

**FACTORS ASSOCIATED WITH THE UPTAKE OF CONTRACEPTIVES  
AMONG FEMALE SEX WORKERS IN KAMPALA –UGANDA**

**Case Study: Makindye and Rubaga Division**



**JUNE, 2018**

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**A Postgraduate dissertation presented to Faculty of health sciences in partial fulfilment  
of the requirements for the award of the Master of Public Health – Population and  
Reproductive Health.**

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## **DEDICATION**

I dedicate this piece of work to my beloved husband Simon peter Matovu, my children Terry and Tyler and to my lovely parents, sisters and brothers whose contributions to my life are inestimable.

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During the course of this research, I have received significant help from a number of people whose input was helpful in accomplishing this work.

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## **KEY DEFINITIONS**

In this study, the following definitions will be used;

### **Female sex worker**

Female sex worker is a woman who will have exchanged sex for money or other commodities within the past 3 months.

### **Hotspot:**

A public or semi-public place where people gather in significant numbers for high-risk behaviour (e.g. places where sex workers solicit clients)

### **Contraceptive Prevalence**

Contraceptive prevalence is the percentage of women who are currently using, or whose sexual partner is currently using, at least one method of contraception, regardless of the method used.

### **Uptake**

Use of contraceptives

### **Reproductive age**

This is those years of life between menarche and menopause, roughly from ages 12 to 49 but according to this study the reproductive age will be the age of the Female sex workers to be considered will be between 18 to 49 years of age.

### **Unmet need**

The number or percentage of married women who say they prefer to avoid a pregnancy but are not using any method of contraception.

### **Barrier Contraceptive methods**

The barrier methods in this study will be Diaphragm, male condom and female condom

### **Non-barrier Contraceptive methods**

The non-barrier contraceptives include Depo-Provera, Oral pills, Sterilization, IUD and Hormonal implant

### **Other Contraceptive methods**

The other contraceptives methods include Withdrawal

### **Key Populations**

These include the Female sex workers, Men having sex with Men and transgender

## LIST OF ABBREVIATIONS

DMPA	Depot medroxyprogesterone acetate
FDGs	Focus Group Discussions
FSWs	Female Sex Workers
HBM	Health Belief Model
HIV	Human Immunodeficiency Virus
IAs	Induced Abortions
IUD	Intrauterine Device
KP	Key populations
OCs	Oral Contraceptives
ROC	Receiver Operating Characteristic
SDA	Seventh Day Adventist
SRH	Sexual Reproductive Health
STIs	Sexually Transmitted Infections
U.S	United States
UBOS	Uganda Bureau of Statistics
UDHS	Uganda Demographic Health Survey
WHO	World Health Organization

## ABSTRACT

**Background:** Women of reproductive age and sexually active should use modern contraceptives which is essential to securing the well-being and autonomy of women, while supporting the health and development of communities since it is freely given but female sex workers are at risk of unintended pregnancies which leads to high levels of unplanned births, unsafe abortion, and maternal injury and death.

**Objective:** To assess factors associated with the uptake of contraceptives among female sex workers in Kampala.

**Methodology:** An analytical cross-sectional study design was undertaken among 360 female sex workers aged between 18 to 49 years old recruited through peer-led services in 2 divisions of Kampala. A two-stage cluster stratified sampling and purposive sampling were employed with parishes as clusters and the type of hotspots as strata. Logistic regression was used to assess the factors associated with contraceptive uptake among FSWs. The data was analysed by STATA version 12 statistical software. Binary logistic regression and multi variable logistic regression analysis was used to characterize the association between the variables.

**Results:** Uptake of any contraceptive method was at 98% with 45% using non-barrier contraceptive methods and 53% using barrier contraceptive methods. With all variables accounted for, statistically significant predictors of uptake of non-barrier contraceptive method included: having primary level education (AOR=0.5[95% C.I:0.22-0.95]) and consuming drinks containing Alcohol (AOR=2.75[95% C.I:1.42-5.32]). The predictors of uptake of barrier contraceptive method included: having primary level education (AOR=2.2[95% C.I:1.05-4.63]), belonging to SDA as a religion (AOR=0.11[95% C.I:0.02-0.57]) and consuming drinks containing Alcohol (AOR = 0.37 [95% CI: 0.19 – 0.71]).

