedical prevention strategies and variables measuring marital stability (quality of partner relationship and sex life)

2.10 ETHICAL CONSIDERATIONS

These were:

i) Permission to carry out the research study sought from Ritsumeikan Asia Pacific University, Faculty of International Cooperation Policy (Public Health Management) and Ministry of Health (Bugiri District Health Office)

ii) Informed consent was sought from all the study participants.

iii) Confidentiality, anonymity and privacy were fully guaranteed.

iv) Counseling services were provided for traumatized participants during interviews.

v) Voluntary participation

vi) In relation to holding interviews, the researcher felt that the most important ethical consideration was to inform the interviewees that it was; entirely voluntary, free to withdraw from the interview at any time and kept strictly confidential by the researcher.

2.11. LIMITATIONS OF THE STUDY

Given that the study was conducted in a rural district with only 28.3% of participants coming from urban areas, and also cross-sectional rather than longitudinal, findings may not be generalized at country level. However these findings can be generalized to the rural population and to some extent to the urban

discordant couples since Bugiri town council and Namayingo town councils were included to represent the urban population, though on a small scale. There are many couples below the age of 20years; this study however, only included those from 20 years of age and below 50 years. The results may therefore not be applicable to those discordant couples where any or both partners are below 20 or above 49 years.

The other anticipated threats to validity of this study may be as follows:

- Intervening or confounding variables, which were beyond the researcher's control such as honesty of the respondents and personal biases.
- The research environments under this study are classified as uncontrolled settings, where inappropriate variables may have had an influence on the data gathered such as comments from other respondents, anxiety, stress, and motivation on the part of the respondents while on the process of answering the questionnaires.
- Instrumentation: The research tools were non-standardized.

2.12. PROBLEMS ASSOCIATED WITH STUDYING DISCORDANT COUPLES

HIV discordant couples are a unique group of people with special psychosocial issues that need to be attended to when conducting any kind of study. There are issues of self and partner blame, HIV sero-conversion risk fears, family and community stigma and discrimination, and uncertainty on the causes. Because of

the above, discordant couples may be skeptical and this takes them more time to open up and respond freely to the researcher. Therefore, the researcher should consider using methodologies that would encourage them, and also create a comfortable environment that facilitates openness, and in case of emotional breakdowns, a strategy should be drawn on how to handle such cases prior to the start of the study.

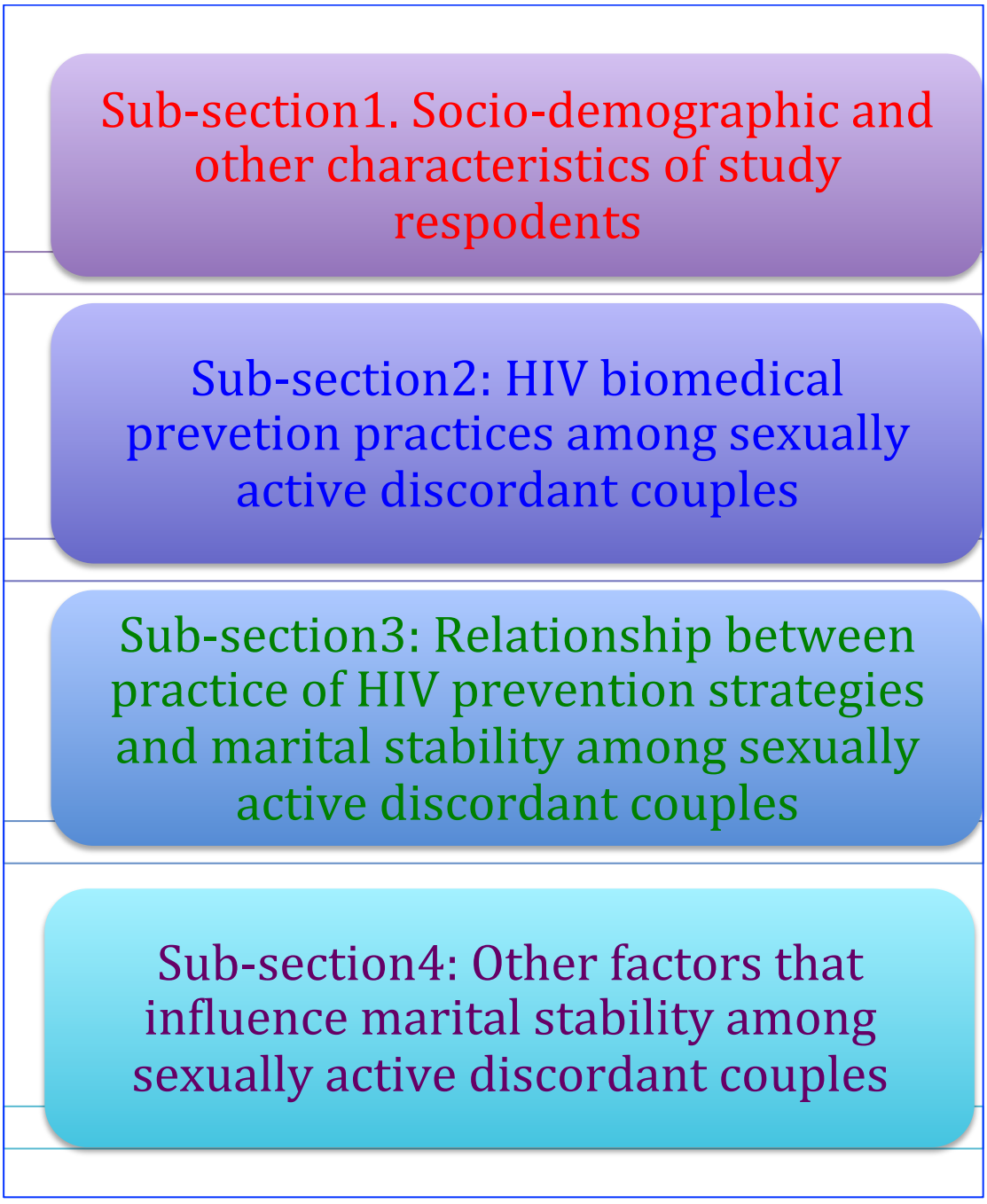
2.13. CONCLUSION

Although there were issues with the data collection tools before and during the pre-testing of this study, they were all finally resolved and data was collected successfully as reflected in chapter three that presents the findings. The researcher also zeroed down on frequency tables and cross tabulates as the most ideal options for data analysis. This will be well illustrated in the next chapter, which presents the data analysis that translates into interpretations and discussions. All in all, the methodology chosen was deemed appropriate.

CHAPTER THREE

FINDINGS, INTERPRETATION AND DISCUSION

3.0. SYNOPSIS



3.1 INTRODUCTION

This chapter presents the findings, interpretations and discussions of the study conducted. It is divided into four sub-sections representing the major themes of the study. The first sub-section presents the social demographic and other characteristics of the study respondents. The second sub-section is about the discordant couples practices of HIV biomedical prevention strategies; this is based on the first objective of the study that aimed at assessing the level of HIV Biomedical prevention practices among sexually active discordant couples in Uganda. The strategies here include HIV Biomedical prevention strategies targeting sexually active couples and these are Highly Active Antiretroviral Treatment (HAART), Sexually Transmitted Infections (STIs) management, Consistent correct condom use, and Safe Male Circumcision (SMC). The third sub-section analyses the relationship between HIV biomedical prevention practices and marital stability among discordant couples. This is done through measuring the contributions of prevention strategies onto the betterment of couples' sexual life and the quality of partner relationships, which appeared very important in assessing marital stability among discordant couples. This is followed by the fourth and last sub-section that looks at other factors that have contributed to marital stability among these couples outside biomedical practices, and these include: religion, number of children, length of marriage, culture, counselling and love.

3.2. SUB-SECTION 1: SOCIAL DEMOGRAPHIC AND OTHERS CHARACTERISTICS OF STUDY RESPONDENTS

3.2.1. Introduction

The study assessed the social demographic and other characteristics of the respondents before attempting to respond to the major study. The results are presented in table below:

Table 3.4: Social demography and other characteristics of respondents

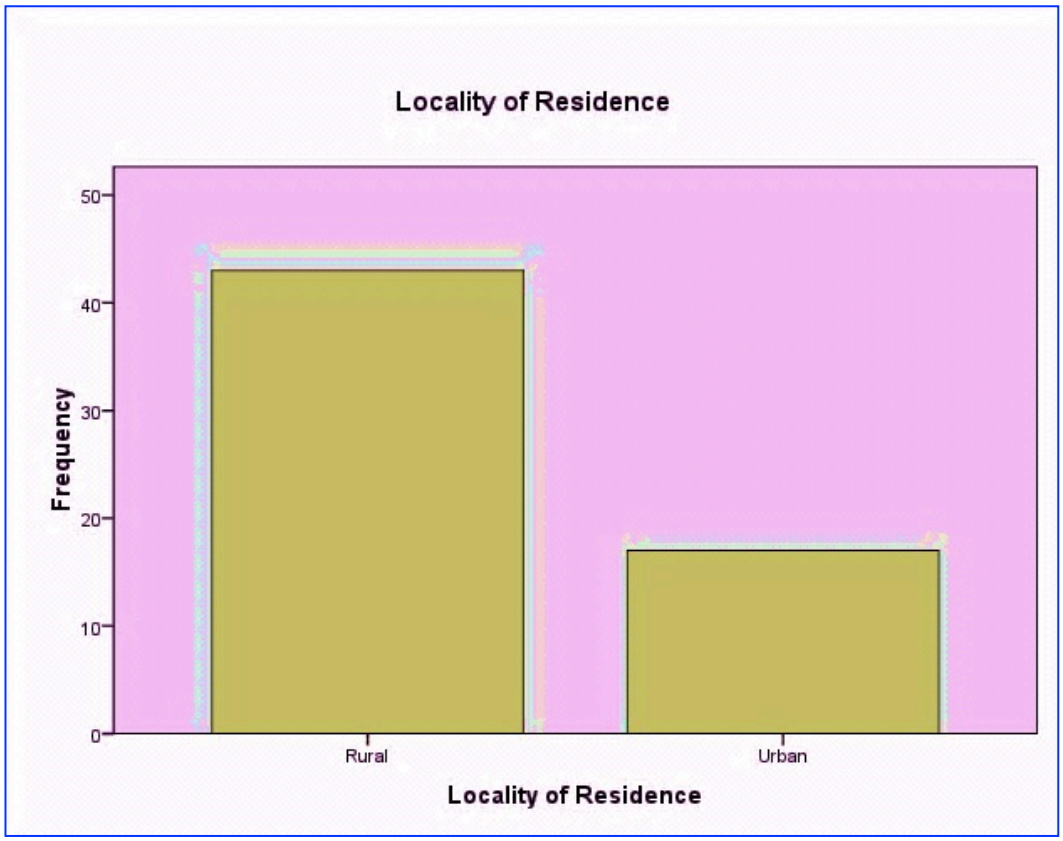
Characteristics		Frequency	
		#	%
Locality of residence	Rural	43	71.1
	Urban	17	28.3
Sex of respondent	Male	30	50
	Female	30	50
Age in complete years	20-29 year	6	10
	30-39 years s	26	43.3
	40-49 years	28	46.7
Marriage duration	<6	11	18.3
	6-10	19	31.7
	11-15	18	30.0
	16-20	12	20.0
Number of Children	None	8	13.3
	1-3	13	21.7
	4-6	28	46.7
	>6	11	18.3
Education level	No Education	19	31.7
	Primary	28	46.7
	Secondary	9	15.0
	Post Secondary	3	5.0
	Vocational training	1	1.7
Current Occupation	Salaried	2	3.3
	Business	22	36.7
	Peasant/farmer	30	50.0
	Casual labourer	3	5.0
	Unemployed	3	5.0
Religious denomination	Protestant	14	23.3
	Catholic	13	21.7
	Moslem	16	26.7
	Pentecostal	13	21.7
	Traditional	3	5.0
	Others	1	1.7
Household primary provider	Self	28	46.7
	Spouse	3	5.0
	Both	29	48.3
Primary health decisions maker	Self	15	25.0
	Spouse	11	18.3
	Both	34	56.7
HIV status	HIV positive	30	50.0
	HIV negative	30	50.0
How long did it take you to disclose to your spouse	<6 months	41	68.3
	6-12 months	13	21.7
	1-2 years	5	8.3
	>2 years	1	1.7
	Total	60	100.0
History of short lived separation before discovery of discordance	Never	33	55.0
	Once in a while	27	45.0
History of short lived separation after discovery of HIV discordance	Yes	57	95.0
	No	3	5.0

Although many studies do not discuss the results of the respondents' characteristics, it was found necessary in this study, since all the mentioned characteristics have a direct bearing on the study themes and all the information from this subsection is further integrated into the subsequent sub-section.

3.2.1. Locality of residence

From social demographic frequency table above, it is seen that 71% of the respondents are residents of rural areas, which is well illustrated using a bar chart below;

Figure 3.10. Shows locality of respondents residence



The fact that over 80% of the Uganda's population lives in rural areas (Ministry of Finance, Planning & Enonomic Development, 2007) justifies the above distribution of respondents in this study. It is important to note that there is more HIV infection in urban areas currently rated at 10%, as compared to rural areas where HIV prevalence stands at 6% (Ministry Of Health and ORC Macro, 2006). With this fact, it would have been better to have more respondents from the urban areas of Bugiri town council and Namayingo town councils as to match the geographical HIV epidemic distribution in Uganda.

Unfortunately, this was not possible because many of the selected couples from urban areas declined their participation in the study on the grounds of no time. To some extent this holds truth since many of the urban residents are involved in jobs that require a lot of attention in terms of time. For example, those with stalls in market, those with grocery outlets, among others work every day till late making it hard to participate in the interviews. During the in-depth interviews with the health workers, it was however revealed to the researcher that though time was a big constraint, the urban discordant couples were not as free as the rural couples to share out their lived experiences. Additionally, from the discussions with the NACWOLA CCAs, this issue was raised too, further revealing that many of the urban couples were not actively participating in the psychosocial support and counselling activities promoted in the district.

Another finding from the in-depth interviews is that the discordant couples in urban areas tend to separate more often than those living in rural areas. Though this was not part of the study objectives, it became an interesting finding that translates into a commendable recommendation and can be a basis for future research in trying to find out the factors that limit the urban couples from openness and attending support group activities outside the claimed time factor, and maybe also to look at what strategies can be developed to improve marital stability of discordant couples living in urban areas.

From all the above discussions, the researcher drew a conclusion that participation in especially counselling sessions is crucial for the success of marital stability among the discordant couples no matter where they live. Since couples living in rural areas were actively participating in support group activities including counselling, it could be also used to explain why they are many successfully nurtured discordant couples in rural areas as compared to rural areas.

3.2.2. Sex and HIV status

The study included 60 key respondents including 30 men and 30 women, of which 15 women were HIV positive and the other 15 were HIV negative. Likewise, 15 men were HIV positive and the other 15 were HIV negative. See the cross-tabulate below for a presented summary.

Table 3.5: Shows Observable sex * What is your HIV status Cross tabulation

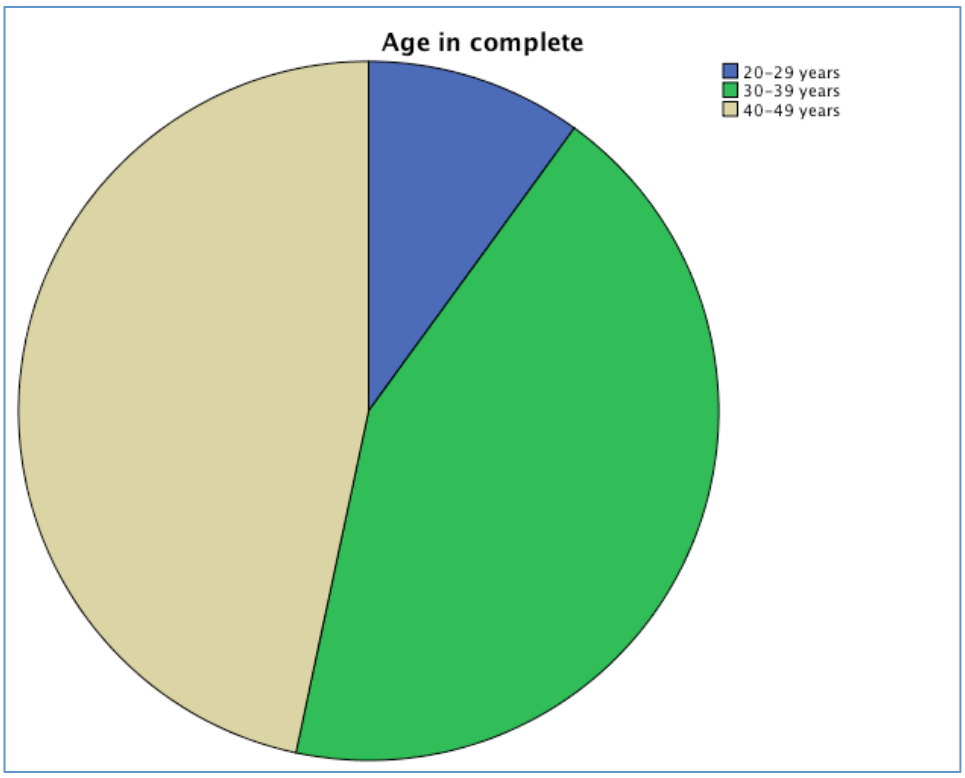
		What is your HIV status		
		HIV positive	HIV negative	Total
Observable sex	Male	15	15	30
	Female	15	15	30
Total		30	30	60

The sex and HIV status distribution was made equal so as to have an equal representation, and fair presentation of issues related to marital stability. Studies in the past have shown that each of these groups has unique characteristics justifying the reason to why the researcher included all the groups in equal numbers.

3.2.3. Age

This study involved men and women living in HIV discordant couples aged between 20 and 49 years. The social demographic frequency table above shows that 90% of the study respondents are aged between 30-49 years; where as 43.3% are aged 30-39 and 46.7% are aged 40-49 years. For a visual illustration, see chart below. Though the figure would change if a census was to be conducted among all the discordant couples in Bugiri, the researcher is convinced that this would not change a lot since it was in line with the national range of the age most affected by HIV among both men and women (Ministry Of Health and ORC Macro, 2006).

Figure 3.11. Age of study respondents



The available data in Uganda shows that the HIV prevalence rises with the rise in age and reaches a peak at 30-34 for women and 35-44 for men. The national data also reveals that though women are more infected more than men at all ages below 50 years, the trends change, registering more men than women infected with HIV after the age of 50 years (Uganda AIDS Commission , 2008). This study could not reflect on this phenomenon however, since the highest age was 49 years for men inclusive.

3.2.4. Length of marriage

The social demographic frequency table above shows that 18.3% of the couples have lived together for less than 6 years in marriage, 31.7% for 6-10 years, 30% for 11-15 years while 20% have lived together for 16-20 years. The simple interpretation is that the majority of discordant couples have lived together for 6-15 years including years before the discovery of HIV discordance. This is well illustrated in the figure below:

Figure 3.12: Shows length of marriages of interviewed discordant couples

From the discussions with the service providers and some of the discordant couples, the issue of length of marriage came out vividly as an important issue in

the stability of these marriages. This is backed up with information from other studies else where in the world. From the study conducted in Thailand about the factors that influence marital stability among discordant couples, it was discovered that couples who had been in marriage for a longer period had higher chances of continuing with their marriages even with the discovery of HIV discordance (A.Tangmunkongvorakul, 2010). The researcher is tempted to think that even with breakdowns in the provision of HIV prevention services, there is a possibility that couples that have lived together for a number of years will continue to live together.

3.2.5. Number of children

The study found that the majority of the couples have more that 4 children. From the social demographic frequency table above, it is seen that 13.3% have no children, 21.7% have 1-3 children, 46.7% have 4-6 and 18.3% have more than 6 children. See the chart below for clear illustration.

Figure 3.13: Shows number of children

Ideally, all HIV positive women should be restrained from giving birth more especially if they already have some children before discovering the HIV status; this is aimed at supporting their own good health as part of the principles of positive living for people living with HIV. This is not the case with the discordant couples living in Bugiri district though, as seen above. (Allen, 2011)

Though not all those children were born after the discovery of HIV discordance, the information from the key informants interviews reveals that on average, 2 children were born after one of the parents tested HIV positive among the majority of the interviewed couples especially among those with no or only

primary education. Besides promoting positive living principles, presence of children born after the discovery of HIV discordance is evidence of low levels of consistent condom use among discordant couples.

It is important to note that having protected sex is crucial in controlling sero-conversion among the HIV negative partners of discordant couples. Although there are many other risk reduction strategies, they are not widely used as explained in next the sub-section; for example, only 19 out of the 30 respondents living with HIV are on HAART, 21 out of 30 men are circumcised and only 24 of the 40 people who reported practicing STI management completed all the treatment as prescribed by the doctors all the time.

With that background therefore, the use of consistent correct condom use should be given more consideration. The researcher respects discordant couples' decisions to have as many children as they wish since children foster marital stability, but HIV prevention is a human rights issue that should be given enough attention for the benefit of the HIV negative partner as an individual and also for the family as a whole.

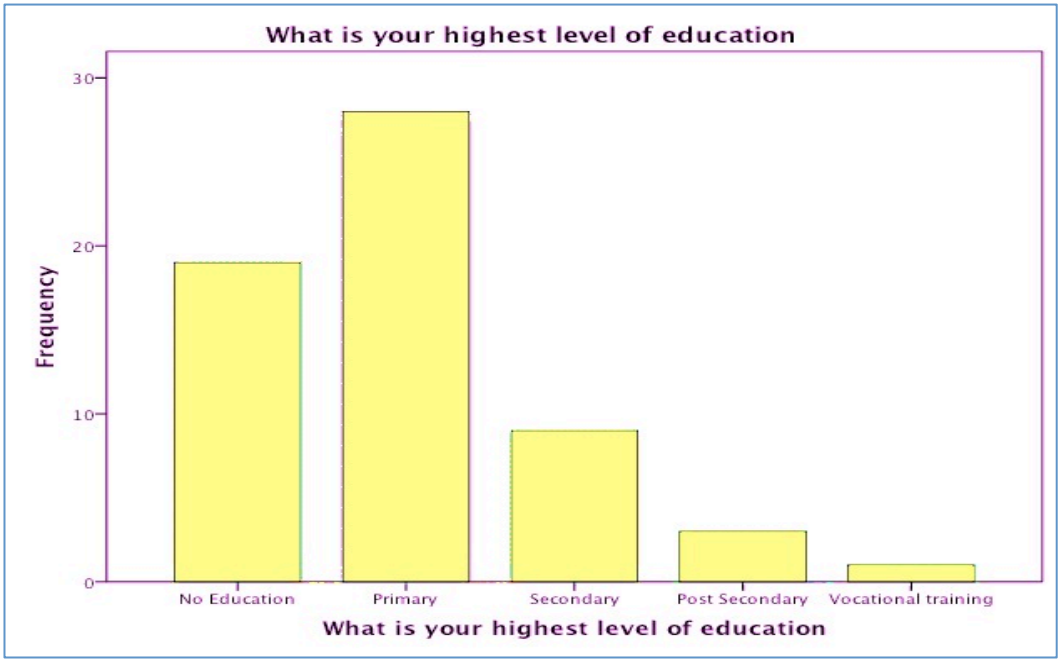
Though the issue of children is stressed even in the past studies conducted on factors that influence discordant couples' decision to live together (A.Tangmunkongvorakul, 2010),

it should not be used at the expense of HIV prevention. This study revealed that couples can still continue living together without children; 13% of the discordant couples in this study had no children.

3.2.6. Education

The results in the social demographic frequency table above show that 31.1% of the respondents had no education at all, 46.7% attained primary education, and 15% attained secondary education while only 5% and 1.7 attained post secondary and vocational training. See below for an illustration

Figure 3.14. Shows level of education among study respondents



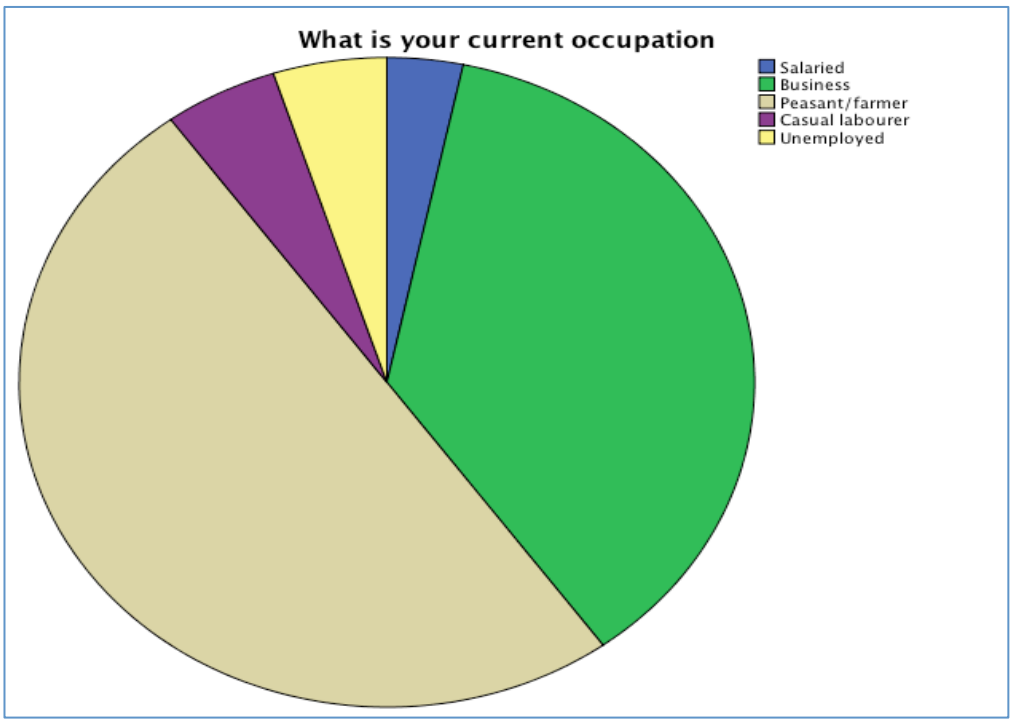
Though HIV affects all groups of people, an observation from the figure above is that there may be very few people with high education willing to participate in

studies that reveal their HIV discordance status. The researcher thinks that the so-called “educated” and “white collar job guys” are still in the hiding with issues related to HIV, and this is backed up by the information from the service providers who commented that in addition to urban couples, educated classy people also do not want to come out openly and talk about issues related to HIV. Though hospital statistics show a reasonable number of them being infected and/or living in discordant relationships, they are rarely part of the open psychosocial support groups and other peer activities.

3.2.7. Occupation

From the social demographic frequency table above, findings show that only 3.3% (2 people) work for a salary; 50% are peasant farmers, 5% casual labourers and 5% are unemployed; see illustration below.

Figure 3.15: Shows respondents' occupation



Although 36.7% of the respondents are involved in business, it is important to note that this is petty business which includes: fishing, grocery shops, market stalls, taxi and truck driving, among others. This conforms to the fact that since the majority of the study participants' level of education is low, it is therefore practically hard to have salaried jobs.

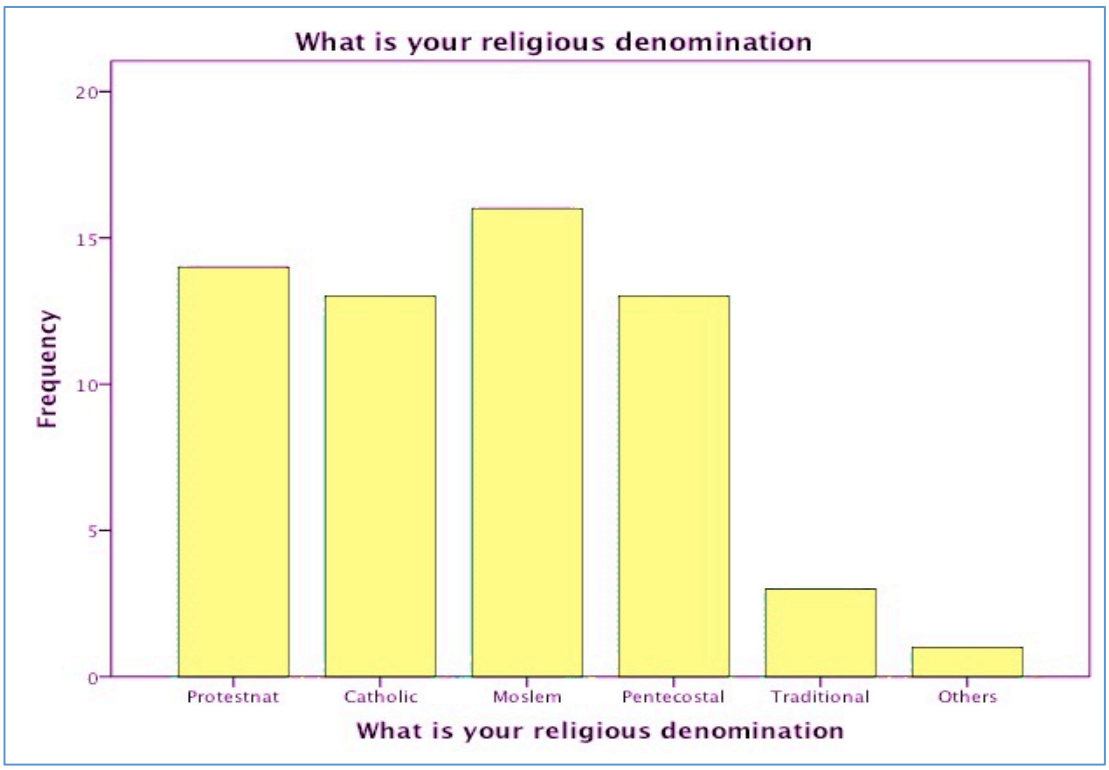
Though Uganda has designed and implemented great HIV workplace policies by both the government and Non Governmental Organisations, there seems to be little impact of the policies on the employee readiness to disclose their HIV status and share information freely beyond the managers/CEOs of their institutions in addition to very close family members and friends (SAN! Partner Organisations in Uganda, 2007).

From the discussion with the community counselling aides, it was observed that there were more marital breakups among the educated couples as compared to the couples with either no education or low levels of education. The researcher tried to relate this to economical factors where the partners with higher levels of education had job opportunities and therefore would afford to stay on their own in fear of HIV sero-conversion. However, the CCAs added that counselling is very important in the stabilization of discordant couples' marriages, and since the educated class of people tends to miss out on this component, the risk of breakups is higher. The CCAs also shared with the researcher that even where such couples accept to continue staying together, the majority practice secondary abstinence, meaning they are not sexually active discordant couples. The simple interpretation drawn from this discussion is that counselling is a very important component of interventions targeting HIV discordant couples.

3.2.8. Religion

The available reports have no segregated data on religious affiliations of the discordant couples in Uganda. However, this study found something unique that may be clarified in other studies to come. Though Muslims and Pentecostals account for only 12% and about 4% respectively of the Ugandan total population, in this study, the respondents seem evenly distributed among the four religions of Catholic (21.7%), Protestants (23.3%), Muslims (26.7%) and Pentecostals (21.7%) as shown in the social demographic frequency table above. See below for visual illustration.

Figure 3.16: Shows religious denominations of discordant couples



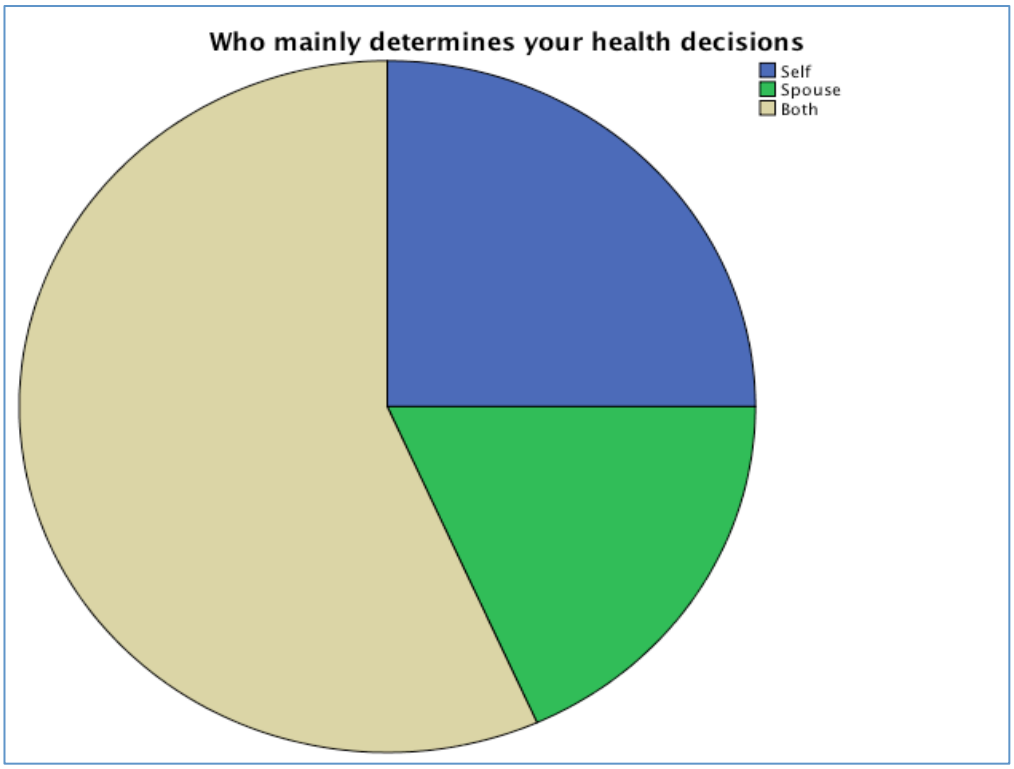
Though there is no clear reason for this finding, the researcher thinks that this could be that the religious distribution within the study area is different from the national figures, or about the culture of sharing developed within the Muslims and Pentecostals cycles, where people are encouraged to speak freely about HIV and AIDS. This study however has no concrete explanation to that effect; this could be clarified by other studies to come.

3.2.9. Primary health decision maker

The finding in the social demographic frequency table show that 25% of the respondents manage their own health decisions; 18.3% wait for their spouses to

make such decisions while 56.7% manage the health decisions as a couple, see graph below for clear illustration.

Figure 3.17. Shows who makes health decision



However, there is something interesting about these couples that may need attention in future studies. Only 2 out of the 30 women made independent health decisions as compared to 13 out of 30 men; see cross-tabulate below; The researcher did not have a chance to read about this comparison from the available literature, but thinks this has a direct bearing on the use of the prevention strategies and so deserves more attention.

Table 3.6. Shows Observable sex * Who mainly determines your health decisions Cross tabulation

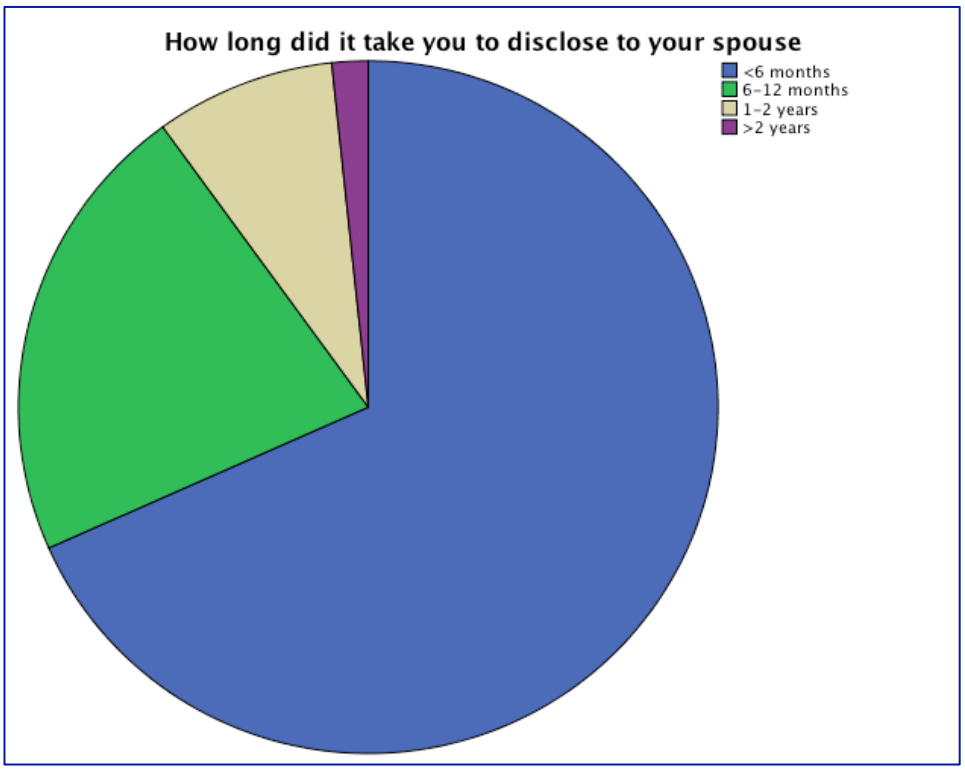
Count		Who mainly determines your health decisions			
		Self	Spouse	Both	Total
Observable sex	Male	13	0	17	30
	Female	2	11	17	30
Total		15	11	34	60

To the policy makers and programme designers, they need to take note that less can be achieved with less male involvement among the discordant couples, especially for those living in rural areas.

3.2.10. HIV disclosure

From social demographic frequency table above, results show that 68.3% of the respondents disclosed their HIV status within a period less than 6 months; 21.7% within 6-12 months, 8.3% within 1-2 years, while 1.7% went beyond a period of two years before HIV status disclosure. See figure below for visual illustration. However, the issue however is that this was not evenly distributed among men and women. The researcher decided to run a cross tabulate to find out the sex distribution, see below for the cross tabulate results.

Figure 3.18. Shows the time before HIV status disclosure



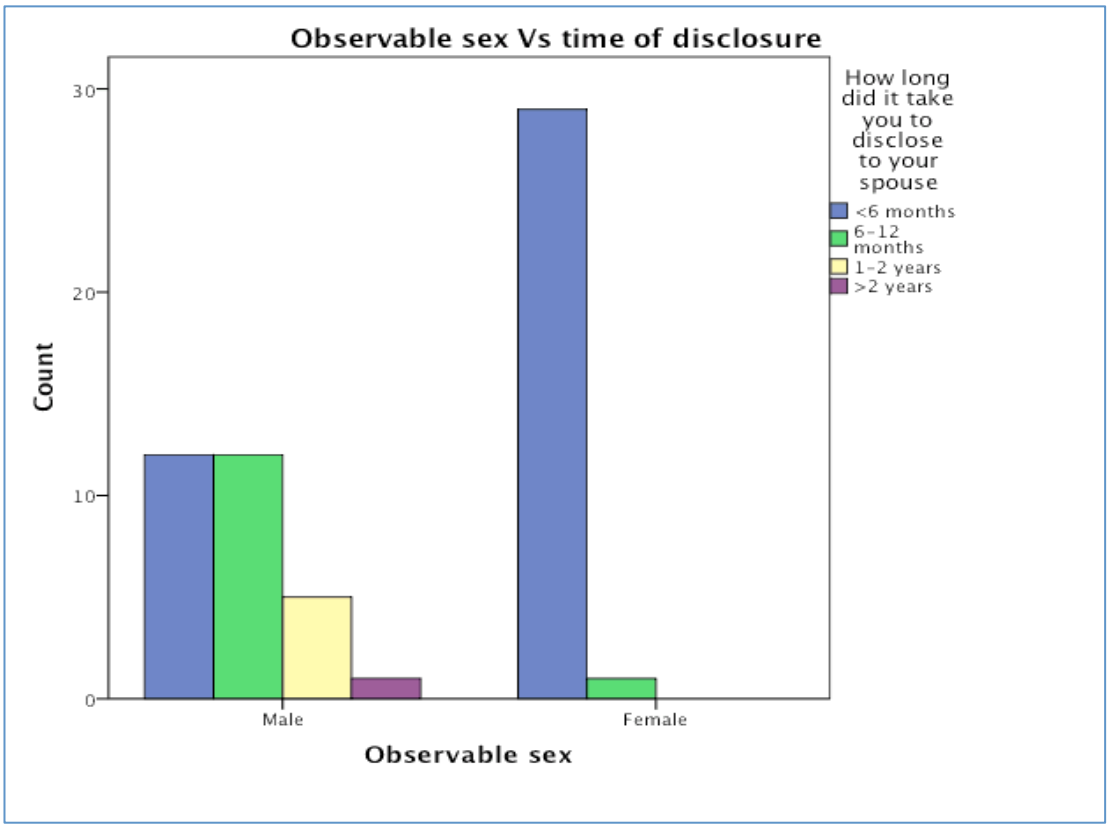
Using cross-tabulation, the data reveals that the majority of the men especially those living with HIV do not disclose their status until past 6 months, hence creating room for increased risk of HIV transmission to their wives.