**Conclusion:** The uptake of non-barrier and barrier contraceptive methods is still low. History of unintended pregnancy and high rates of abortions might promote contraceptive use, education level and consumption of drinks containing alcohol are some of the major factors that affect the uptake of contraceptives among FSWs in Kampala Uganda. The study recommends that sensitization of FSWs on the various methods of contraceptives which could improve on the uptake of contraceptives among FSWs.

## **CHAPTER ONE: INTRODUCTION BACKGROUND TO THE STUDY**

### **1.0 Introduction**

Globally, the use of modern contraception has increased a little, from 54% in 1990 to 57.4% in 2015. Locally, the proportion of women aged 15–49 reporting use of a modern contraceptive method has increased slightly between 2008 and 2015 from 56.1% to 57.4% (WHO, 2015). The level of uptake of contraceptives has increased in many parts of the world, specifically in Asia and Latin America, but remains low in sub-Saharan Africa. For instance in Africa it slightly increased from 23.6% to 28.5%, in Asia it has increased somewhat from 60.9% to 61.8%, and in Latin America and the Caribbean it has continued to be at 66.7% (WHO, 2015). In 2015, 64 per cent of married or cohabiting women of reproductive age universally were using some method of contraception. However, contraceptive usage was much lower in the least developed countries (40%) and was predominantly low in Africa (33%). Amongst the other main geographic areas, contraceptive use was much higher, stretching from 59% in Oceania to 75% in Northern America. Within these main areas there are large transformations by region and across countries (United Nations et al., 2015).

Contraceptive methods have been used since olden times, but effective and safe methods only became accessible in the 20th century (Kaunyangi et al., 2013). On the other hand, sex work is illegitimate in many parts of Sub-Saharan African yet Female sex workers have reproductive rights and reproductive health needs just like any other citizen. Access and promotion of birth control methods by FWSs may be hindered by inadequate information on contraceptives (Glasier et al., 2008) and self-efficacy.

In developing countries over fifty-five million unintended pregnancies happen every year to women not using a contraceptive method (Bongaarts and Westoff, 2000). Additionally 25

million are reported due to incorrect or inconsistent use of a contraceptive method and method failure (Bongaarts and Westoff, 2000). Thus, the establishment of post-abortion family planning (FP) services that provide counselling with stress-free access to contraceptive methods are appropriate to determine the embracing and selection of contraceptive methods by women who have had induced abortion (Agyei, 2014).

Drug abuse, violence, sex with multiple and concurrent partners, inconsistent condom use, stigma and discrimination, and criminalization are some of the numerous behavioral and structural factors that determine HIV in key populations (Ippoliti et al., 2017). Considering the contribution of the mentioned factors in increasing the risk of poor reproductive health outcomes (WHO, 2016), rather minimal consideration has been put to the reproductive health needs of key populations. FSWs are also human and have rights including sexual and reproductive health (SRH) and that to regulate the number and timing of their pregnancies. Targeted research and public health interventions to key populations have intensified in recent years most particularly for FSWs, many of which their main focus has been on HIV treatment and prevention strategies not forgetting other sexually transmitted infections (STIs), without considering wide-ranging reproductive health needs (Sutherland et al., 2011).

The unmet need of contraception in developing countries is still worrying as a projected 225 million women of childbearing age not using any method of contraception (WHO, 2015). This could result into unplanned births, unsafe abortion, and maternal injury and death (Wulifan, et al., 2016). According to the UDHS (2016), the contraceptive prevalence rate of Uganda is at 26%. Eighteen percent of married women use modern methods, while 6% use a traditional method and as expected, current contraceptive use is higher among sexually active, unmarried women (54%) than among married women (24%) and, in turn, among all women (20%) (UBOS, 2017).

## **1.1 Background of the study**

It is expected that individuals with many sexual partners are keen on using contraceptives to avoid unwanted pregnancies and control the risk of contracting HIV. According to studies on key populations, health-related interventions for FSWs have concentrated on reducing the risk of infectious diseases but surprisingly small amounts of research and programmatic attention regarding the reproductive health of FSWs, despite the high risk for unintended pregnancy that may similarly result from frequent and often unprotected sex and not using contraceptive methods had been carried out (Decker et al., 2013).