Table 3.7: Shows relationship between sex and time taken to disclose

	How long did it take you to disclose to your spouse				Total
	<6 months	6-12 months	1-2 years	>2 years	
Male	12	12	5	1	30
Female	29	1	0	0	30
Total	41	13	5	1	60

The table above shows that, while 29 of the 30 women disclosed within 6 months, only 12 men disclosed their status within the same period. Though only women disclosed between 6-12 months, 12 men did disclose within this time. No females disclosed after 12 month, but for the men, they went as far as past two years. This is well illustrated in the figure below:

Figure 3.19. Shows visual relationship between sex and time taken to disclose



When the researcher asked the men about the reasons for their delay in disclosure, they gave fear as the main reason. While the HIV positive feared to communicate the bad news of HIV infection to their spouses, the HIV negative did not want to

create suspicion of infidelity to their spouses since taking an HIV test has always been viewed as a sign of being suspicious of HIV infection.

It is however worthy noting that maybe without pressure from the Antenatal clinics (ANC), women would actually take longer to disclose their status than men since women have more fears of domestic violence than men. In Uganda, though not promoted, it is to some extent acceptable for men to cheat on their wives, meanwhile, it is a taboo for a woman to cheat on her husband. The ANC policy however, requires all pregnant women to be tested for HIV and also to be accompanied by their husband for the ANC visits. To the researcher, this has been the main motivating factor behind the women's' early disclosure of their HIV status to their spouse and other people in the family.

Disclosure is a key principle in HIV prevention among discordant couples; studies have shown that people that disclose tend to work towards positive prevention as compared to those that have not disclosed yet. Disclosure also plays a big role in improving the well-being of the HIV infected persons because it improves the level of support given from family, community and health facilities. Personal well-being plays a role in the quality of partner relationship and sex life, which are vital for the flourishing of marital stability.

Many studies have recommended promotion of couple HIV counselling testing (CHCT) especially that conducted within homes of the couples to ease the

disclosure process. Results from a home based HCT project implemented in western districts of Uganda show 80% response rate from the couples. There is a need to borrow that project's approach and replicate the project in all the regions of the country to improve disclosure rates more especially among men.

3.2.11. Short lived separation

From social demographic frequency table above and figures below, it is shown that 45% of the couples experienced temporary separation before discovery of discordance, which rose to 95% after discovery of HIV discordance among the interviewed couples. See below for a visual illustration. Since the available reports show that women are usually victims of domestic violence, which is exhibited through separation, the researcher was tempted to find out who was most affected, and this is illustrated in the cross tabulates below.

Figure 3.20. Shows level of separation before the discovery of HIV discordance

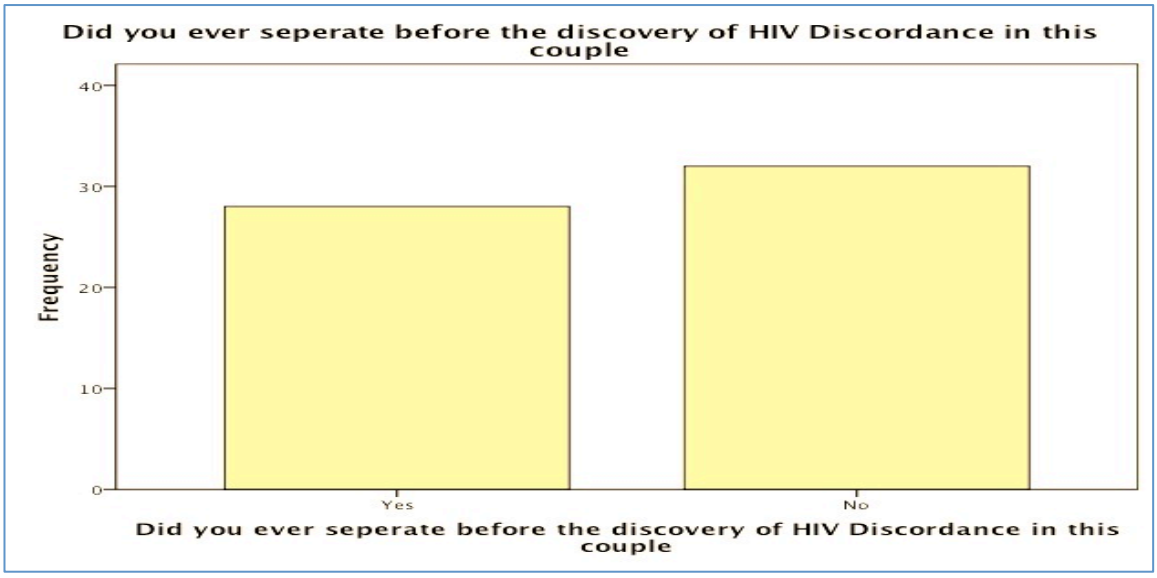
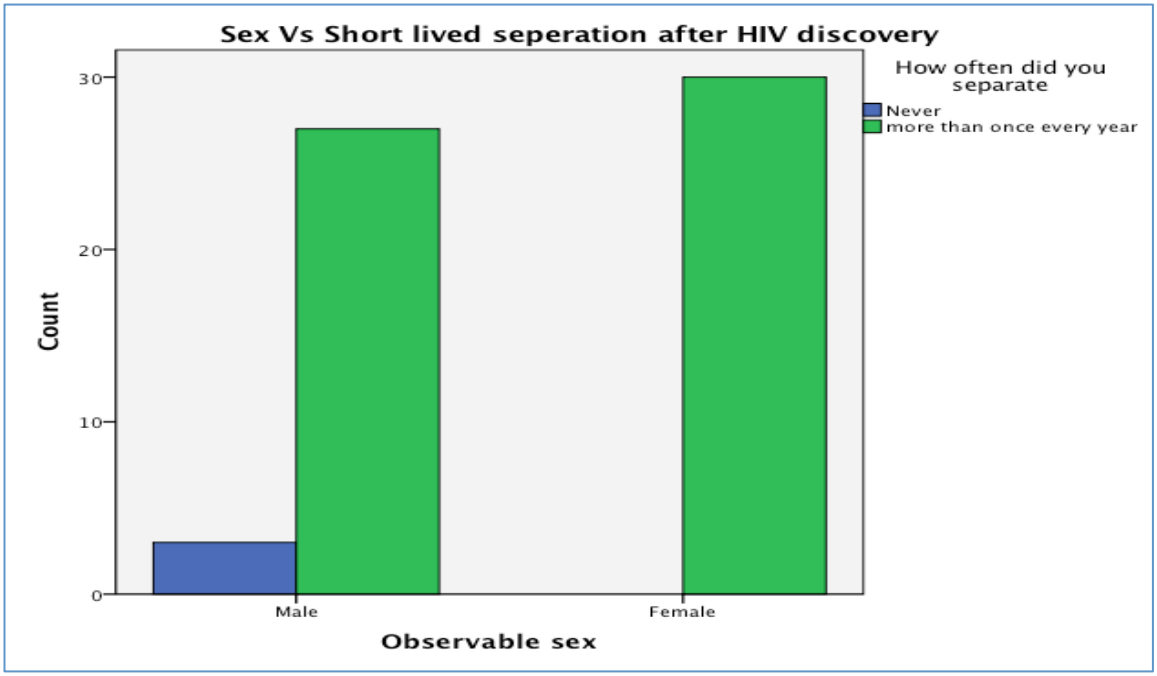


Figure 3.21. Shows level of separation after the discovery of HIV discordance but before prevention practices

From a cross-tabulate (see figure below), it is clearly seen that though almost all couples suffered a short lived separation, women were more affected especially those living with HIV negative husbands. This is evidence that HIV positive women have less chances of enjoying their marriages after the discovery of HIV discordance. This finding is supported by the information gathered from the health workers and community counselling aides who informed the researcher that though the marriages among discordant couples are relatively stable, there are more break ups in couples where the woman has the HIV as compared to those of their counterparts.

Figure 3.22: Shows sex and level of separation among the discordant couples after the discovery of HIV discordance



Though disagreements and short-lived separations are anticipated due to the HIV status especially among discordant couples, rising from 45% to 95% is very huge that calls for more specific programmes designed to address this with discordant couples so as to contribute to the betterment of their marriages.

3.2.12. Conclusion

The above analysed issues are just a few of the outstanding concerns related to social demographic characteristics of HIV discordant couples. These were discussed because of their influence on the study focus and their importance in the betterment of discordant couples' marriages as will continue to be seen in the subsequent sections.

3.3. SUB-SECTION2: HIV BIOMEDICAL PREVENTION PRACTICE AMONG SEXUALLY ACTIVE DISCORDANT COUPLES

Introduction

This section builds on the first objective of this study, which aimed at assessing the level of HIV Biomedical prevention practices among sexually active discordant couples in Uganda. Data was collected to answer the question of t*o what level do sexually active discordant couples practice the HIV biomedical prevention strategies*. All the collected data was analysed and this section looks at the findings and necessary discussions. It is important to bring to the attention of the reader that all the findings and discussion in this sub-section are based on the hypothesis "All sexually active discordant couples with correct knowledge of the existing HIV biomedical prevention strategies do practice all the applicable strategies to protect the HIV negative partner in the couple from HIV sero-conversion"; this guided the scope of data set necessary for proper interpretation and meaningful conclusions in line with the set study objective one (1). This sub-section is divided into two parts; part one measures the knowledge levels while part two presents the HIV biomedical practices and knowledge levels among discordant couples in this study. Peeping

3.3.1. Knowledge levels on HIV biomedical prevention strategies

The results presented in this part are an extract of direct responses made by the discordant couples involved in the study following the administered questionnaire.

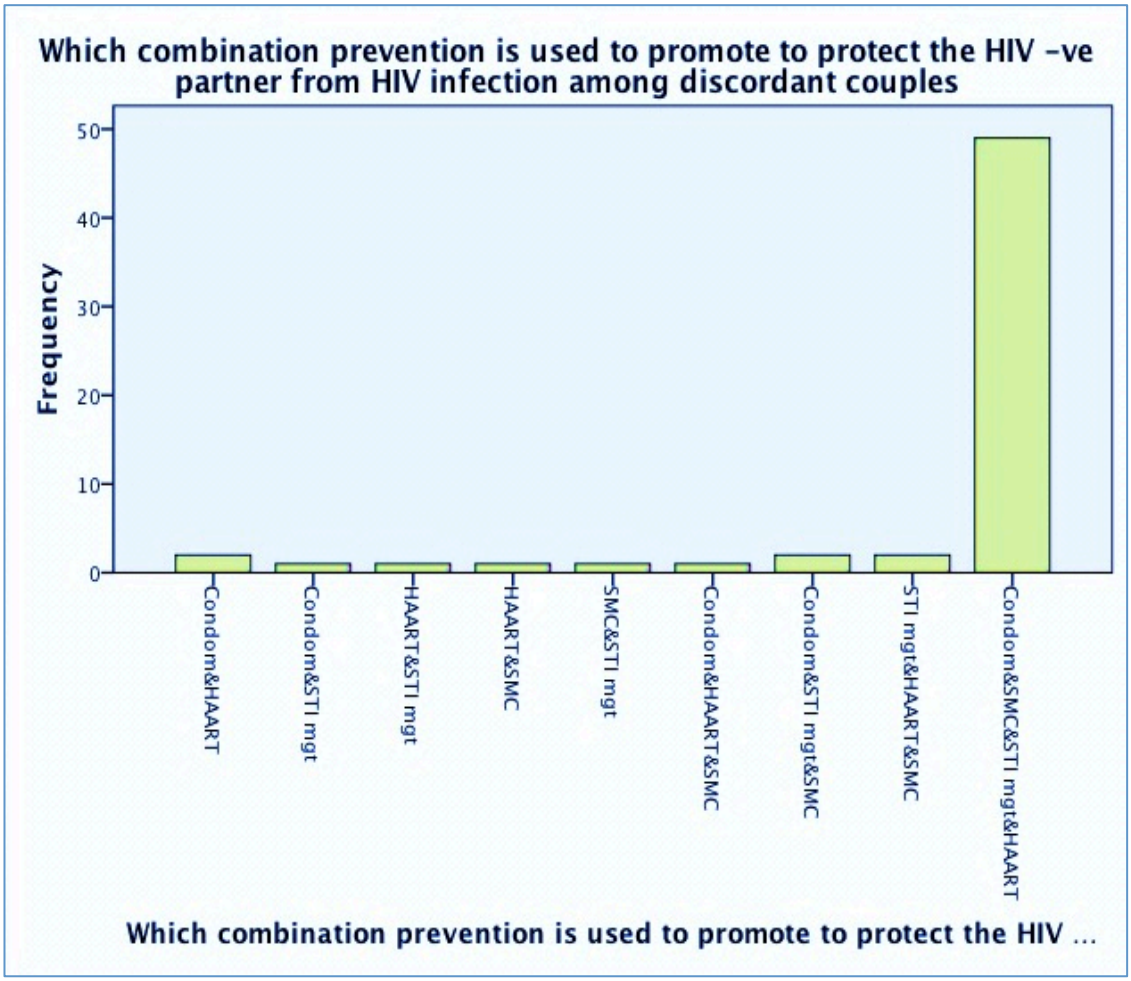
Since this study was not aimed at assessing the knowledge levels as the main outcome, the researcher only established the level of discordant couples' basic knowledge about proven HIV biomedical prevention strategies. This was done through asking the discordant couples to choose what they thought was most correct from the list presented to them, and responses are presented in the table below:

Table 3.8: Knowledge levels on HIV biomedical prevention strategies among discordant couples

Question	Response	Frequency	
		#	%
Which combination prevention is used to protect the HIV -ve partner from HIV infection among sexually active discordant couples	Condom & HAART	2	3.3
	Condom & STI mgt	1	1.7
	HAART & STI mgt	1	1.7
	HAART&SMC	1	1.7
	SMC&STI mgt	1	1.7
	Condom & HAART & SMC	1	1.7
	Condom & STI mgt &SMC	2	3.3
	STI mgt & HAART & SMC	2	3.3
	Condom & SMC & STI mgt &HAART	49	81.7
	Total	60	100.0

With the low literacy level among the respondents, where 31.1% have no education and 46.7% only attained primary education, it was anticipated that though the interviewed couples are benefiting from the prevention strategies, some of them would not be in a position to comprehend benefits of the interventions in the prevention of HIV infections within their marriage. To the researcher's surprise however, there was high knowledge levels among the selected respondents where 81.1% of the respondents mentioned all the four HIV biomedical prevention strategies as seen in the frequency table above; a visual illustration can be viewed below.

Figure 3.23. Shows Knowledge levels on HIV biomedical prevention strategies among discordant couples



The researcher had a subjective assumption that if knowledge levels are low, the possibility of getting false results among the responses is higher; a high knowledge level is therefore a contributing factor to the reliability of the responses given in the succeeding subsections. Additionally, data available shows that higher knowledge levels match with good prevention practices among people living with HIV in Uganda (Uganda AIDS Commision, 2008), it is assumed that those in discordant couples are inclusive.

3.3.2. HIV biomedical prevention practices among discordant couples

After understanding the knowledge levels, the researcher went ahead to assess the prevention practices among sexually active discordant couples. This is purely social research with no clinical assessments as to confirm the reliability of the responses given. For example, there was no requirement for proof of circumcision, HAART adherence, treatment of STIs and or consistent condom use. However, at the start of the interviews, the participants were asked to speak the truth as much as possible. To facilitate honesty, the interviews were made highly confidential, no third parties were allowed to participate which created a free and fair environment hence eliminating any kind of fears that would hinder honesty. The table below presents the results of the recorded responses from the discordant couples involved in this study.

Table 3. 9. Shows practice of HIV biomedical prevention strategies among discordant couples

Question	Response	Frequency	
		#	%
HAART			
Are you on HAART	HIV-	30	50
	Yes	19	31.7
	No	11	18.3
	Total	60	100.0
Safe Male Circumcision			
Are you circumcised	Female	30	50
	Yes	21	35.0
	No	9	15.0
	Total	60	100.0
STIs management			
Do you treat your STIs as prescribed (time and complete dose)	Yes	24	40.0
	No	15	25.0
	Sometimes	21	35.0
	Total	60	100.0
Condoms			
How often do you use condoms	All time	46	76.7
	Some times	14	23.3
	Total	60	100.0

As said earlier on, at the establishment of this study, the researcher hypothesized that "Sexually active discordant couples with correct knowledge of the existing HIV biomedical prevention strategies do practice all the applicable strategies to protect the HIV negative partner from HIV sero-conversion." The interpretation of this hypothesis is that with correct knowledge, ideally, all HIV negative men will circumcise since they know the benefits of circumcision, all people living with HIV will enroll on HAART to earn from its protective benefits, all couples will regularly screen for STIs and treat them as per the health workers prescription and will use condoms consistently and correctly all the time.

Below are the findings based on knowledge levels and level of HIV biomedical prevention practices. They are presented under themes developed on the basis of HIV biomedical prevention strategies of ;

i. Highly active antiretroviral Therapy/treatment -HAART

ii. Sexually transmitted Infections management-STIs,

iii. Consistent correct condom use -Condom

iv. Safe male circumcision- SMC.

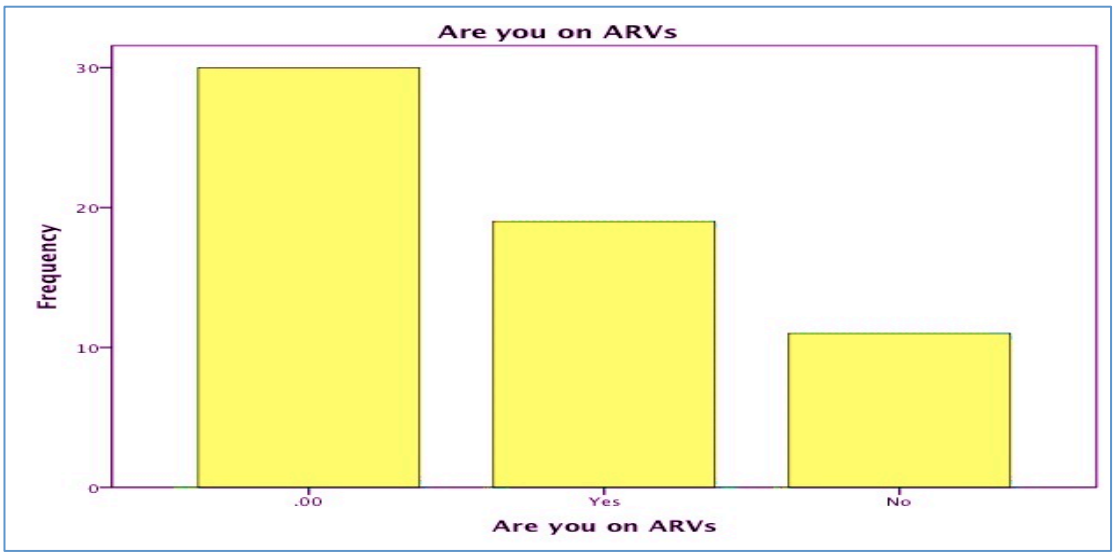
3.3.2.1. Highly Active Antiretroviral Treatment

Many studies have proved the benefits of HAART in the prevention of HIV transmission among discordant couples (Castilla J, 2005) (Reynolds S, 2009), (Sullivan P K. K., Febuary 8-112009), (Graich RM, 2009) (David N. Burns, 2010; Oguntibeju OO, 2008). The most recent study; HTPN 052 found that HAART has

the capacity to reduce the risk of HIV infection up to 96% among discordant couples (Myron Cohen, 2011). With that background, ideally all the HIV positive partners in the discordant couples would be expected to be enrolled on HAART so as to maximize the benefits of HAART to prevent infecting the negative partner. This is a very important aspect in promoting both marital stability and HIV prevention in general. Additionally, with the 81% knowledge level, it is assumed that ideally, the majority of people living with HIV would demand to be enrolled for HAART so as to protect the HIV negative partner from sero-conversion.

From the frequency table above, 30 people are HIV negative and the other 30, HIV positive. Out of the 30 that are living with HIV, only 19 are enrolled on HAART which is about 63%, and the other 37% though living with HIV are not yet enrolled on the HAART programme: see visual illustration below.

Figure 3.24: Shows Number of people enrolled on HAART



Note-.00 refers to HIV- respondents

With the hypothesis that sexually active discordant couples with correct knowledge of the existing HIV biomedical prevention strategies practice all the applicable prevention strategies to protect the HIV negative partner from sero-conversion, the assumption here is that all sexually active PLWHIV living in discordant couples should enroll and practice HAART. To test the validity of this assumption, the researcher ran cross tabulations and results are presented below.

Table 3.10. Shows Knowledge levels * Are you on ARVs -Cross tabulation

Count		Are you on ARVs			
		HIV-	Yes	No	Total
Which combination prevention is used to promote to protect the HIV -ve partner from HIV infection among discordant couples	Condom &HAART	1	0	1	2
	Condom &STI mgt	1	0	0	1
	HAART&STI mgt	1	0	0	1
	HAART&SMC	1	0	0	1
	SMC&STI mgt	0	0	1	1
	Condom &HAART&SMC	0	1	0	1
	Condom &STI mgt& SMC	0	2	0	2
	STI mgt &HAART&SMC	1	1	0	2
	Condom &SMC&STI mgt &HAART	25	15	9	49
Total		30	19	11	60

From the table above, 24 of the people living with HIV have high knowledge levels, based on the assumption that all those with correct knowledge about the benefits of HAART in the prevention of HIV infection will practice the strategy, ideally all the 24 would be enrolled on HAART; meaning 24 of the 30 PLWHIV would be enrolled and practicing HAART as a prevention strategy. This is however not the case; instead 21 people only enrolled and were practicing HAART. Building on that, it is therefore not right to say that all discordant couples with the correct knowledge practice all the applicable prevention strategies available.

From the available literature, it has been acknowledged that it is paramount to enroll all the people living with HIV on HAART as early as possible especially those living in discordant marriages so as to reduce the risk of new HIV infections. However, this has not been possible because HAART is still not an affordable intervention in terms of funding; including the costs of buying the drugs and the human resource requirements.

As a result, only 248,222 people are currently receiving HAART which is just about 47% of those in need of HAART in Uganda (WHO/UNAIDS/UNICEF , 2011).

Additionally, the rollout has been delayed by the issues related to poor storage, weak procurement and distribution system and pathetic quality control practices (WHO , 2008). To manage the problem partly, Uganda plans to boost HAART intervention with a strengthened chain of supply and probably with the accessibility to cheaper drugs that are now being manufactured within the country in partnership with Cipla, an Indian pharmaceutical giant (WHO , 2008; Pharmaceutical Technology. Com; All Africa, 2011; Consultancy Africa Intelligence , 2010).

Results from this study show that 19 out of 30 people living with HIV are on HAART. This is about 63.3% compared to 47%-Uganda‘s HAART enrollment rate. But it is not something to jubilate over since the figure cannot be used as a reference because not all the HIV positive partners were interviewed. Secondly, it

is important to note that for universal prevention of HIV infection among discordant couples, there is a need for 100% HAART enrollment for PLHIV living in discordant couples, which is not the case among the couples in this study. Worthy noting, HAART's strength in the prevention of HIV depends solely on adherence, which this study did not measure.

3.3.2.2. Safe Male Circumcision

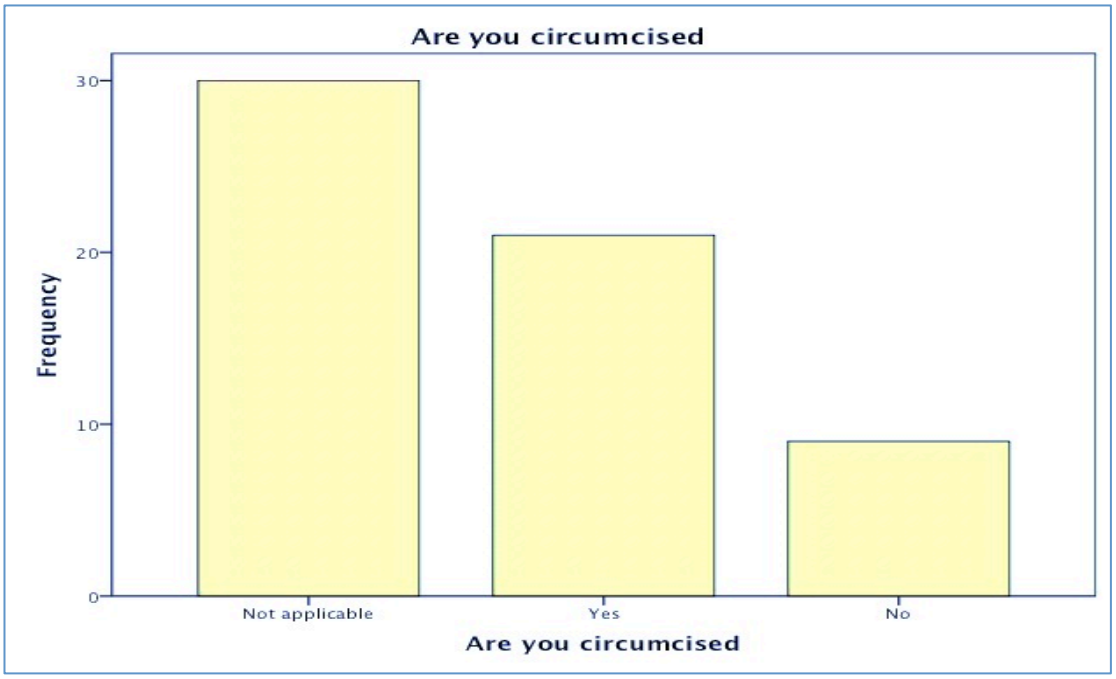
A number of trials were conducted to prove the effectiveness of safe male circumcision in the prevention of new HIV infections. A study conducted in Uganda among 4,996 men of 15 to 49 years of age found out approximately 51% risk reduction in HIV infection among the circumcised men while in Kenya where the study was conducted among 2,784 men of 18 to 24 years of age, the HIV infection risk reduction was calculated at approximately 59% (Ronald H Gray, 2007) (Robert C Bailey, 2007). With other studies conducted elsewhere, accumulatively, the reduced relative HIV risk has been calculated at 60% and as a result WHO and UNIADS authorized the addition of safe male circumcision on the prevention package especially for HIV discordant couples.

Uganda through the Ministry of Health has adopted the strategy and implementation is in progress as part of the HIV prevention package targeting both general population and discordant couples in particular. It is said that if 80% of the Ugandan men got circumcised, then, the new infection rate would decrease from 130,000 to 97,000 people in the first year, 73,125 in the second year, 54,844

in the third year and so on (Ministry of Health-Uganda, 2011). With these facts, we realize the importance of safe male circumcision among the Ugandan men and those in discordant couples in particular.

The study results show that Out of the 30 men interviewed, 21 are circumcised, which is about 70% rate, as compared to 80% national target. It is however important to note that, though there is no specific target for discordant couples as per now, the researcher that that while the general population target is 80%, the specific target for the discordant couples should ideally be 100% among HIV negative men as one of the most at risk populations (MARPs) in the management of HIV infections.

Figure 3.25. Shows rate of circumcision among sexually active discordant couples



Note: Not Applicable refers to female respondents

Being that there is less HIV protective effects to the men already living with HIV. The researcher realized the need of finding out how many of the HIV negative men are circumcised. A cross tabulation was ran and results reveal that out of the 15 HIV negative men, 12 men are circumcised which comes to 80% circumcision rate improving the extent to which the HIV negative men living in discordant couples do practice circumcision. See a cross-tabulate below for details;

Table 3.11. Shows HIV status * Are you circumcised? Cross tabulation

		Are you circumcised?			
		Female	Yes	No	Total
What is your status	HIV positive	15	9	6	30
	HIV negative	15	12	3	30
Total		30	21	9	60

As away of relating the findings to the hypothesis set out at the start of the study, the researcher ran cross tabulates to find establish if all the men with high knowledge levels were circumcised, results are presented in the table below;

Table 3.12. Shows Knowledge levels * Are you circumcised- Cross tabulation

Count		Are you circumcised?			
		Not applicable	Yes	No	Total
Which combination prevention is used to promote to protect the HIV -ve partner from HIV infection among discordant couples	Condom & HAART	1	0	1	2
	Condom & STI mgt	0	1	0	1
	HAART & STI mgt	0	1	0	1
	HAART & SMC	1	0	0	1
	SMC & STI mgt	0	0	1	1
	Condom & HAART&SMC	0	1	0	1
	Condom & STI mgt & SMC	1	1	0	2
	STI mgt & HAART & SMC	0	2	0	2
	Condom & SMC&STI mgt & HAART	27	15	7	49
Total		30	21	9	60

From the cross tabulation above, it is clearly seen that not all men with the knowledge of prevention are circumcised. It is seen that 7 out of the 9 men who are not circumcised (which is about 78%) do have the correct knowledge but not practicing circumcision as a prevention strategy. Based on the set hypothesis, with that knowledge level, those 7 men would ideally be expected to practice circumcision so as to contribute to HIV infection reduction within the discordant couples. The laxity in practicing SMC as an HIV prevention strategy could be contributed to cultural norms, where some cultures do not promote circumcision, religious beliefs and personal fears. Not all are brave enough to undergo the pain of circumcision.

To further establish any more links related to HIV prevention knowledge levels and prevention practices, the researcher established how many men were circumcised as a result of knowledge of HIV prevention and results are presented in the table below:

Table 3.13. Shows knowledge levels and reasons for circumcision –Cross tabulation

Count		Why were you circumcised?				
		Female	Culture	HIV prevention	Personal interest	Total
Which combination prevention is used to promote to protect the HIV -ve partner from HIV infection among discordant couples	Condom &HAART	2	0	0	0	2
	Condom &STI mgt	0	0	1	0	1
	HAART&STI mgt	0	1	0	0	1
	HAART&SMC	1	0	0	0	1
	SMC&STI mgt	1	0	0	0	1
	Condom &HAART&SMC	0	0	1	0	1
	Condom &STI mgt&SMC	1	0	0	1	2
	STI mgt &HAART&SMC	0	0	1	1	2
	Condom &SMC& STImgt & HAART	34	12	3	0	49
Total		39	13	6	2	60

Results from the cross tabulate above show that out of the 21 circumcised men, 13 men were circumcised when still young as part of the culture more especially among the Muslim communities. Eight (8) were circumcised at adult age, of which 6 (75%) were circumcised for purposes of HIV prevention and only 2 (25%) got circumcised for personal interest. This clearly shows that the higher the knowledge levels, the higher the prevention practices, but still, it does not mean that all those with the knowledge, will practice the prevention strategy.

In summary, though not all the HIV negative men with the correct information are circumcised, it is important to note that the majority are circumcised which is the important point to note in relation to HIV biomedical prevention strategies. It is however important to note that knowledge alone is not able to influence all the men to get circumcised.

3.3.2.3. Sexually Transmitted Infections Management

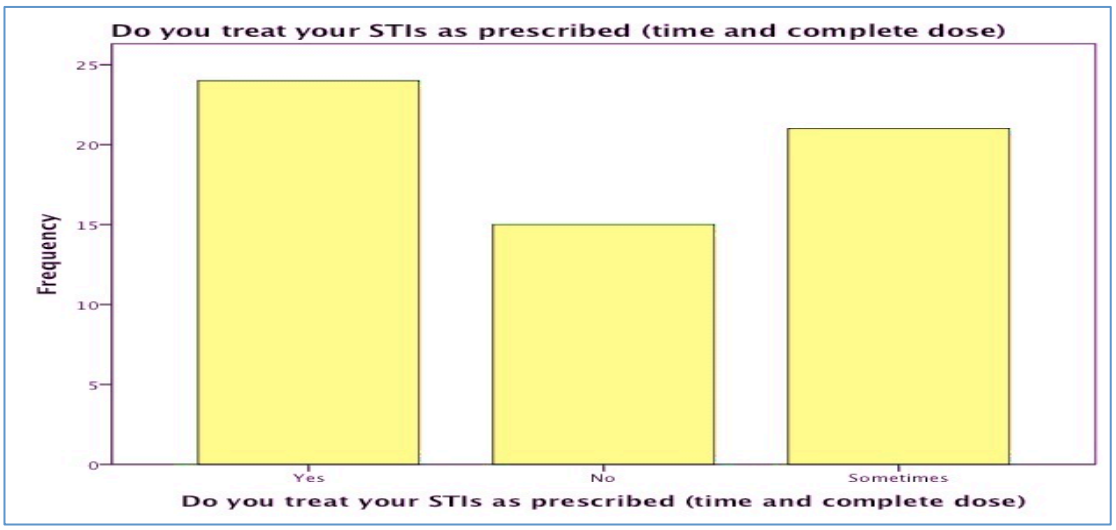
From the previous reports, Management of both ulcerated and non-ulcerated sexually transmitted infections is key in HIV prevention especially among the sexually active discordant couples (Centre For Disease Control And Prevention , 1998). Studies have shown that the risk of sero conversion is 2-5 times higher among couples with STIs compared to those without (JN, 1992) (Cohen, 1998). STI increases the risk of HIV transmission in two basic ways, involving both the HIV negative and positive partners in the couple. On the side of the HIV negative

partner, STIs increase susceptibility to infection especially through ulceration, which causes breaks in the genital tract lining hence creating a gateway for HIV.

Additionally, the skin tenderness caused by the ulcers or non-ulcerative STDs escalate concentration of cells in genital secretions that can serve as targets for HIV. (Anderson, 2007). Secondly, STIs increase the level of infectiousness of the HIV positive partners increasing the risk of passing over the H-Virus to the partner. Available reports show that those people infected with both HIV and STIs do shed HIV in their genital secretions. It is said that men who are infected with both gonorrhea and HIV are more than twice as likely to have HIV in their genital secretions than those who are infected only with HIV. the higher the concentration of HIV on semen or genital fluids, the higher the chances of transmission

Although all the available data shows how important it is to manage STIs by going for regular screening, and timely treatment backed up by good adherence, the uptake is still very low. From the frequency table above, only 40% of the respondents reported good adherence to treatment given to them, 21 attended the STI clinic but did not follow the treatment instructions always, while 25% had never even visited the clinic for STI screening and/or treatment; see visual illustrations belo:

Figure 3.26. Shows STI management among sexually active discordant couples



Having only 40% of the discordant couples upholding this important prevention strategy is a big gap in the HIV prevention efforts in Uganda, hence calling for attention from the policy makers on HIV prevention among discordant couples to think of motivating factors that can be used to push up the numbers to a reasonable percentage.

With the low levels of practice, the researcher tried checking if it is the issue of lack of knowledge amongst the discordant couples that had caused this very poor result. A cross tabulate on the link between prevention knowledge and STI treatment practices was done and results are as seen below:

Table 3.14 STI treatment among discordant couples * STIs Management – Cross-tabulation

Count		Do you treat your STIs as prescribed			
		Yes	No	Sometimes	Total
Which combination prevention is used to	Condom &HAART	0	1	1	2
	Condom &STI mgt	0	1	0	1

promote to protect the HIV -ve partner from HIV infection among discordant couples	HAART&STI mgt	0	0	1	1
	HAART&SMC	0	0	1	1
	SMC&STI mgt	1	0	0	1
	Condom &HAART&SMC	1	0	0	1
	Condom &STI mgt &SMC	2	0	0	2
	STI mgt &HAART&SMC	1	0	1	2
	Condom &SMC&STI mgt &HAART	19	13	17	49
Total		24	15	21	60

From the table above, 49 people had a good knowledge of the prevention strategies. However only 19 people managed STIs as prescribed by the health workers, which is approximately 38%. 17 (35%) treated STIs sometimes while 13 (27%) people never treated the STIs. From the above, we realize that the not all those with the correct knowledge practice STIs management as a prevention strategy.

From the discussions with the service providers and the discordant couples themselves, it was realized that the discordant couples still have poor health seeking behaviours when it comes to STIs management. Most people only treat STIs that really make them uncomfortable by way of pain or smelly discharge. As such, STIs that do not exhibit any form of discomfort tend to be ignored.

3.3.2.4. Condom use

Regarding the utilization of HIV biomedical prevention strategies, the findings show that all the couples at least adopted condom use as a major way of controlling infections to the negative partners in these relationships. During the interviews, all the couples reported having used condoms as many times as possible. However, the researcher got interested in the consistent and correct use of the condoms. The results show that 76.7 % of the respondents use condoms consistently which is very close to findings from other studies conducted elsewhere involving discordant couples benefiting from other interventions including counselling and treatment. A study conducted in Zambia registered 78% consistent condom use among discordant couples (S K Hira, 1997), while another study conducted in Rwanda registered an increase in the use of condoms from 4%-57% over a period of one year of implementing counselling and testing combined with follow up strategies (S. Allen, 2007).

Figure 3.27. Shows consistent correct condom use among discordant couples

There is a general belief that condom use can reach 100% consistent and correct use especially among risk population, discordant couples inclusive. This however depends on the presence of other services targeting the discordant couples perse. Discordant couples who are not reached with HIV related services tend to have low condom use, though other countries registered better results. Findings from a study conducted in 10 selected countries in Sub Saharan Africa showed that in Uganda, only 13% of the couples with no services used condoms at the most recent sex (Mishra, 2009)**.** This means that to have condom use percentages rise, a number of HIV related strategies should be designed and implemented as much as possible.

Finding the relationship between knowledge levels and condom use among the discordant couples tested the set hypothesis. See table below;

Table 3.15. Shows Prevention knowledge * Consistent correct condom use –cross tabulation

Count		How often do you use condoms		
		All time	Some times	Total
Which combination prevention is used to promote to protect the HIV -ve partner from HIV infection among discordant couples	Condom&HAART	2	0	2
	Condom&STI mgt	1	0	1
	HAART&STI mgt	1	0	1
	HAART&SMC	0	1	1
	SMC&STI mgt	1	0	1
	Condom&HAART&SMC	1	0	1
	Condom&STI mgt&SMC	2	0	2
	STI mgt&HAART&SMC	1	1	2
	Condom&SMC&STI mgt&HAART	37	12	49
Total		46	14	60

From the table above, findings show that 12 people with high knowledge level do not use condoms consistently while 9 of the people using condoms consistently did not score high in the knowledge level, meaning that condom use goes beyond knowledge; it includes other issues for example the willingness of both partners to use them, and existing myths about discordance among others; See table below:

Table 3.16. Shows reasons for not using condoms

Question	Response	Frequency	
		#	%
If not using condoms consistently, what are the reasons	Not applicable (use constantly)	46	76.7
	HAART/SMC/STI mgt is enough	3	5.0
	My spouse does not like condoms	5	8.3
	Discordance is by luck, God controls	6	10.0
	Total	60	100.0

From the table above, out of the 14 people who did not use condoms consistently, 3 believed that using other prevention strategies was enough for them as a couple. From the discussions, the researcher realized that these were couples where both partners did not enjoy using condoms; to the researcher, this was more of an excuse than reflection of the reality. 5 of the respondents expressed that their spouses did not like using the condoms, which is not about knowledge levels, its just about personal feelings. There has been a slogan, where some people say that you do not eat a sweet with its wrap-on, meaning, sex with a condom is not enjoyable. Challenging enough is that some people still believe that discordance is about luck, and unless God wills, then you do not sero-convert. The challenge is

that as long as there are people who reason like this, then the set goals for HIV infection reduction will always be compromised.