There is a growing body of research that demonstrates a significant risk for unintended pregnancy among FSWs, including low levels of contraceptive use (Todd et al., 2006, Todd et al., 2010), and high abortion prevalence (Bautista et al., 2008, Morineau et al., 2011).

According to a study conducted by Duff, et al., (2011), worldwide the reproductive health and pregnancy arrays of FSWs, particularly the drug addicts have mostly been ignored in research and public health interventions. Appreciating the accessibility and use of contraceptives as well as pregnancy arrays among FSWs who use drugs is vital to develop more all-inclusive, women-centred reproductive health services that encourage maternal and child health and reduce adverse consequences like maternal mortality, unsafe abortions, the direct acquisition of HIV/AIDS, and birth defects among children of FSWs (Duff et al., 2011).

Studies investigating factors associated with SRH outcomes, such as access to contraceptives among sex workers, have often been fixated on behavioral determinants of unintended pregnancies and abortions (Yam et al., 2013) and less frequently highlighted structural determinants like stigma, migration, gender disparities, the criminalization of sex work, access to safe work environments, violence, which can challenge access to SRH services among FSWs (Scorgie et al., 2013, Shannon et al., 2009).

However, criminalization and controlling of sex work in Africa can be critical factors of access to health services, because FSWs often fear police and are unable to report physical or sexual violence from clients (Shannon et al., 2007) and use of non-barrier contraceptives (i.e. birth control pills, injectables, implants, male or female sterilization, and intrauterine devices) among FSWs has been linked to inconsistent condom use with clients (Decker et al., 2013) pointing to the potential role of structural barriers to condom negotiations hence affecting the level of contraceptive uptake (Erickson et al., 2015).

Not only is sex work illegal but also seemingly immoral and socially unacceptable in Uganda. It is therefore practiced secretly with high risk of STDs including HIV/AIDS and unwanted pregnancies and abortions. A study conducted in Gulu-Uganda indicated that HIV and acute self-reported STI prevalence were high, with 89 (22.3%) FSWs reporting HIV infection and 161 (40.3%) reporting STIs. Some of the barricades to barrier contraceptive method uptake especially condoms included high risks of client condom refusal in the past 6 months (327 [81.8%] FSWs); and most participants reported that they would be involved in violence from clients (298 [74.5%]) or their intimate partners (241 [60.3%]) if they were asked to wear a condom not overlooking that the police presence also exaggerated the barrier to 115 (28.8%) (Erickson et al., 2015).

Considering another study, using the community methods, challenging structural obstacles to enactment and scale-up service delivery at various levels were identified which included degenerating international discourses and funding constraints; national laws criminalising sex work; and intersecting social stigmas, discrimination, and violence (Kerrigan et al., 2015). The evidence base for community empowerment in FSWs needs to be supported and expanded, including its role in aiding access to, and increasing the level of uptake of combination interventions for HIV prevention and contraceptives. Furthermore, social and political change are needed regarding the acknowledgement of sex work as work, both globally and locally, to

encourage increased support for community empowerment responses to HIV and SRH services (Kerrigan et al., 2015).

According to Ferguson, et al., (2017), various research and programmes in the past periods have mostly concentrated on behavioral and biomedical interventions among FSWs. A recent international review acknowledged a serious need for further studies scrutinizing structural HIV/STI risks or access to care for FSWs in the highest-HIV burden countries (Shannon et al., 2009). This is necessary to inform the design, adaptation and implementation of effective HIV/STI prevention programmes, mostly needed within Sub-Saharan Africa.

Considering the fact that sex workers are often highly sidelined even in non-conflict settings, in conflict-affected environments they may face noticeable social and structural risks and barriers to care, including abuses of human rights by military and police, gender-based inequities, gender based violence, discrimination and stigma, social and physical segregation and other structural menaces that often attend to or follow a catastrophe (Scorgie et al., 2013, Decker et al., 2013, Ferguson et al., 2017).

In one of the studies conducted among FSWs, there was good awareness of diverse family planning methods available (especially Depo-Provera, the pill, and the copper inter-urine device (IUD)), and many had experience using at least one method of contraceptive, aside from condoms. Despite this awareness, most of the female participants had more than one child (and up to as many as 8), frequently with different fathers, and several had given birth to their first child at an early age (Burry, 2017).