3.3.3. Conclusion

Since this study aimed at establishing the influence of HIV prevention practices over marital stability among sexually active discordant couples, An assessment of the level of HIV biomedical practices was the first objective of this study. all discordant couples with correct knowledge of HIV prevention strategies would be expected to practice all applicable HIV biomedical prevention strategies to safeguard the negative partner in the couple from HIV sero-conversion.

From the findings above, it is clear that the discordant couples have a good knowledge of the HIV biomedical prevention strategies, where 81.7% can mention all the four strategies of: Highly active antiretroviral therapy/treatment, consistent correct condom use, sexually transmitted infections management and safe male circumcision. However the knowledge level does not automatically translate into prevention practices as seen above.

The findings presented above also show that the level of practicing many of the proven HIV biomedical prevention strategies is relatively good. For example, 19 out of the 30 people living with HIV are enrolled on HAART, which is approximately 63.3% higher than the current HAART coverage in Uganda, which stands at 47% for the general population of People living with HIV. Secondly 21

out of the 30 men interviewed are circumcised, which is about 70%, close to the national target of 80%. Condom use among the interviewed couples stands at 76.7%, also not far from the national target, which is at 80% too. The only area that really scored low as seen above is management of sexually transmitted infections by the individual couples. 25% of the respondents do not even go for routine screening to detect and manage STIs in their infancy stage, 35% treat the STIs but never complete the dose as prescribed by the health workers, so only 40% of the discordant couples do treat STIs correctly as prescribed by the doctors. This is quite low compared to the HIV infection risk associated with untreated STIs among the sexually active discordant couples.

As seen above in the discussion, though it was hypothesized that with correct knowledge, all the couples would practice the applicable HIV biomedical prevention strategies, this is not the case parse, though applicable to some extent. Strategies like HAART depend largely on accessibility, availability and affordability though knowledge is the entry point. As shown above, some people will not practice the prevention strategy because of personal dislike, like the use of condoms, while the poor health seeking behaviours have highly compromised the STI management strategy.

3.4. SUB –SECTION THREE: INFLUENCE OF PRACTICED BIOMEDICAL PREVENTION STRATEGIES IN IMPROVING MARRIAGES OF SEXUALLY ACTIVE DISCORDANT COUPLES

3.4.1. Introduction

This section is based on the second objective of this study, which aimed at establishing the relationship that exists between HIV prevention practices and marital stability among sexually active discordant couples in Uganda. In this study, marital stability is measured by "worthiness of discordant couples' *sex life* and *quality of partner relationships*" within the selected couples. These are measured through scoring discordant couples individual perceptions and feelings as seen in the tables below; all the responses address one main question: "What relationship exists between practice of HIV biomedical prevention strategies and marital stability among sexually active discordant couples?" and responses are presented in the tables below. Data analysis is based on both the study objective mentioned above and hypothesis set at the start of this study which assumes that practice of HIV Biomedical prevention strategies improves both the sexual life and quality of partner relationships among sexually active discordant couples. There was a general question asked and the researcher got a general response of how the discordant couples feel about the influence of practicing HIV prevention strategies on their decisions to continue living together as discordant couples.

3.4.2. Discordant couples' Sex life scores

As said above, the sex life score is one of the measures used to evaluate the stability of the discordant couples' marriages. Three areas were measured comparatively. This was aimed at seeing how much improvement has been registered in terms of improved sex life resulting from the use of HIV prevention strategies among the discordant couples. See table below for the details.

Table 3.17: Shows sex life scores for discordant couples

Question	Response	Before prevention Frequency		After prevention Frequency	
		#	%	#	%
How frequently *did/do* you feel sexual desire now that you practice HIV prevention strategies	Regularly	0	00.0	17	28.3
	Fairly regular	11	18.3	25	41.7
	Once in a while	49	81.7	18	30.0
	Total	60	100.0	60	100.0
When you have sex with your partner, *did/do* you have negative emotional reactions, such as fear, disgust, shame or guilt even with the prevention practices	No	60	100.0	6	10.0
	Sometimes	0	00.0	54	90.0
	Total	60	100.0	60	100.0
Overall, how satisfactory to you *was/is* your sexual relationship with your partner with the prevention practices	Poor	41	68.3	5	8.3
	Fair	13	21.7	10	16.7
	Good	6	10.0	37	61.7
	Very good	0	0.00	8	13.3
	Total	60	100.0	60	100.0

From the table above, we realize that there is tremendous change registered in the sex life of the interviewed discordant couples after they built trust in the practiced prevention strategies. The results show that 70% of the respondents experience sexual desire either regularly or fairly regular as compared to 18.3% only before starting to practice prevention strategies. Additionally, overall poor sexual satisfaction decreased from 68.3% to 8.3% while very good sexual satisfaction moved from zero to at least 13.3%. However, the rate of partner's negative

emotional reactions such as fear, disgust, shame or guilt is still high even with the prevention practices. The findings presented in the table above show that this area of sex life only improved among 10% of the respondents only. This is a sign of a gap in counselling, the discordant couples should be re-assured that if HIV biomedical prevention strategies are used as a combination therapy, the risk of sero-conversion will be close to zero. This is a very important message that has to be well designed by the service providers as a contribution to the betterment of the discordant couples' sex life.

To further establish the relationship that exists between discordant couples' HIV prevention practices and their sexual life, the researcher had another question asked without linking it to the HIV prevention practices. This question was, "How is the sex life between the two of you". This question aimed at checking the reliability of the data presented in the table above. The responses to this question were cross tabulated with the HIV prevention practices results in in the urge of creating a clearer picture of the influence HIV biomedical prevention practices have over the quality of sexual life of discordant couples. See tables below for the findings, interpretations and discussions.

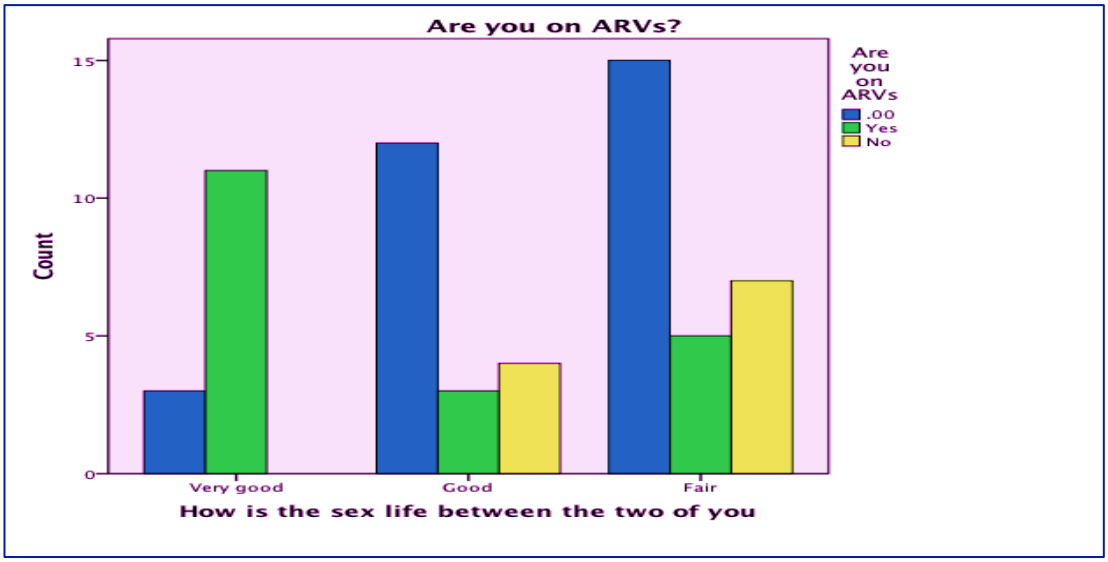
3.4.2.1. Sex life * Use of HAART

Table 3.18. Shows sex life between partners * use of HAART/ARVs- Cross tabulation

Count		Are you on ARVs			
		HIV-	Yes	No	Total
How is the sex life between the two of you	Very good	3	11	0	14
	Good	12	3	4	19
	Fair	15	5	7	27
Total		30	19	11	60

From the above cross tabulate, it is clearly shown that use of HAART has a direct impact on the quality of sex life; out of the 14 people who registered very good on the sex life scores, 11 are enrolled on HAART. See below for a visual illustration.

Figure 3.28. Shows sex life between partners * use of HAART/ARVs- Cross tabulation



The reports show that HAART corresponds with improved health status meaning that people enrolled on HAART regain their good health, sex life inclusive. Additionally, though there are no reports to back this up, during the discussions with the service providers, there was a concern that the health facilities and NACWOLA were registering reports of high sexual desires among the clients enrolled on HAART as compared to other groups of discordant couples in Bugiri district. The researcher attributes the improved sex life not only to the improved health status, but also to the confidence built between the partners, well knowing the prevention benefits of HAART.

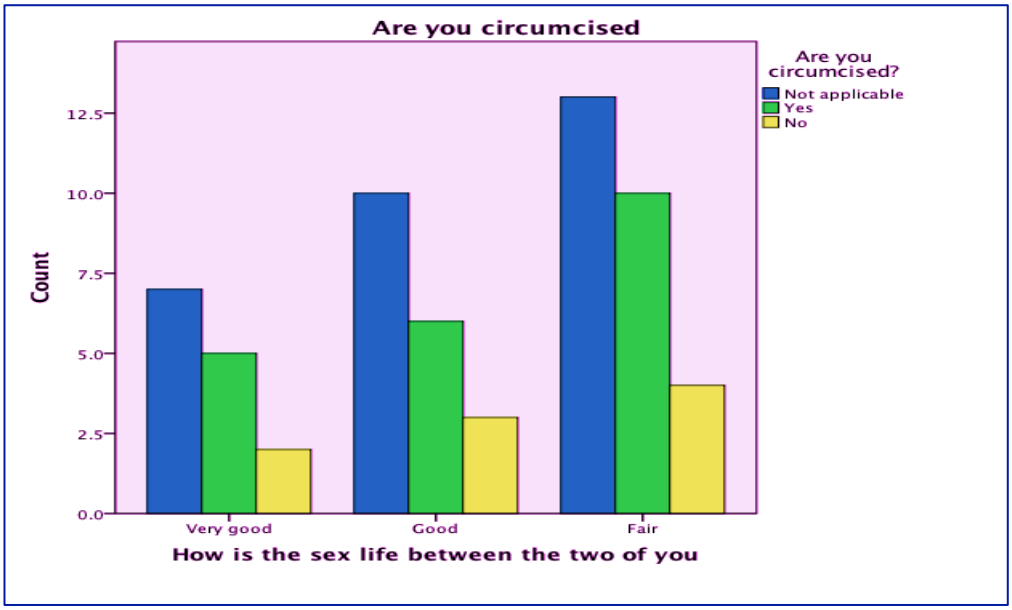
3.4.2.2. Sex life * Safe male circumcision

Table 3.19. Shows Sex life * Safe male circumcision –Cross tabulation

Count		Are you circumcised?			
		Not applicable	Yes	No	Total
How is the sex life between the two of you	Very good	7	5	2	14
	Good	10	6	3	19
	Fair	13	10	4	27
Total		30	21	9	60

From the above cross-tabulate, out of the 14 people who reported very good sex life, 7 are women and the other 7 are men. Now, out of the 7 men, 5 are circumcised. In terms of percentages, the simple interpretation is that 71.4% of the men reporting very good sex life are circumcised. This is evidence to show that circumcision boosts sex life among sexually active discordant couples. See visual illustration below.

Figure 3.29. Shows Sex life * Safe male circumcision –Cross tabulation



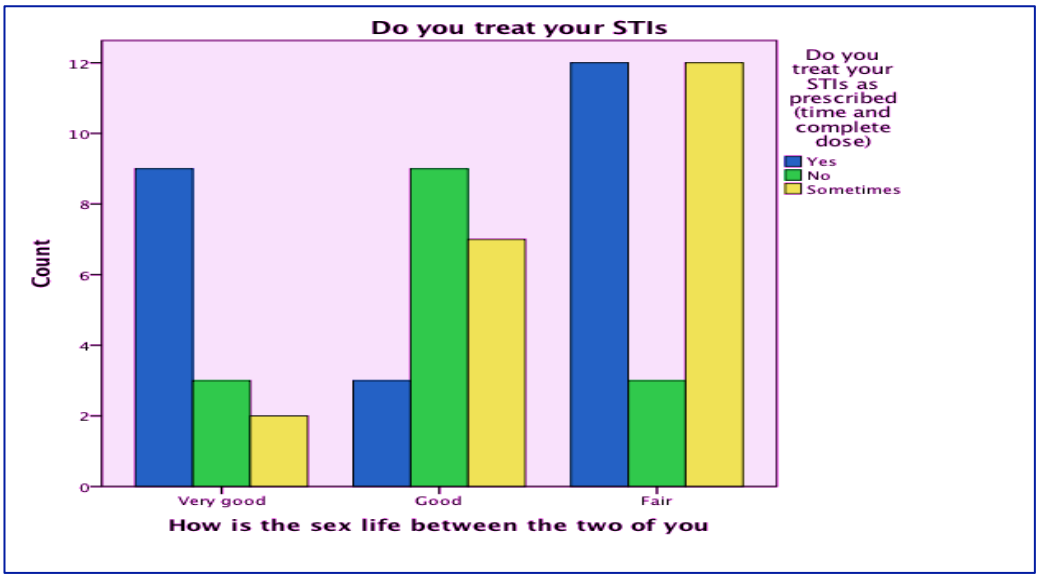
3.4.2.3. Sex life * STIs management

Table 3.20. Shows Sex life * STI management –Cross tabulation

Count		Do you treat your STIs correctly			
		Yes	No	Sometimes	Total
How is the sex life between the two of you	Very good	9	3	2	14
	Good	3	9	7	19
	Fair	12	3	12	27
Total		24	15	21	60

From the cross tabulate above, the results seem to make less meaning. For example, out of the 14 people who scored a very good sexual life, 9 are among those who treat STIs as prescribed by the health workers which is 75%; this a great figure, meaning that even when there are very few people treating STIs, it plays a role in improving their sexual lives. However; when look at those that scored fair (low), the majority are still those who have treated STIs well. This therefore means that on a general note, STI management improves the sexual life, but at different levels of very good, good and fair. See visual illustration below

Figure 3.30. Shows Sex life * STI management –Cross tabulation



It is logical to conclude that though treatment of STIs should ideally improve sex life, discordant couples so far do not attach a lot of value to it, and that could be the reason to why it has no major influence over their sex life. This analysis can be supported by the fact that the majority of the discordant couples do not treat STIs as expected. The researcher thinks that there is an information gap among the discordant couples as to how important STI treatment is in the control of HIV infections and general sexual life.

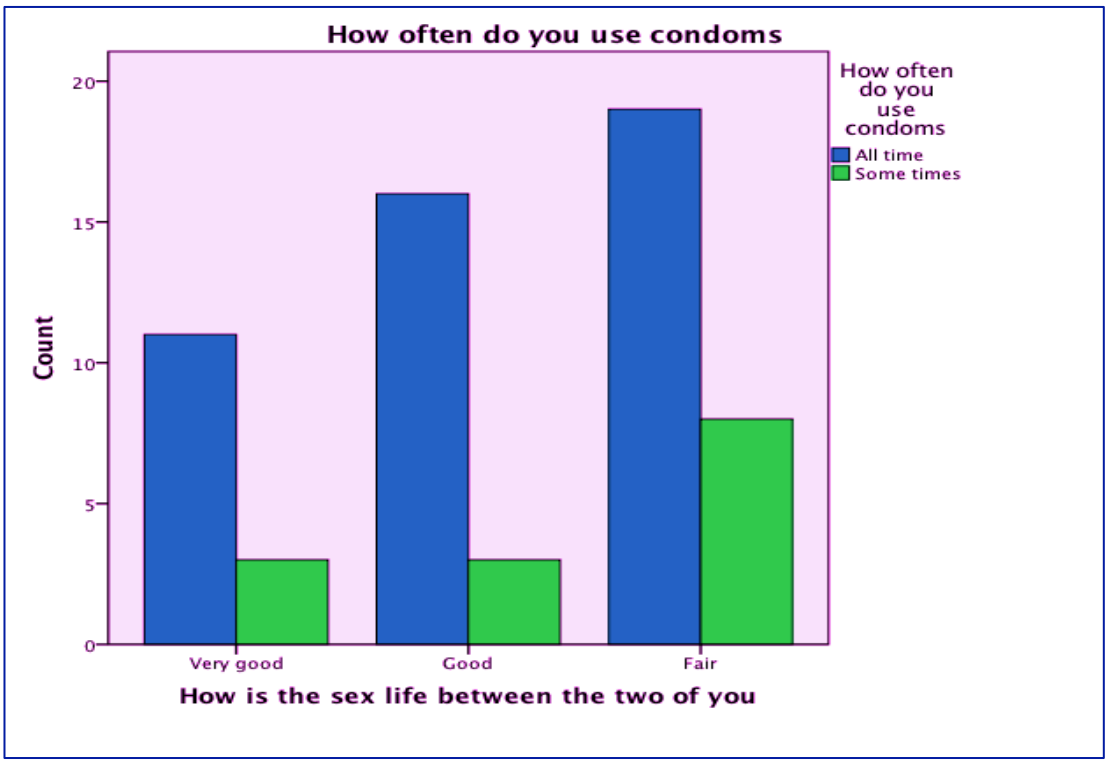
3.4.2.4. Sex life * Condom use

As seen earlier on, condoms seem to be the most trusted prevention strategy. The level of sensitization attained by the service providers could explain this. As compared to other strategies condom though part of the biomedical prevention strategies, can be interpreted socially. From the results presented below, we realize that only 3 people reported very good sexual life among those that do not use the condoms all the time, as compared to 11 people who reported using condoms always

Table 3.21. Shows Sex life * Condom use –Cross tabulation

Count		How often do you use condoms		Total
		All time	Some times	
How is the sex life between the two of you	Very good	11	3	14
	Good	16	3	19
	Fair	19	8	27
Total		46	14	60

Figure 3.31. Shows Sex life * Condom use –Cross tabulation



Therefore, practice of HIV biomedical prevention strategies enhances the sexual life of sexually active discordant couples. As seen above, the enhancement is not 100%, but it is fairly improved which should be appreciated and improved with time through implementing more discordant couples' focused programmes. Since these couples choose to continue living in sexually active marriages, betterment of their sexual lives is very crucial.

This is a descriptive analysis and as such some of the findings could be subjective.

3.4.3. Quality of partner relationships scores

3.4.3.1. Preamble

As discussed earlier, marital stability was measured partly by scoring quality of partner relationships among the selected discordant couples. This part therefore presents the impact of prevention strategies on partner relationships among sexually active discordant couples involved in the study. The sub question here is; "To what extent has the adoption and utilization of prevention strategies helped build discordant couples' partner relationships?" and the results presented below are responses from the interviewed discordant couples. The findings are thereafter interpreted and discussed using cross tabulations in a few instances.

Important to note is that though it would have been good to run cross tabulation using all the prevention strategies for all the dependent variables, this was not possible since that would lead to many figures (about 50 of them), which would ideally make the analysis more complex and complicated. The researcher therefore zeroed down on condom use only since it is applicable to all the partners in the discordant couples. STIs would be used too, but the level of STI treatment is very low, so the researcher assumed that comparing STIs treatment with the dependent variables would easily create a false impression. Therefore, the researcher only sampled a few measures of quality of partner relationships for cross tabulation. This also allowed the researcher to save space and time.

There are no similar studies completed on the influence of HIV biomedical prevention strategies over marital stability of discordant couples, so the discussion part is solely built on the study findings.