According to the Crane survey project by Makerere School of Public Health, Kampala is known to have very many hotspots for sex workers with about 81 of these being more popular. Among these are the streets, corridors, bars, clubs and lodges (The Crane Survey Report, 2010).



There is an increase of sex workers in Uganda which also brings about the different risks that are associated with Female sex workers (FSWs) who are at risk of unintended pregnancies and induced abortions (IAs). Additionally, statistics show low contraceptive use at (14% oral pills, 31% Depo-Provera and 55 % None or other methods) among FSWs when they were enrolled at the Good Health for Women Project clinic (Vandepitte et al., 2011), therefore the study determined the factors associated with uptake of contraceptives among FSWs.

### **1.2 Problem statement:**

Every woman of reproductive age and sexually active should use modern contraceptives which is essential to securing the well-being and autonomy of women, while supporting the health and development of communities. This is essential especially for FSWs who are at risk of unintended pregnancies which in turn puts them at risk of high levels of unplanned births, unsafe abortion, and maternal injury and death. The UDHS (2011), also confirmed that many women have unplanned births reporting more than four in 10 births were unplanned and this high levels of unintended pregnancy and unplanned births in Uganda can be attributed primarily to non-use of contraceptives by women of child bearing age.

According to the UDHS (2016), the proportion of women who want to have another child soon decreased sharply with the number of living children, from 80% among women with no living children to 24% among women with one living child, and to 7% or less among those with five or more living children. This still points out the unmet need of FP. This can be attributed primarily to non-use of modern contraceptives by women who do not want a child soon.

In many settings, people tend to adopt contraceptives to avoid unwanted pregnancies and the non-utilization is explained by the theoretical framework of the Health Belief Model (HBM) where a person will take a health-related action like use contraceptives if that person feels that a negative health condition like unwanted pregnancy can be avoided. This therefore makes

FSWs susceptible to having intended pregnancies and unplanned births due to unprotected sex, early sex debut, having multiple sexual partners, sexual gender based violence (SGBV), being addicted to sex hence exposing them to HIV too .This study therefore sought to find out the factors associated with uptake of contraceptives among the female sex workers and how they could be best addressed.

### **1.3 Research questions**

- What is the level of uptake of contraceptives among female sex workers in Kampala?
- What are the commonly used contraceptive methods among the female sex workers?
- What factors are associated with choice of contraceptive method female sex workers in Kampala?

### **1.4 Objectives of the Study**

#### **1.4.1 General Objective:**

To assess factors associated with the uptake of contraceptives among female sex workers in Kampala.

#### **1.4.2 Specific Objectives**

- To determine the level of uptake of Contraceptives among female sex workers in Kampala
- To find out the commonly used contraceptive method among female sex workers in Kampala.
- To determine factors associated with choice of Contraceptive method among female sex workers in Kampala.

### **1.5 Scope of the Study**

The study was carried in southern Kampala comprising Female Sex Workers in two divisions (Rubaga and Makindye) in Kampala district. The study focused mainly on hotspots, defined as clusters of bars, night clubs, lodges, and guesthouses known to provide rooms for sex work or selected street spots often frequented by sex workers in search of clients. This gave a better representation of the study population with the help of peer educators from within the FSWs.

### **1.6 Significance of the study**

Contraceptive prevalence is useful for tracking progress towards the target of achieving universal access to reproductive health, especially when the indicator is considered in conjunction with other information about women's knowledge of family planning or accessibility and quality of family planning services.

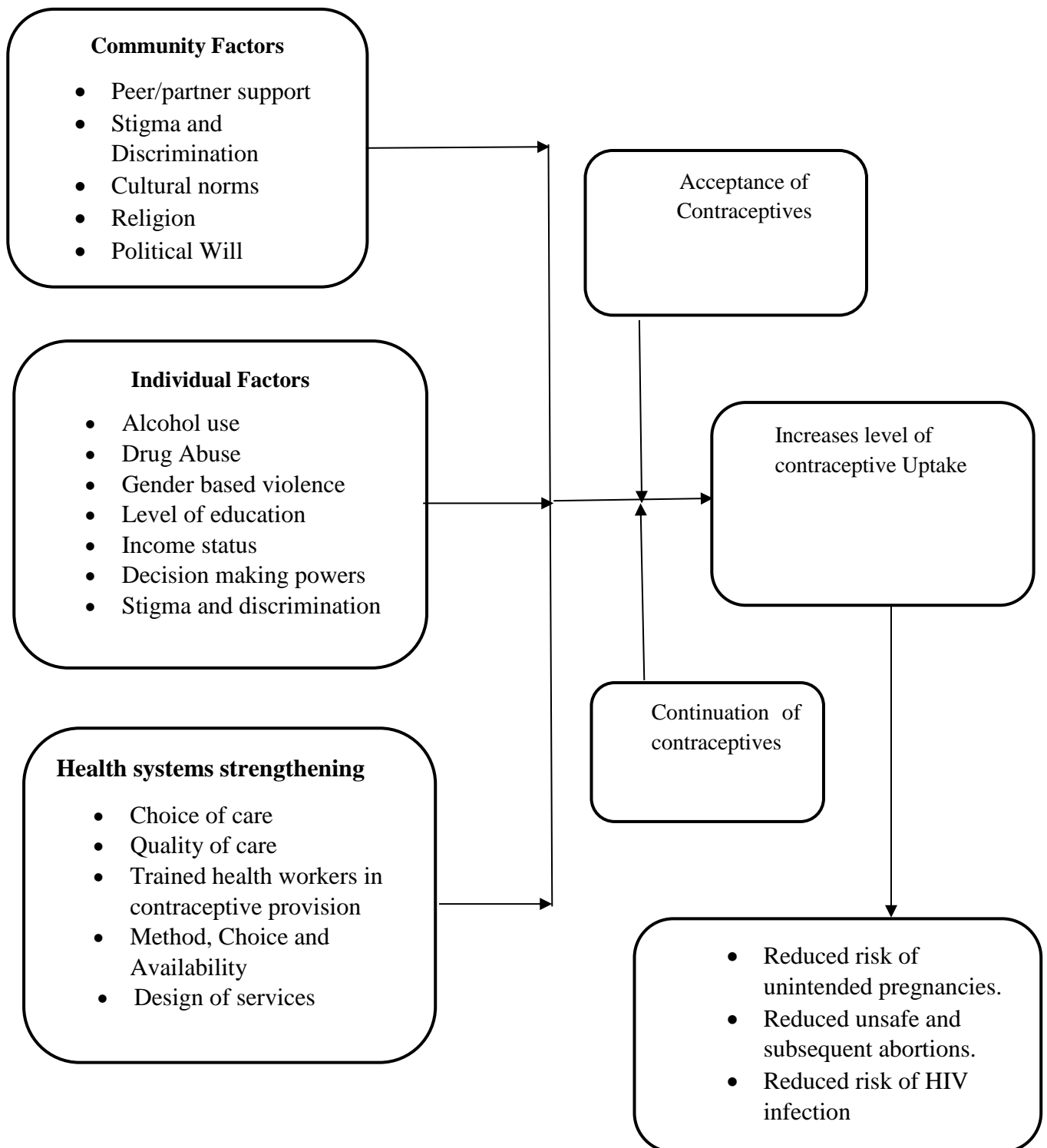
The study identified challenges and opportunities in the current Family Planning service delivery approaches in addressing the contraceptive needs of FSWs and therefore this information is expected to inform family planning programming to improve contraceptive service provision for FSWs in order to reduce unintended pregnancies.

The results of this study could also be used to strengthen future development of health service delivery to FSWs, and guide Ministry of Health and partner organizations, in the national wide scale up of community based family planning.

The study findings may also provide insights on reproductive health rights and needs of FSWs just like any other citizen is entitled to thus the need to identify the factors that may influence the uptake of contraceptives among these sex workers as one of their reproductive needs.

### 1.9 Diagrammatic Conceptual Framework

Figure 1: Conceptual Framework



## CHAPTER TWO: LITERATURE REVIEW

### 2.0 Introduction

This chapter contains a review of existing literature on factors associated with the uptake of contraceptives among female sex workers with a purpose of critically analysing, identifying gaps, identifying variables and thereby focusing the study. The chapter discusses the theoretical framework used in the study, the uptake of contraceptives, commonly used contraceptive methods, factors associated with contraceptive uptake like community factors, individual factors, health system factors and attitudes and beliefs towards contraceptive use.