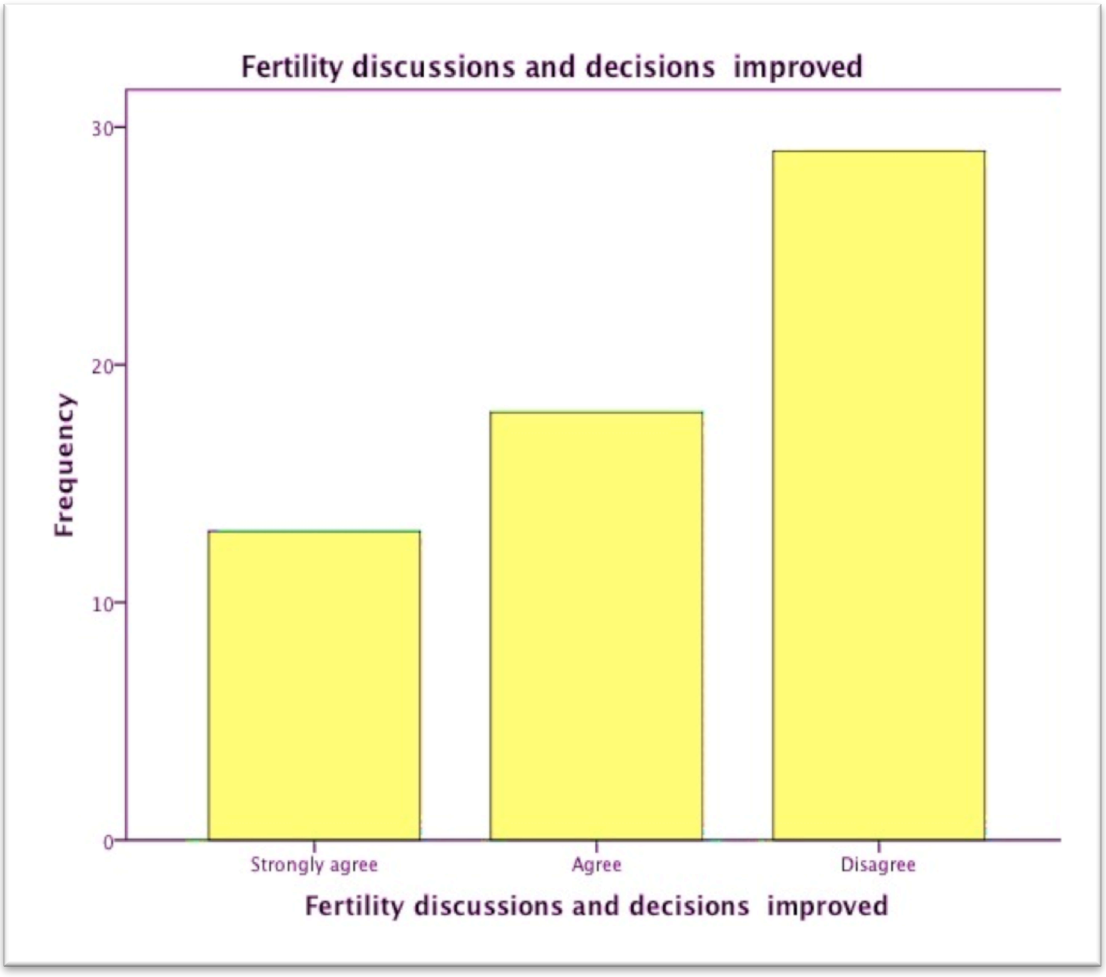
Table 3.22: Shows quality of partner relationship frequency table

Question	Response	Frequency	
		#	%
Fertility discussions and decisions improved	Strongly agree	13	21.7
	Agree	18	30.0
	Disagree	29	48.3
		60	100.0
The degree to which we plan the future together improved	Strongly agree	28	46.7
	Agree	20	33.3
	Disagree	12	20.0
	Total	60	100.0
The way disagreements are settled	Strongly agree	8	13.3
	Agree	20	33.3
	Disagree	16	26.7
	Strongly disagree	16	26.7
	Total	60	100.0
The amount of consideration shown by my spouse improved	Strongly agree	42	70.0
	Agree	18	30.0
	Total	60	100.0
The manner in which affection is expressed between me and my spouse improved	Strongly agree	52	86.7
	Agree	5	8.3
	Disagree	2	3.3
	Strongly disagree	1	1.7
	Total	60	100.0
How my spouse reactions when I share feelings concerning HIV improved	Strongly agree	44	73.3
	Agree	9	15.0
	Disagree	5	8.3
	Strongly disagree	2	3.3
	Total	60	100.0
Number of separation reduced	Strongly agree	39	65.0
	Agree	16	26.7
	Disagree	5	8.3
	Total	60	100.0
Stigma from my spouse lowered	Strongly agree	57	95.0
	Agree	3	5.0
	Total	60	100.0

3.4.3.2. Fertility discussions and decisions improved

From the table above, 21.7% and 30% of the interviewed couples s*trongly agree* and *agree* respectively, that prevention strategies have played a role in improving their fertility discussions and decisions. On the other hand, 48.3% disagreed with this statement; see the visual illustration below:

Figure 3.32. Shows level of fertility discussions and decisions



As said earlier, the fertility decision-making process has been a serious issue among discordant couples. Ideally, planning to have many children is a sign of marital stability among ordinary couples; it means the couples are willing to live together and raise their children for as many years as possible. But when it comes to this unique kind of couples, deciding to stop having children is more important. However, culturally, there are no such discussions about how many children to have and when. This culture could not be broken overnight, but with continuous access to prevention information and all other kinds of counselling, the couples have slowly learnt the importance of discussing fertility related issues.

Evidence can be drawn from two areas, (1) 13% of the interviewed discordant couples have no children completely, and when asked about their plans, some of them confessed to have agreed not to have children in the meantime. Though these were couples with at least some level of education, it does not mean the rural uneducated people cannot adopt it. (2). Though the majority of the uneducated couples have many children, some of them talked about having stopped at the last child born. This can be related to the fact that the majority of the last born children were over 3 years, meaning there is a possibility of not having more children; rural couples tend to give birth to children almost every year, space of three years may stand to mean no more children.

The researcher probed on why a fairly big number of the discordant couples seemed to refute the fact that prevention strategies had helped them adopt more

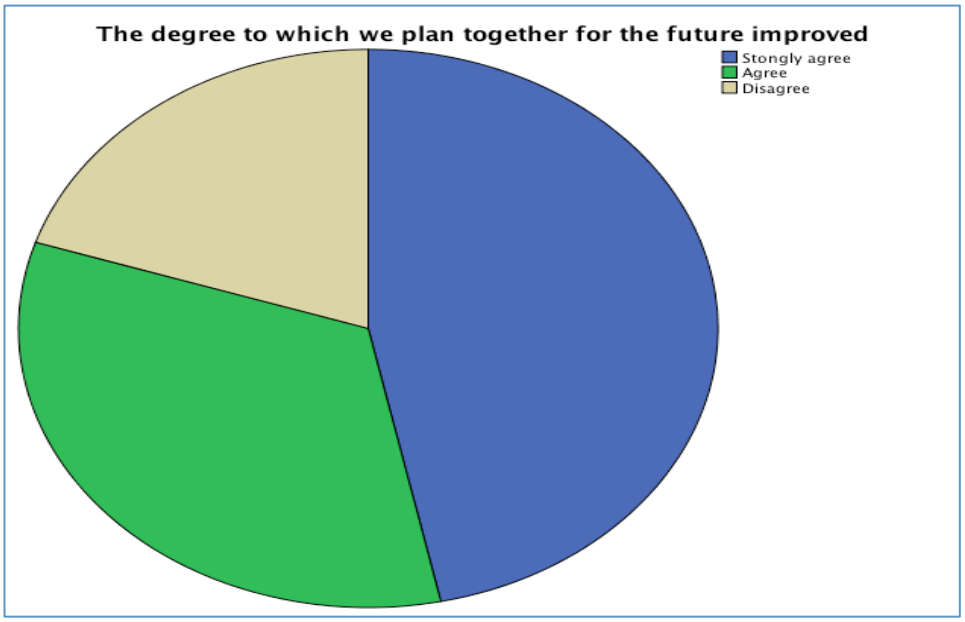
meaningful fertility decisions. The community counselling aide revealed to the researcher that though couples use condoms, it is not their desire and condoms have been emphasized for family planning purposes among the discordant couples. To the CCAs, their refusing to accept the benefits of the prevention strategies is quite subjective. To the researcher however, this is something to do with feelings and attitudes that cannot be changed in a short time. Hopefully, within a few more years, there will be more positive responses.

Based on the above, it is correct to conclude that the practice of prevention strategies has a bearing on the quality of partner relationships among the sexually active discordant couples.

3.4.3.2. Couples' future planning

From the frequency table above, the findings show that 46.7% and 33.3% of the discordant couples *strongly agree* and *agree* respectively that the practice of prevention strategies has helped them improve the way they view the future; they are now planning together for more years to come. However, 20% do not seem to believe that such practices have brightened their hope to live together for the coming years. See visual illustration below.

Figure 3.33. Shows Couple future planning



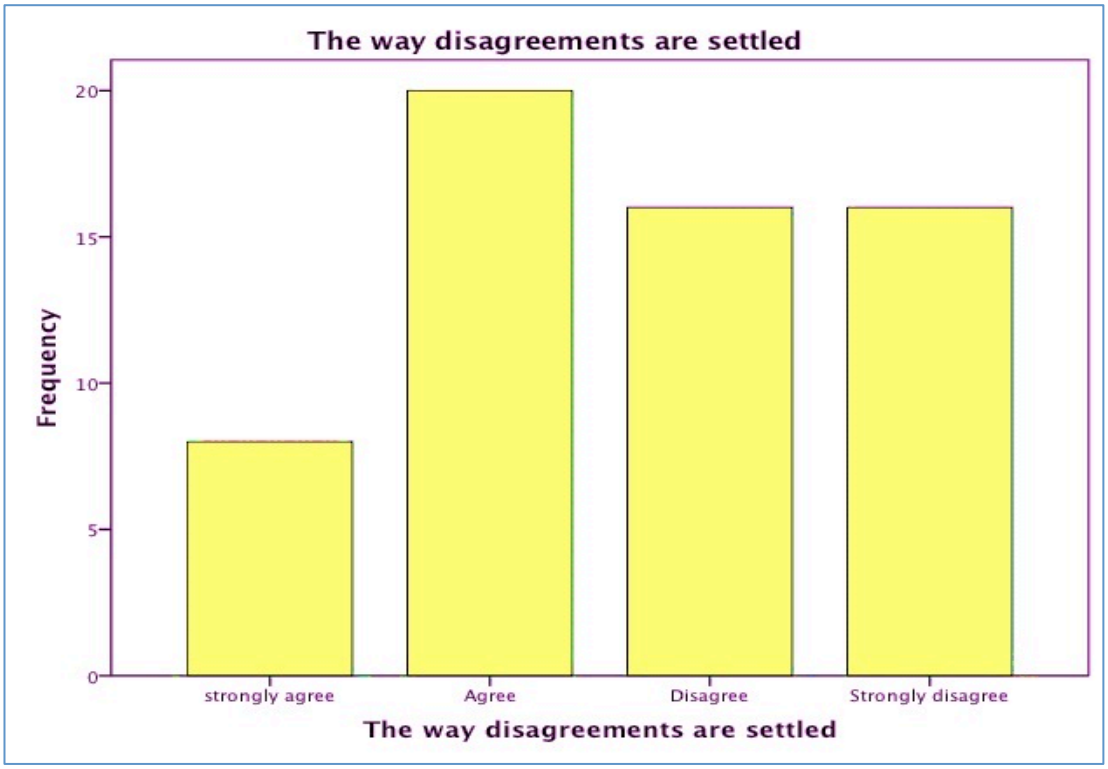
Based on these findings where 80% of the discordant couples agree to the benefits of prevention practices over their future plans, we confirm the hypothesis set at the start of the study, which assumed that practice of HIV biomedical prevention strategies plays a role in improving both the sexual life and quality of partner relationships, and so higher chances of marital stability among sexually active discordant couples in Uganda.

3.4.3.3. Disagreements' settlement

Results from the frequency table above show that 13.3% and 33.3% of the study respondents strongly agree and agree respectively that HIV prevention practices have improved the way they settle disagreements in their marriages; however, on the other hand, 26.7% disagree and 26.7 strongly disagree respectively, see

illustration below.

Figure 3.34. Shows disagreement settlement



To the researcher, variables that score below 50% are described as being below average. In this case, the use of HIV biomedical prevention strategies has scored below average in helping to improve the way disagreements are settled. Though the rate of separation decreased among the discordant couples, HIV related disagreements still exist and couples are still struggling to find a coping mechanism so as to improve the way disagreements are settled. It is important to note, that this does not mean that the couple's marriages will dissolve because of this one issue. They will still struggle to live together amidst those disagreements, since there are many other factors that motivate their stay.

3.4.3.4. Amount of consideration shown by my spouse

From the frequency table above, results show that 70% of the respondents strongly agree and 30% agree that the amount of consideration from their partners greatly improved. This means that all the partners in these couples agree that the consideration shown to them by their partners has greatly improved with the use of prevention strategies. See clear illustration below:

Figure 3.35. Shows amount of consideration shown by spouse

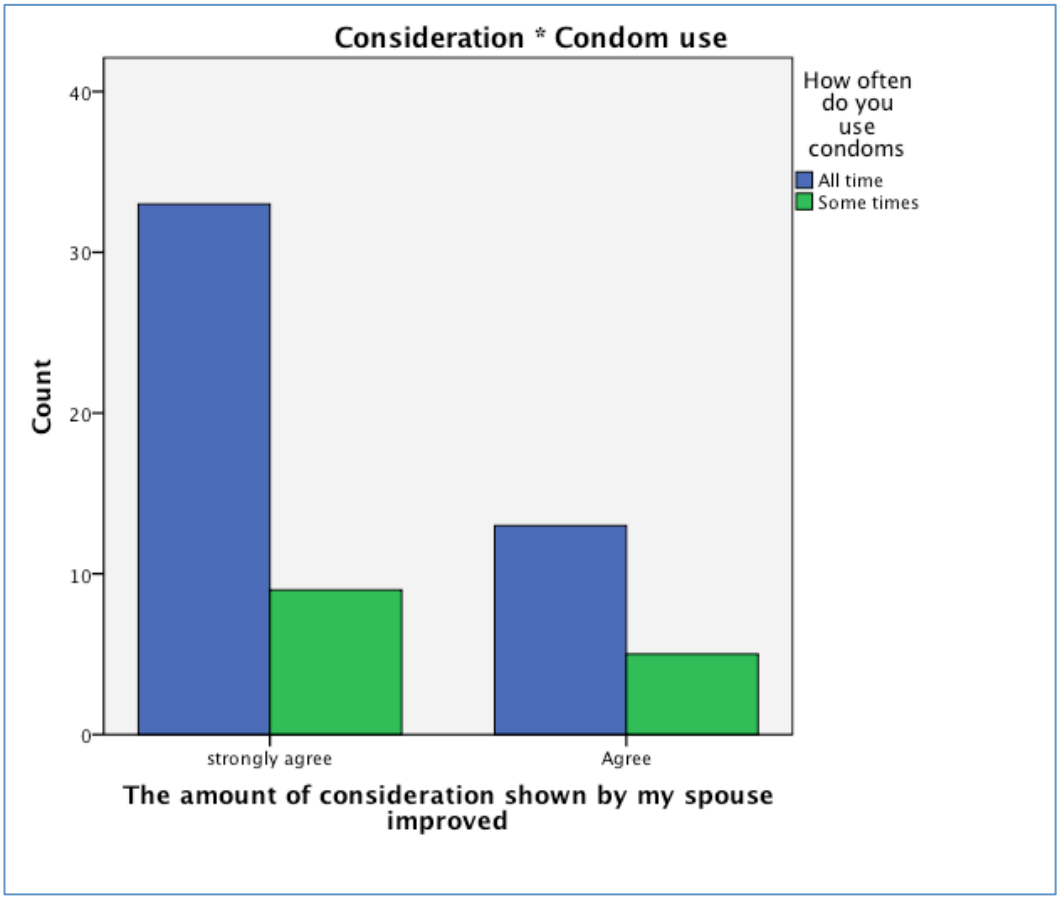
The researcher went ahead to establish the relationship between condom use and amount of consideration shown by the partners in the discordant couples as part of re-checking the scores above; a cross tabulation was ran and analysis is shown below:

Table 3.23. Shows Amount of consideration * Condom use

Count		How often do you use condoms		
		All time	Some times	Total
The amount of consideration shown by my spouse improved	Strongly agree	33	9	42
	Agree	13	5	18
Total		46	14	60

The figure below is a visual presentation of the findings in the table above;

Figure3. 36. Shows Amount of consideration * Condom use



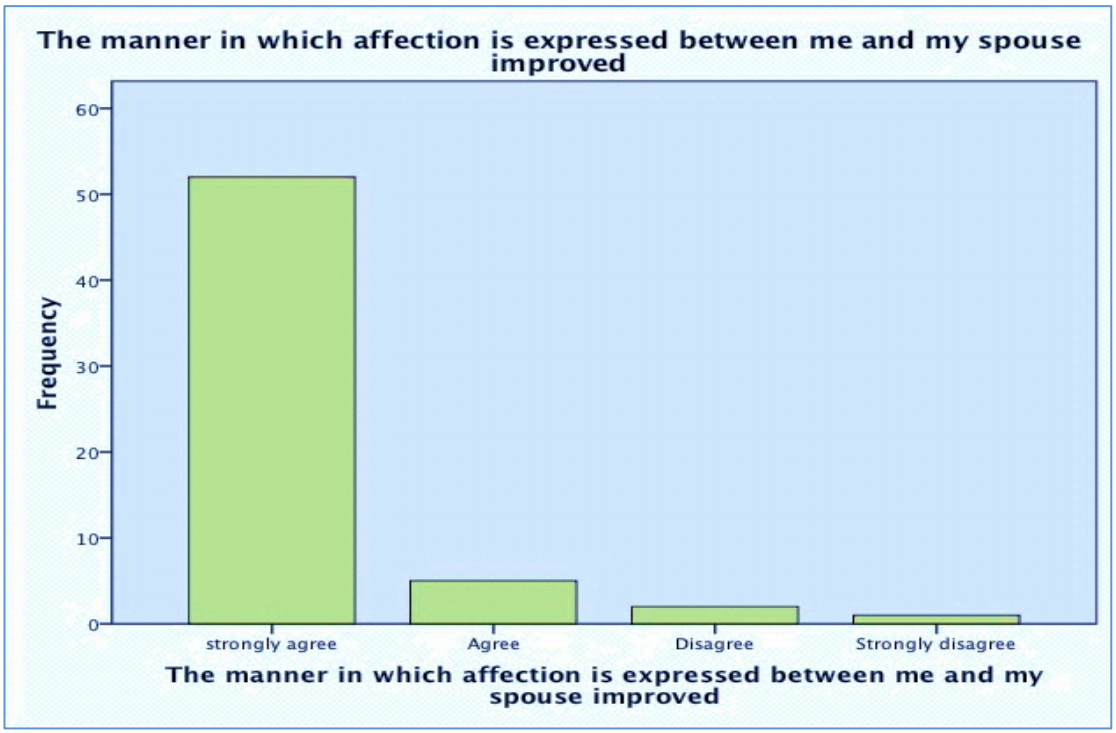
From the table above, 33 (79%) out of the 42 people strongly agreed to use condoms all the time, which further proves the influence of HIV biomedical

prevention practices over quality of partner relationships (marital stability measures).