### 2.1 Theoretical framework

The factors associated with the uptake of contraceptives among FSWs are based on the Health Belief Model (HBM). The HBM is a psychological model that attempts to explain and predict health behaviours. This is done by focusing on the attitudes and beliefs of individuals. The HBM was first developed in the 1950s by social psychologists Hochbaum, Rosenstock and Kegels working in the United States Public Health Services (Janz and Becker, 1984).

The HBM was spelt out in terms of four constructs representing the perceived threat and net benefits: perceived *susceptibility*, perceived *severity*, perceived *benefits*, and perceived *barriers*. These concepts were proposed as accounting for people's "readiness to act."

The HBM is based on the understanding that a person will take a health-related action (i.e., use contraceptives) if that person:

1. feels that a negative health condition (i.e., unwanted pregnancy) can be avoided,
2. has a positive expectation that by taking a recommended action, he/she will avoid a negative health condition (i.e., using contraceptives will be effective at preventing unwanted pregnancies), and

3. believes that he/she can successfully take a recommended health action (i.e., he/she can use contraceptives comfortably and with confidence).

An added concept, *cues to action*, would activate that readiness and stimulate overt behaviour. A recent addition to the HBM is the concept of *self-efficacy*, or one's confidence in the ability to successfully perform an action. This concept was added by Rosenstock in 1988 to help the HBM better fit the challenges of changing habitual unhealthy behaviours, such as being sedentary, smoking, or overeating (Hochbaum et al., 1952).

## **2.2 Contraceptive Uptake**

The contraceptive uptake focuses of the contraceptive prevalence around the world, in Africa and then Uganda. Contraceptive uptake has improved in many parts of the world, especially in Asia and Latin America, but remains lower in sub-Saharan Africa (WHO, 2015).

Considering the UDHS 2016, it was reported that the contraceptive prevalence rate of Uganda is at 26%. It was also reported that 18% of married women were using modern methods, while 6% were using a traditional method and as predictable, current contraceptive use is higher among sexually active reporting unmarried women at 54% and among married women at 24% and, consequently among all women (20%) (UBOS, 2017).

In Cambodia and Laos, it was reported that there was a high unmet contraceptive need among FSWs by the National Institute of Statistics, Directorate General for Health. Delvaux, et al., (2003) also reported high cases of induced abortions among FSWs in comparison with the 5% of all Cambodian women of child bearing age projected to have aborted in 2000. The occurrence of abortion amplified with the number of clients autonomously exposed to unprotected sex with steady partners. The study also reported low induced abortion prevalence (26%) considering FSW data from other developing countries hence suggesting that the

number of sexual episodes in sex work contributes to unintended pregnancies (Delvaux et al., 2003).

However, according to Morineau, et al., (2011) numerous pregnancies were willingly aborted during the sex work which in turn brought about escalated prevalence of lifetime abortion among FSWs who had pregnancies befalling in the past 6 months. The study also proposed that hormonal contraceptive use was often inspired due to previous accidental pregnancies bringing the level of hormonal contraceptives at (3%) in Cambodia (Morineau et al., 2011).

Considering another study on FSWs, slightly few (<20%) participants reported using both condoms with 2/3 of participants having reported use of a non-barrier contraceptive method (Chanda et al., 2017). Modern non-barrier methods are considered the most effective for prevention of pregnancy though they do not reduce the risk of HIV acquisition which brings in dual protection and use of condoms hence reducing the risk of HIV acquisition and thus is complementary to non-barrier methods. Additionally the study reported that the real prevalence of dual protection could have been lower due to the possibility of women who reported using both condoms and non-barrier methods but not using both concurrently, (Chanda et al., 2017).

Most research and interventions with FSWs have focused on the prevention, treatment, and care of HIV and other sexually transmitted infections (STIs)(WHO, 2012). Availability and use of broader SRH services among FSWs including positive sexual health resources, contraceptive access, family planning, and pregnancy and prenatal support have been largely neglected (Kim et al., 2015).

Additionally in Laos and Cambodia, the findings were reliable with past findings reporting fewer FSWs using any modern contraceptive method except condoms (Morineau et al., 2011).