3.4.3.5. The manner in which affection is expressed between spouses

The frequency table above shows that 86.7% of the respondents strongly agreed that use and practice of HIV biomedical prevention strategies helped them receive improvement in the way affection is expressed by their spouses in particular. The affection here includes love, friendliness, empathy and care provided by the partners within the discordant couples. See below for illustration:

Figure 3.37. Shows expression of affection from the spouse

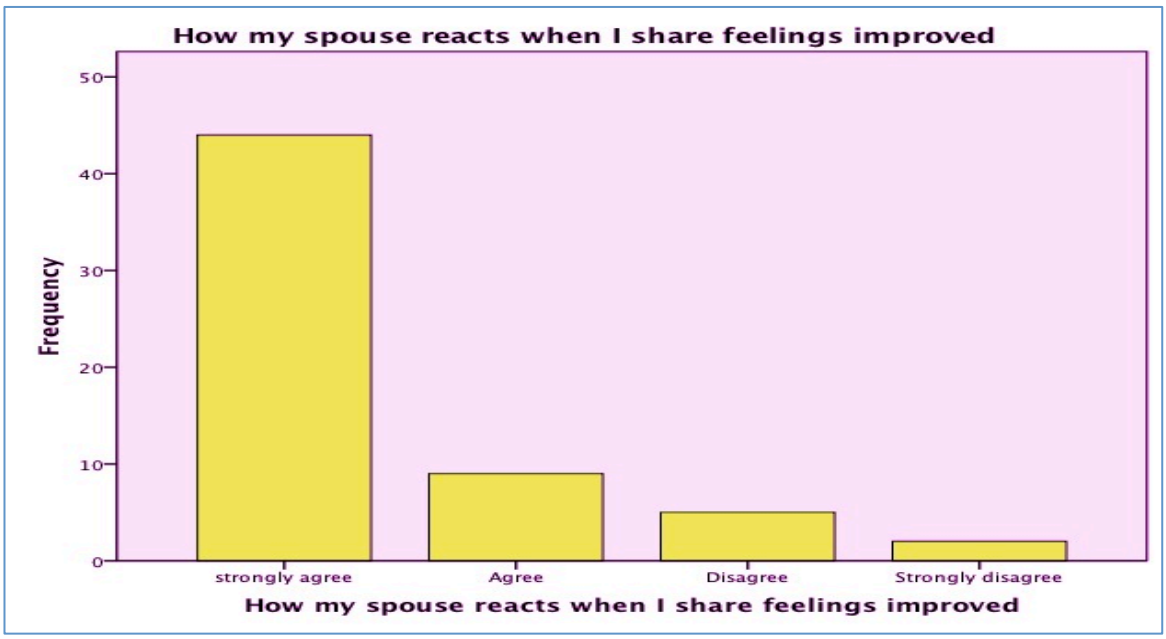


From the discussions with the discordant couples in particular, the researcher came to realize that affection was very important for the success and stability of discordant couples' marriages. Many of the study respondents confessed that even when they disagree, separate, and face all sorts of challenges, what brings them together again is the affection; affection expressed by the spouse. With that background, this shows how prevention strategies have played a key role in strengthening and promoting marital stability among sexually active discordant couples.

3.4.3.6. Reaction to emotional feelings

The findings from the frequency table above show that 73.3% and 15% of the respondents strongly agreed and agreed respectively. 8.3% disagreed and 3.3% strongly disagreed. The simple interpretation is that over 88% of the respondents agree that the practice of HIV biomedical prevention strategies has helped them improve the way their spouses react when they share feelings related to HIV status visa vie the challenges of living in a discordant relationship. Though it is usually assumed that only those with HIV will have emotional problems, it is actually both the partners; so this is applicable to both HIV negative and HIV positive respondents.

Figure 3.38. How my spouse reactions when I share feelings concerning HIV improved

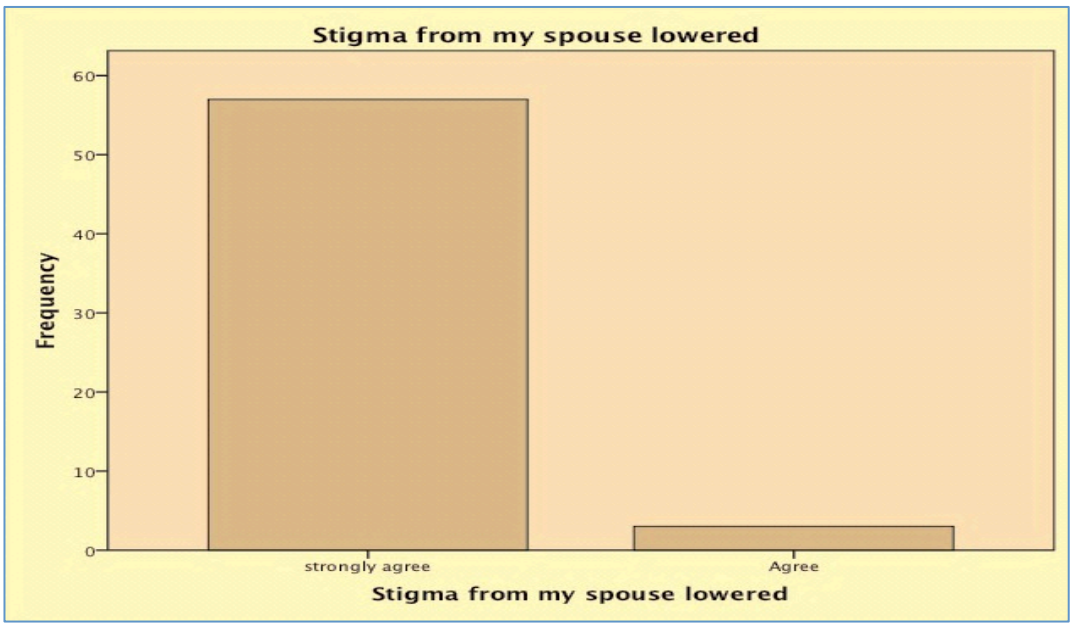


From the above, it is clear that practice of HIV prevention strategies directly impacts on the quality of partner relationships, and so does to the possibility of marital stability among the sexually active discordant couples.

3.4.3.7. Reduced stigma

The frequency table above shows that 95% of the respondents strongly agree that stigma from their spouse has reduced. The rest (5%) although do not strongly agree, do not dispute this statement either; they actually agree though not strongly. See the chart below for a visual illustration:

Figure 3.39. Shows level of stigma reduction from spouse



As seen earlier on, stigma is a dangerous thing that breaks marriages so easily. All the interviewed couples confessed that they had experienced stigma at one point or the other (refer to frequency table –social demographic and other characteristic of respondents, section 3.2). However, after benefiting from a number of HIV prevention strategies, the couples confess a great reduction in stigma from their own spouses. It is not completely wiped out, but reduced to a manageable level, the couples said.

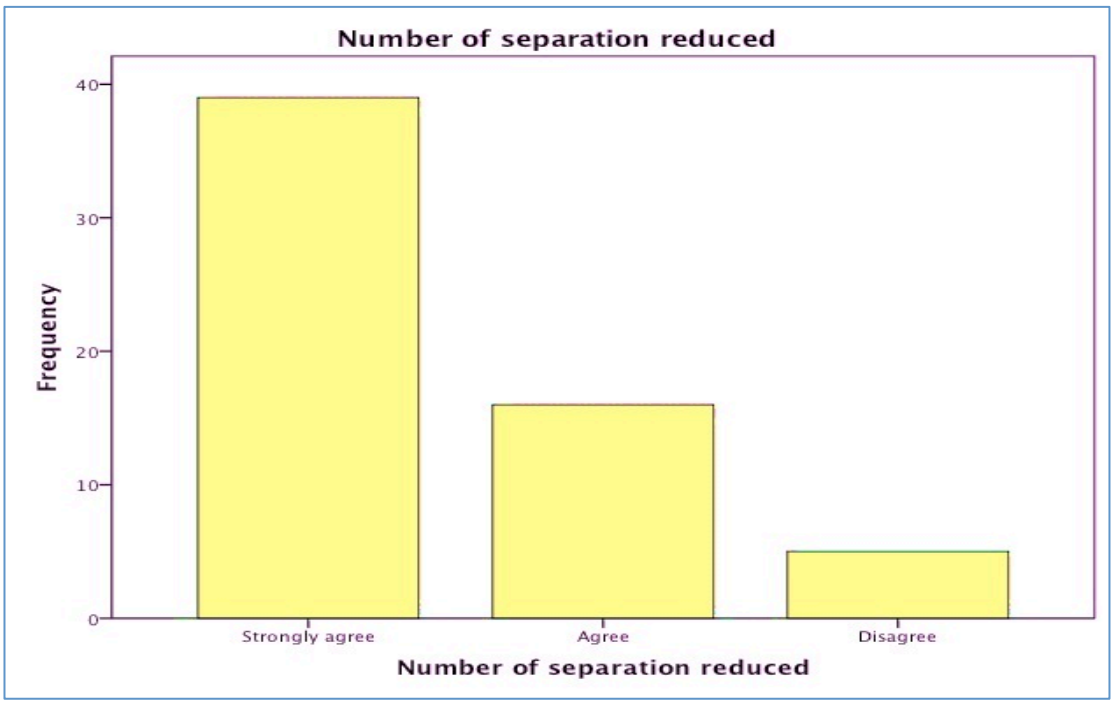
Having 95% of the respondents strongly agreeing to this statement gives an exciting finding. During the discussion, the couples however complained about external stigma, which they said had affected their social livelihood within the communities. What is interesting is that the majority ended the discussion with a positive note; stigma from the spouse is more hurting than that from others.

Based on the above, the researcher confidently writes that the practice of HIV biomedical prevention strategies has played a very important part in improving the quality of partner relations which is assumed to translate into marital stability among sexually active discordant couples.

3.4.3.8. Number of short lived separation

The frequency table above shows that 39 (65%) of the respondents strongly agreed that the practice of HIV prevention strategies has helped them reduce the frequency of separations, 16 (26.7%) agree to the statement too, but 5 (8.3%) disagree. see the chart below for a visual presentation of the above:

Figure 3.40. Shows number of separations



As we remember, discovery of HIV discordance increased the number of separations from 45% of the couples to 95%. Though separations still exist among the discordant couples, the above finding is proof that it has tremendously decreased, hence showing a relationship between prevention practices and quality of partner relationships.

3.4.4. Conclusion

From the above findings, the set hypothesis, which assumed that the practice of HIV Biomedical prevention strategies improves both the sexual life and quality of partner relationships among sexually active discordant couples is confirmed. As it has been seen above, the majority of the score areas improved greatly.

3.5. OTHER FACTORS THAT HAVE CONTRIBUTED TO MARITAL STABILITY AMONG DISCORDANT COUPLES

3.5.1. Introduction

From the findings above, we realize that practice of HIV biomedical prevention strategies did not have 100% influence over the discordant couples' decisions to continue living together. This part therefore presents other factors that play a role in strengthening the marriages of sexually active discordant couples amidst the challenges associated with HIV discordance.

A list of common factors picked from the reviewed literature was presented to the discordant couples during data collection. Couples were asked to select only one reason that was believed to be most outstanding to them, without which, there would be higher chances of marital dissolution. The responses given below do not mean that marriages would end automatically if such factors were lacking in those couples, but instead gives an overview of other sources of marital strength for these couples. As explained above, each respondent only chose one factor so as to ease data analysis. Since this part is only looking at supplemental factors to HIV biomedical prevention strategies, the researcher needs to get all the factors applied to each respondent in details. Nevertheless, the presented data gives a clear picture of the other factors that influence marital stability among discordant couples in Uganda.

3.5.2. Findings

See table below for the findings, and thereafter followed with interpretations.

Figure 3.41. Shows other factors that influence marital stability

Question	Response	Frequency	
		#	%
What are the other factors that have influenced your stay together	Religion does not allow separation	11	18.3
	We have lived in this marriage for long period, HIV discordance cant lead us to separation	7	11.7
	We can separate because of the children we have together	10	16.7
	I can not afford to stay out of the marriage because I have no job and do not own property	4	6.7
	Culture of our families can not allow us separate	15	25.0
	Love has kept us together	3	5.0
	The support from counsellors has strengthened our decisions to live to together	10	16.7
	Total	60	100.0

Culture; From the table above, the majority of the people (25%) mentioned culture as being key in their decisions to continue staying together. Culture here includes tribal or clan norms, community obligations and family ties. The researcher thinks this was a serious issue since over 71% of the respondents are living in rural areas where cultural obligations still hold.

Religion; The findings show that a big number (18%) of the discordant couples believe and respect the religious rule of no divorce. From the social demographic frequency table, it was revealed that 93% of the respondents believe in the main religions practiced in Uganda; protestant, catholic, Pentecostal and Islam, where none of these religions permit divorce.

Counselling; This study revealed that counselling matters a lot for marital stability among HIV discordant couples. The respondents made a mention of counselling services that they think had helped them strengthen their marriages. Though different service providers were targeting discordant couples in different ways, they were more appreciative of those that were using approaches that involved community counselling aides, Network support agents, peer educators and static psychosocial support groups, where the couples had a chance to interact and share challenges as a family.

***Children*;** The other issue revealed by 66% of the respondents, as being very important in keeping the couples together is the number of children. As discussed earlier on, children usually bond the husband and wife. The more the children become, the stronger the bond.

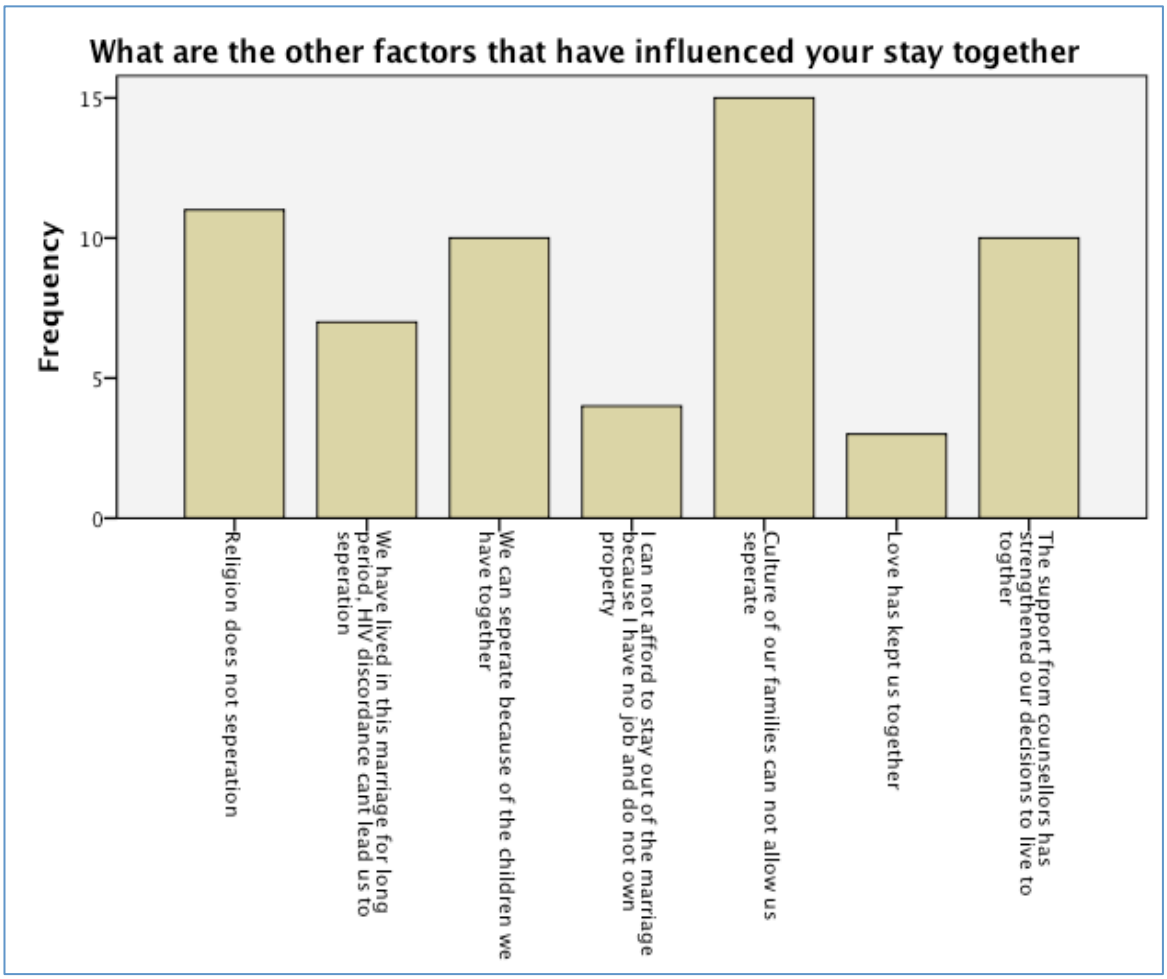
Length of marriage; In addition to the number of children, 11% of the respondents mentioned the length of marriages as something that has helped strengthen their marriages amidst HIV discordance challenges. The number of years, was not discussed though.

Economic factors; As seen from the table above, economic factors for women matter a lot; many of them cannot afford to separate from their husbands even if they really deemed it necessary since they do not own any resources like money, business, land, or farm animals.

Love; At the establishment of the study, the researcher thought that this would lead the list; it is unfortunate it is rated lowest. To the researcher, all those factors mentioned above make a lot of meaning, but where there is no love, they can easily be broken, and life will continue. She is tempted to think that this was mentioned as many times as it ought to have been, due to the closed culture where mentioning the word love is considered improper.

The chart below gives a visual illustration of the above findings

Figure 3.42. Shows other factors that influence marital stability among discordant couples



3.5.3. Conclusion

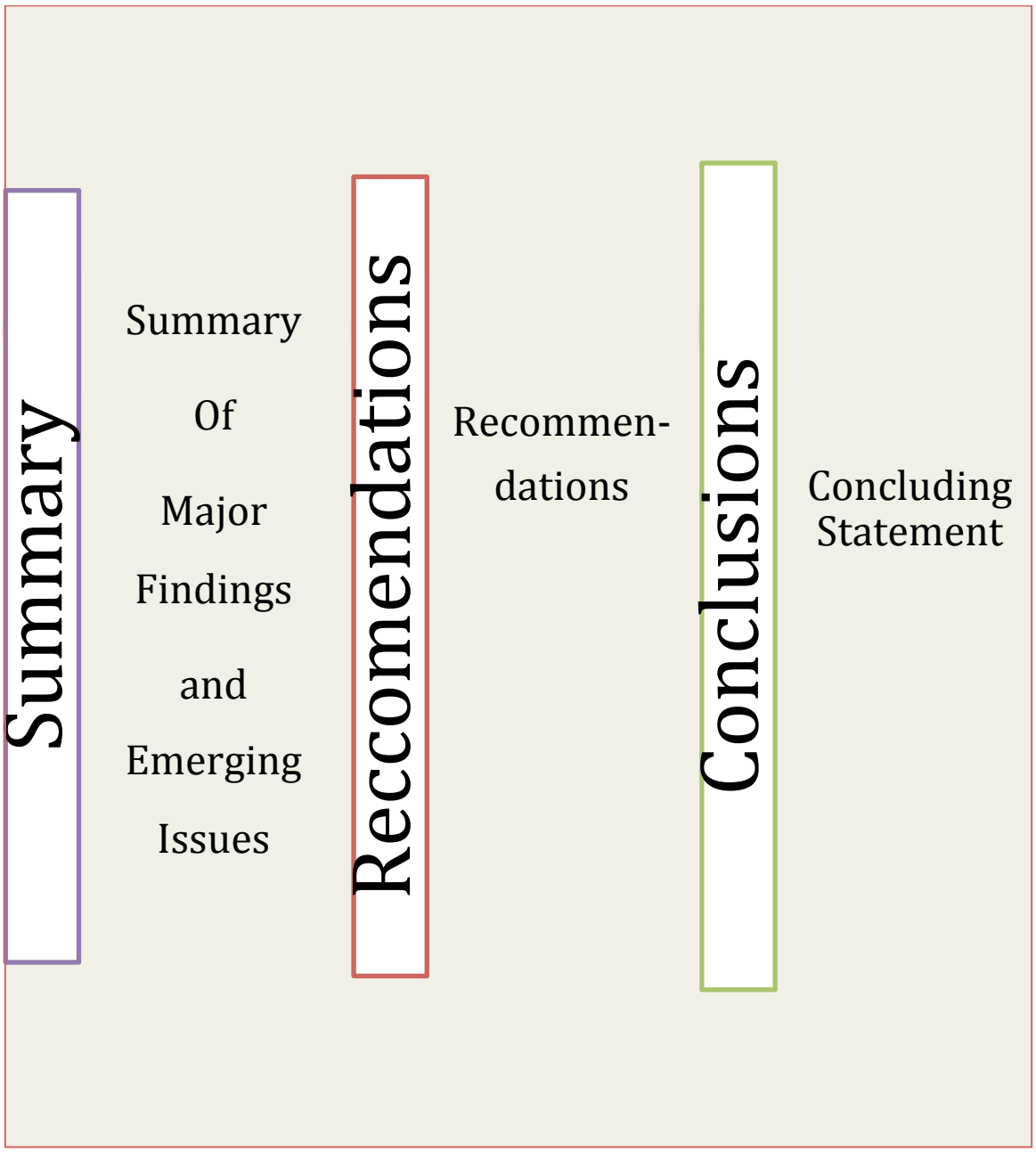
At the establishment of the study, it was hypnotized that religion, number of children and love do influence discordant couples' decisions to continue living together in sexually active relationships withstanding all other challenges associated with HIV discordance, however; though religion and number of children matter a lot, love is to some extent not a serious factor as per the findings from the discordant couples seen above.