More to that, in Laos it was reported that access to contraceptive services is mostly restricted

for the unmarried youths who are usually stigmatized and healthcare providers find it hard educating them about contraceptives and reluctant to supply them (Cleeve et al., 2014).

According to another study on FSWs in Zambia, it reported barrier contraceptive uptake at 10.8%, non-barrier contraceptive uptake at 48.5%, none contraceptive use at 22.5% and dual protection at 18.3% (Chanda et al., 2017).

While modern contraceptive methods justify for the greater contraceptive use, and a growing part of all use, significant magnitudes of women in some countries still rely on traditional methods. Unmet need has dropped in many countries, but remains considerably large in sub-Saharan Africa (Khan et al., 2007).

According to Martin, et al., (2015) uptake of non-barrier contraceptives was reported at 33.5% FSWs while another study among FSWs reported that 55% used barrier contraceptives and 45% preferred non-barrier contraceptive methods (Vandepitte et al., 2013), both still indicating low uptake especially for the non-barrier methods.

### **2.3 Commonly Used Contraceptive Methods**

According to Khan, et al., (2007), the most frequently used modern methods are the pill, injectable, and the male condom. Current contraceptive use has improved progressively in most countries, but levels still continue to be lower in sub-Saharan Africa, and mainly among rural and less-educated women (Khan et al., 2007).

Considering other studies, almost all participants reported using condoms in the past 30 days, and 44.0% of hotel-based FSWs and 30.0% of street-based FSWs reported dual method use during that period. SRH services had been obtained by 64.0% of hotel-based and 89.0% of street-based FSWs in the past six months; drop-in centers were their preferred model for receiving health services (Kerrigan et al., 2015, Katz et al., 2015).



However, a very big proportion of FSWs in Durban, and to a smaller extent in Mombasa, depend on condoms only for contraception (Lafort et al., 2017) which also manifests in another study that reported approximately one third were using a non-barrier contraceptive method, most commonly oral contraceptive pills and IUDs with almost all respondents reporting use of a barrier method, predominantly male condoms (Martin et al., 2015).

According to Zhang, et al., (2014), 27% of adolescent FSWs had certainly not used any modern contraceptive which also reported that condoms (69%) and oral contraceptives (38%) were most frequently used, and less than 3% had ever relied on an intrauterine device. It was found out that low rates of dual protection (34%) and about half of the participants reported one or more lifetime abortions, this in turn indicated that inconsistent condom use, recurrent alcohol use and longer-term living together were associated with prior abortion (Zhang et al., 2014).

Considering a study carried out in Afghanistan, generally hormonal methods of contraception were the most frequently used methods, with significant site discrepancies in preferred methods. The most commonly used contraceptive methods among women<sup>6</sup> in Jalalabad were oral contraceptives (OCs) and injectable depot medroxyprogesterone acetate (DMPA) were, representing 45.5% and 31.8% of the method mix, respectively. DMPA was the most common method in Mazar-i-Sharif, representing 56.1% of the combined method, with OCs comprising 21.4%. In Kabul, 50.6% of women were using condoms as a contraceptive method making it the most commonly used method. Participants from Kabul were significantly less likely to be using contraception compared with the other two sites; however, there was no significant site difference among women desiring pregnancy (Todd et al., 2010).

In addition, FSWs may tag different sexual partners to disease prevention and pregnancy prevention differently and a trend to prioritize condom use and other contraceptive methods differently across partners has been reported in the general population. There is a persistent

finding in that women with steady partners and using non-barrier contraceptive methods are usually less likely to use condoms than those with more sexual partners (Yam et al., 2013b).

According to a study carried out among adolescent FSWs, the most preferred contraceptive method used was condoms at 91%, then emergency contraceptives at 21%, and lastly withdrawal 20% with merely 23 adolescents (7%) using dual contraceptive method ( Lim et al., 2015). Majority of rely on male condoms but there is a lot of inconsistency use so many a times dual method use was frequently used (Sutherland et al., 2011). A study among HIV positive FSWs also reported male condoms being the preferred contraceptive method indicating 91% at post-implementation and 95.6% at pre-implementation as the overall condom use during the last 6 months (Thyda et al., 2015).