Findings show that the couples already have coping mechanisms in place that support and strengthen their marital decisions. It is therefore important for the HIV biomedical prevention strategies' service providers to ensure that the above are reinforced as part of a comprehensive programme addressing marital stability among discordant couples.

CHAPTER FOUR:

SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

4.0. SYNOPSIS



4.1. INTRODUCTION

This chapter presents the summary of the major findings emerging issues, recommendations and conclusion. The summary presents a synthesis of key emerging issues from which the recommendations are picked and on which the concluding statement is based.

4.2. SUMMARY OF MAJOR FINDINGS AND EMERGING ISSUES

The findings show that 71.1% of the couples that have come out to share about their HIV discordance status live in rural areas, with low education and probably with no salaried jobs. This reveals a big gap of low disclosure among the so-called "educated, classy white collar job holders". Uganda has implemented a programme supporting all government institutions and Civil Society Organisations to develop and implement HIV work place policies. These policies are aimed at increasing openness and reducing stigma and discrimination of any kind at workplace, but the low response from the educated and white collar job holders shows that there is still a problem with disclosure/openness.

The other finding from this study is that 90% of discordant couples are aged between 30 and 49 years, this is a very important finding for the programmers not to be age blind when designing projects and or programmes targeting discordant couples. 30-49 years of age means that these couples are still in a position to bear

children which has to be addressed, can still involve in extra marital sex, can re-marry, and have many years to live, in case of no accidental deaths.

Something interesting about these couples, is that though both women and men equally contribute to the household income, the health decisions are primarily left to the men; this could be culturally designed, where men are treated as the heads of household, and therefore vested with the responsibility of decision making. This means that to have good health programme outcome for discordant couples, men have to be highly involved.

The other emerging issue within the discordant couples is the issues of fertility decisions. 65% of the couples have more than 4 children. Though not all those children were born after the discovery of HIV discordance, the information from the key informant interviews reveals that on average 2 children were born after one of the parents tested HIV positive especially among couples with no or only primary education. This leads us to two issues; 1. In case it is the woman who is HIV positive, in the given discordant couple, having children compromises her health status in general, which undermines the principles of positive living. 2. The presence of children born after the discovery of HIV discordance is evidence of low levels of consistent condom use among discordant couples, which in its own undermines the prevention efforts.

Additionally, this study reveals that the discovery of HIV discordance causes

many families to experience disagreements that end up into separation; 95% of the couples experienced separation after the discovery of HIV discordance compared to only 45% that had experienced separation prior to HIV discordance. Though this is short lived, it is important to note that any kind of separation affects the general being of these marriages, hence impacting on their assumed stability.

There is high HIV prevention knowledge levels among the discordant couples where 81.1% of the respondents mentioned all the four HIV biomedical prevention strategies: Highly active antiretroviral therapy, management of sexually transmitted infections, safe male circumcision and consistent correct condom use. This has influenced the prevention practices to some extent, since no action can be taken without prior information. HIV prevention knowledge should therefore be credited for being the entry point into the HIV prevention practices among sexually active discordant couples.

It was hypothesized that all discordant couples in the sexually active marriages practice all applicable HIV biomedical prevention strategies as long as they have the correct knowledge. The simple interpretation here is that at least 81% of the discordant couples would practice all the applicable HIV biomedical prevention strategies from the list of; HAART, STIs management, SMC and Condom use. However, as seen in the text above, the reality is quite different. Only 19 (63%) of the 30 people living with HIV are enrolled on HAART, 21 (70%) men out of 30 are circumcised, 46 (76%) people use condoms all the time out of 60 and only 24

(40%) out of the 60 people do treat STIs correctly as prescribed by the health workers. A mere glance at the figures above clearly shows that not even a single HIV biomedical prevention strategy registered a number or percentage equivalent to the knowledge levels of 81%

It is therefore important to note that practices do not only depend on knowledge level, which is assumed to directly translate into demand for services or access to the applicable prevention strategies. So far, some strategies like HAART have a strict procedure and are faced by challenges of inadequate supplies, regular stock outs which are due to low funding, and a weak system. So even with the correct knowledge, not all people will be enrolled on HAART until the government of Uganda attains a level where the country can sustainably supply ARV drugs to all those in need. As seen above, condom use also involves willingness to use the condoms by both partners, while STIs management is compromised by the poor health seeking behaviours.

All in all, knowledge is very important since without it, people will not know, and therefore not seek the available HIV biomedical prevention practices; however other factors that influence prevention practices like peoples' attitudes, accessibility, availability, affordability and cultural factors should be addressed too, so as to improve the utilization and practice of the proven HIV biomedical prevention strategies.

From the findings, it is clear that there is tremendous change brought about in the sexual lives of the interviewed discordant couples, which is believed to have resulted partly from the practiced prevention strategies. The results show that 70% of the respondents experience sexual desire either regularly or fairly regularly as compared to 18.3% only before starting to practice prevention strategies. Additionally, overall those with poor sexual satisfaction decreased from 68.3% to 8.3% while those with very good sexual satisfaction moved from 00% to at least 13.3%. The findings however show that the rate of partner's negative emotional reactions such as fear, disgust, shame or guilt did not change a lot as expected: only 10% of the respondents reported an improvement so far. This shows a need for more sensitization of the discordant couples about the effectiveness of the proven prevention strategy as a combination therapy. There should be no reason for worry if there is good adherence to HAART and at the same time using of condoms for example.

Eight (8) areas of partner relations were assessed including: fertility discussions, degree to which couples plan the future together, the way disagreements are settled, the amount of consideration shown by spouse, manner in which affection is expressed between spouses, how spouse react when a partner shares feelings concerning HIV, frequency of separation and level of stigma from spouse. In all those areas of partner relationships, all the measures scored above 50% improvement apart from the way disagreements are handled. This means there is

great improvement brought about with in the discordant couples by the practice of a number of HIV prevention strategies.

Though HIV biomedical prevention strategies have an influence over marital stability of discordant couples, it is important to note that there are other factors that equality contribute to the stability of HIV discordant relationships and these include: religion, number of children, love, length of marriage and cultural norms.

4.3. Recommendations

Drawing from the findings, discussion and conclusions from this study, the following recommendations are proposed:

1. Ministry of Health with support from all other line ministries should come up with a better strategy in addition to the existing HIV workplace policy to promote HIV status disclosure and openness among the professionals in both government and civil society organizations

2. The programmers should try as much as possible when designing interventions for HIV discordant couples not to be age blind. The majority of the discordant couples are still youthful, meaning; still sexually active, within the reproductive age, energetic to work and can as well remarry in cases of marital breakups. That should all be put into consideration

3. Interventions designed for discordant couples should not only target people living with HIV, as it is the case currently at many service points. The HIV negative partners need equal attention since they are directly affected by the HIV discordance situation within these couples, hence equally sharing the burden of discordance

4. Activities targeting discordant couples should empathize male involvement. From the findings, only 2 of the 30 women made personal health decisions; the rest waited for their husbands to do that on their behalf, hence a learning point for programmers

5. Government of Uganda with support from development partners should train discordant couples' specific marriage counsellors, since these couples have a unique set of issues that are quite different from the ones experienced by the ordinary couples

6. The HIV biomedical prevention strategies should be promoted as a combination strategy and all the strategies equally advertised to the couples so that the couples can make appropriate choices from the available strategies based on correct knowledge.

7. Ministry of Health should allocate a slot of HAART for all HIV positive people living in discordant couples as a priority group. Lessons should be

learned from the current prevention of mother to child programme where pregnant women with HIV are a priority group and given special attention so as to curb HIV infections to their unborn babies.

8. Ministry of health should ensure no condom stock outs; condom is the most popular and accessible prevention strategy that should be made available at all times, free of charge to all the discordant couples in the country

9. Uganda AIDS Commission should allocate some funding to the local NGOs working with the discordant couples. NACWOLA was in a funding break during this study, meaning the discordant couples were not meeting for routine counselling and other kinds of psychosocial support activities. Breakdown in such basic activities, does not only affect their emotional states, but puts prevention efforts and their marriages at stake, since they need continues counselling.

10. STIs management in particular should be given extra attention by all those involved in activities targeting discordant couples. The CCAs should sensitize the discordant couples more about the importance of treating STIs in the prevention of HIV infections and also as part of the strategies that can improve their sexual lives.

11. Community stigma and discrimination towards the discordant couples should be addressed. An information pack on community specific Information, Education and Communication (IEC) should be developed with support from networks for people living with HIV and Uganda AIDS Commission

12. The service providers should plan more home-based care activities targeting discordant couples and their family members. This will help address the issue of accessibility and also help to build the capacities of the family members to support the discordant couples.

13. An issue that was quite recurring is the provision of female condoms. The researcher hereby proposes that discordant couples be sensitized about female condoms and thereafter provide them to the interested couples; this is an area for both MoH and other service providers targeting discordant couples.

14. Finally, the researcher identified a big research gap in the area of discordant couples; research is needed in the areas of how marital stability interacts with prevention interventions for example in the areas of adherence, like HAART adherence, STI treatment, and condom use among others.

4.4. Concluding statement

Overall, HIV biomedical prevention strategies are known to the discordant couples and the level of prevention practices is relatively good, as a result; HIV biomedical prevention strategies have had a positive impact on both quality of partner relationships and sexual life of discordant couples hence contributing to their marital stability. Though it was hypothesized that with correct knowledge, all the couples would practice the applicable HIV biomedical prevention strategies, this is not the case; strategies like HAART depend largely on accessibility, availability and affordability though knowledge is the entry point. Some people will not practice the prevention strategy because of personal dislike, like the use of condoms and safe male circumcision that involves personal conviction, while the poor health seeking behaviours have highly compromised the success of STI management as a strategy. Beyond HIV prevention strategies, the discordant couples are influenced by other factors that manipulate their decisions to continue with their marriage and these include: number of children, religion, length of marriages, family ties, love and support offered by the counsellors.

All in all, discordant couples are a unique group that needs more attention. It is therefore important to have programmes specifically designed to address not only HIV infections, but also that promote marital stability. From the findings, it is clear that many of these couples are willing to continue living together. The government of Uganda therefore has a responsibility of setting up policies to protect the rights of the discordant couples as a group, to protect the HIV negative

person from HIV infection and to protect the marriages from breaking. The service providers should all be aligned to the government policies and strategies and Uganda AIDS Commission (UAC), as the coordinating body in the country should work on the funding, implementation, monitoring and evaluation modalities.

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Influence of HIV biomedical prevention strategies on marital stability among discordant couples in Eastern and Western Uganda. Case of Consistence correct condom use and Highly Active Retroviral Therapy

Consent form

Hello, my name is Mwajumah Bint Med. I am from Ristumeikan Asia Pacific University, Department of Public Health, College of International Cooperation Policy. I am conducting a study on the Influence of practicing HIV biomedical prevention strategies on marital stability among sexually active discordant couples. You have been selected randomly to participate in this study. The purpose of this study is basically to share your experiences and views on how the HIV biomedical prevention strategies have impacted on your marriages in general and sexual life in particular as a partner living in a discordant couple. You do not have to answer any question you do not want to. You can stop the interview at any time. Your participation in the study is voluntary and you will not be affected in any way if you decide not to participate. If you agree to participate, the interview will take approximately 30 minutes. Do you agree to participate in the study? Because the issues are confidential, I suggest that you do not give me your name and no one will be in position to identify you with the information given.

_____

Signature of an interviewer verifying that informed consent has been verbally given by the participant

Day/month/year
Date: ____/ ___/ ___

To all respondents: All your answers will be kept strictly confidential. They will be put together with over 60 other people we are talking to, to get an overall picture. It will be impossible to pick you out from what you say, so please feel free to speak to me honestly. *[Proceed with interview only if answer is positive].*

PART 1. SOCIAL DEMOGRAPHIC AND OTHER PARTNER CHARACTERISTICS

Thanks again for accepting to take this interview, I would like to ask you a few questions about yourself, please feel free to share with me.				
#	**Question**	**Responses**	**Codes**	**Skip to**
1.01	Locality of residence	Urban Rural	1 2	
1.02	Circle observable sex of the respondent	Male Female	1 2	
1.03	How old are you in complete years?	Record age in completed years	|__|__|	
1.04	At what age did you get married?	Record age in complete years	|__|__|	
1.05	How long have you lived in this marriage?	Record marriage duration in completed years	|__|__|	
1.06	How many children do you have with this partner?	Number	|__|__|	
1.07	What is your highest level of education?	No education Primary education Secondary education Post secondary education Vocational education	1 2 3 4 5	
1.08	What is your current occupation?	Salaried employee Business/petty trade	1 2	

		Peasant/farmer Casual worker Unemployed	3 4 5	
1.09	What is your religious denomination?	Protestant/COU Roman Catholic Moslem Pentecostal Traditional Other (specify)……..	1 2 3 4 5 6	
1.10	Who is the primary provider of your household income?	Spouse Self Both Parents Others (specify)…….	1 2 3 4 5	
1.11	Who mainly determines your health decisions?	Spouse Self Both Parents Others (specify)……..	1 2 3 4 5	
1.12	What is your HIV status?	HIV sero-positive HIV sero-negative	1 2	
1.13	When did you discover your HIV status?	Circle the most appropriate (years)	1 2 3 +	
1.14	How long did it take you to disclose to your spouse?	Record in months	1-3 4-6 7-9	
1.15	When did you discover the HIV discordance status in this relationship?	Circle the most appropriate (years)	1 2 3 +	
1.16	Did you ever seperate before the discovery of HIV Discordance in this couple?	Yes No		
1.17	How often did you separate?	Once in a while In	__|__|	
1.18	Have you ever seperated due to HIV discordance?	Yes No		
1.19	How often did you separate after the discovery of HIV discordance?	If yes, record number of times	__|__|	
	HAART			
1.20	If HIV positive, are you on ARVs?	Yes No	1 2	
1.21	How long have you been on ARVs?	Circle the most appropriate (years)	1 2 3 +	
	Circmcision			
1.23	If man, are you circumcised?	Yes No	1 2	
1.24	If yes, when were you circumcised?	Childhood Adulthood	1 2 3 +	
1.25	Why were you circumcised?	Cultural obligation	1	

		(tradition/religion) HIV/other STIs prevention Personal Interest	2 3	
	STI management			
1.26	Do you go for routine STI screening?	Yes No	1 2	
1.27	Do you treat your STIs as prescribed (time and complete dose)	Yes No	1 2	
	Consistent correct condom use			
1.28	Do you use condoms?	Yes No	1 2	
1.29	If yes, how often do you use condoms?	All the time Most times Sometimes	1 2 3	
1.30	If no what are the reasons you do not use condoms?	HAART is enough prevention I don't like condoms My partner does not like condoms Discordance is by luck, God is in control	1 2 3 4	
	Other factors			
1.31	Are you an active member of a psychosocial support group?	Yes No	1 2	
1.32	Do you receive regular counselling?	Yes No	1 2	
1.33	Are you faced with any kind of stigma and discrimination?	Yes No	1 2	
1.34	Are you satisfied with the support offered by your partner towards building your marriage?	Yes No	1 2	
1.35	If your culture allowed divorce, would you have separated with your partner?	Yes No	1 2	
1.36	Do you share religious ideology with your partner?	Yes No	1 2	
1.37	Do you have peers within your community with whom you share HIV discordance related issues?	Yes No	1 2	
1.38	Has the support from your families (both yours and partners' family) contributed to your staying together?	Yes No	1 2	

PART 2. MEASURING MARITAL STABILITY

"In the next couple of questions I am interested in hearing your opinion on what role biomedical HIV prevention has played in the stability of your marriage I am going to read a number of statements; please tell me whether you "agree" or "disagree" with the statement that the following have improved since the start of use of the biomedical HIV prevention interventions has helped improve;		*Strongly Agree*	*Agree*	*Disagree*	*Strongly Disagree*
Part A-HIV discordance					
2.01	The amount of time we spend together	1	2	3	4
2.02	The degree to which my spouse and I share common interests	1	2	3	4
2.03	The day to day support and encouragement provided by my spouse	1	2	3	4
2.04	The degree to which my spouse motivates me	1	2	3	4

2.05	My spouses overall personality	1	2	3	4
2.06	My spouse's physical health	1	2	3	4
2.07	The amount of consideration shown by my spouse	1	2	3	4
2.08	The manner in which affection is expressed between me and my spouse	1	2	3	4
2.09	How my spouse reacts when I share feelings	1	2	3	4
2.10	The way disagreements are settled	1	2	3	4
2.11	The number of disagreement between me and my spouse	1	2	3	4
2.12	My spouses philosophy of life	1	2	3	4
2.13	My spouses values	1	2	3	4
2.14	My emotional health	1	2	3	4
2.15	The frequency of sexual and other physically intimate relations with my spouse	1	2	3	4
2.16	The frequency with which my spouse and I have pleasant conversations	1	2	3	4
2.17	My overall compatibility with my spouse	1	2	3	4
2.18	How discussions are made in my marriage	1	2	3	4
2.19	How well my spouse listens to me	1	2	3	4
2.20	Level of attention from spouse	1	2	3	4
2.21	Fertility intentions	1	2	3	4
2.22	Number of separation	1	2	3	4
2.23	Stigma from my spouse	1	2	3	4

PART 3. SEXUAL LIFE

Thanks so much for your responses once again, I now want to know about your sexual life. A few may sound personal but I request that you share your experience with me freely.

#	Question	Responses	Codes	Skip to
3.1	How is the sex life between the two of you? (**Use response codes to probe**)	Poor Fair Good Very good	1 2 3 4	
3.2	How frequently do you and your partner have sexual intercourse or sexual activity? (**Use response codes to probe**)	Regularly Fairly regular Once in a while	1 2 3	
3.3	How frequently would you like to have sex? (**Use response codes to probe**)	Daily Weekly Monthly	1 2 3	
3.4	Between the two of you, who usually initiates sex?	Respondent Spouse	1 2	
3.5	Who would you like to initiate sex?	Respondent Spouse	1 2	
3.6	How frequently do you feel sexual desire? **(Explain to respondent that this may include wanting to have sex, planning to have sex, feeling frustrated due to the lack of sex, and so on)**.	Regularly Fairly regular Once in a while	1 2 3	
3.7	Overall, how satisfactory to you is your sexual relationship with your partner? (**Use response codes to probe**)	Poor Fair Good Very good	1 2 3 4	

3.8	When your partner makes sexual advances, how do you usually respond?	Good/interes ted Bad/not interested Indifferent	1 2 3	
3.9	When you have sex with your partner, what percentage of the time do you feel sexually aroused, turned on or excited?	All the time Some of the time Only for a short time Not at all	1 2 3 4	
3.10	When you have sex with your partner, do you have negative emotional reactions, such as fear, disgust, shame or guilt?	Yes No	1 2	
3.11	In your opinion, what should be done to improve marital stability of discordant couples?			
3.12	In your opinion, what should be done to improve sexual life of discordant couples?			
3.13	What else would you like us to talk about particularly regarding marital stability and your sex life in your current relationship?			

THANK YOU VERY MUCH FOR ANSWERING OUR QUESTIONS

Interview Guide for key informants

i) Which strategies are you currently promoting to reduce the risk of HIV infection among the discordant couples?
ii) Which is the most trusted among the discordant couples and why?
iii) Do you think the use of the preventive strategies has impacted on both marital stability and sex life of the discordant couples? If yes, how?