According to another study conducted in four countries which included India, Kenya, Mozambique and South Africa reported current use of any modern contraception at 86.2% in Tete and 98.4% in Mombasa with a P-value=0.001, while non-barrier contraception (hormonal, IUD or sterilisation) ranged from 33.4% in Durban to 85.1% in Mysore at 10% level of significance (Lafort et al., 2017)

According to a study by Erickson, et al., (2015), 45% of the FSWs reported dual protection. Generally, 10.3% of the respondents had never used condoms for pregnancy prevention, and only 49.8% had ever used hormonal contraceptives (i.e. birth control pills, Depo-Provera injectables, or implants) with the most common forms of non-barrier contraceptive methods being used along with condoms being injectables, birth control pills, and implants (Erickson et al., 2015).

According to another study on FSWs, 66.6% were currently using non-barrier contraceptive method with the commonly used being injectables at 57.8%, oral birth control pills at 27.5%, and implants at 12.7%. Majority (61.7%) of participants who had ever been pregnant at least

once had had an unplanned pregnancy, and 47.7% reported voluntarily carrying out an abortion (Chanda et al., 2017).

## **2.4 Factors associated with the choice of contraceptive Method**

### **2.4.1 Community factors**

According to Haider and Sharma, (2013), different communities have different cultures which in turn bring out hitches in the uptake of contraceptive services in sub-Saharan Africa. The study had a shorter review period but one of the recommendation was that bridging the knowledge gap could in turn escalate the level of uptake of contraceptives (Haider and Sharma, 2013). Findings in that study signify that different approaches and models be used due to the different complex cultural and social norms of each group of individuals in sub-Saharan Africa (Haider and Sharma, 2013).

#### **2.4.1.1 Peer/partner support**

According to a study conducted by Nalwadda, et al., (2010), Female adolescents aged 15-24 years reported partner discontentment and fear of physical violence from their family members and partners as barricades to contraceptive use. This in comparison reflected that men felt that having unprotected sex boosted their character among their fellow peers (Nalwadda et al., 2010).

In other studies, issues of power and control were investigated for example Bharat et al., (2013), discovered that majority (60%) of FSWs reported the having negotiating power for condom use though less than one-fifth reported the capability to effectively influence an unwilling client to use a condom or to negotiate condom use (Bharat et al., 2013).

Considering a study on male involvement on contraceptive uptake it was reported that it was an impediment amongst men to provide backing for their partner's in use of contraceptive

methods related to perceived side effects which were blamed for reducing sexual pleasure and increasing women's risks of infertility and illness where men reported being frustrated by several observed side effects, most notably irregular and prolonged bleeding, as well as vaginal dryness, and decreases in sex drive or libido (Kabagenyi et al., 2014) making it hard to give their support.

#### **2.4.1.2 Stigma and Discrimination**

FSWs face major barriers to access of SRH services through different global low, middle, and high-income settings (WHO, 2012, Duff et al., 2011a). These barriers include the outlawing of sex work and HIV status related stigma, work-related stigma, discrimination by healthcare providers, limited knowledge of services available, mistrust of healthcare professionals by clients and health discriminations for example mental health issues and illicit drug use (Porras et al., 2008, Phrasisombath et al., 2012).

According to other studies, Stigma and police raids could often lead to hurried dialogues between FSWs and clients which in turn could lead to an failure to screen clients and also negotiate for safer sex, (Erickson et al., 2015) and in settings where sex work is forbidden, the ability to negotiate for safer sex practices is endangered when FSWs are forced to provide services in inaccessible or insecure work-related surroundings (Scorgie et al., 2013, Bukenya et al., 2013).

Other studies show that women are always regarded as a weaker sex especially marginalized, disabled, FSWs, those living in rural areas and those that have been sexually abused so their involvement in sexual activities could also mean embarrassment and stigma associated with SRH services (Jameson et al., 1999).

In a study conducted on Key populations, it was reported that they are regularly stigmatized by health-care providers during access of health services for example denying them certain

services, or giving them insufficient health care which is a significant blockage to the provision of comprehensive health services like family planning. Such KPs many times feel uncomfortable discussing their SRH needs with health-care workers thinking they will not support their choices or help them make informed judgements about contraceptive choices (Ippoliti et al., 2017).

Another study carried out in four African countries including Uganda indicated that participants mentioned wide-ranging issues like long waiting time, shortage of medicines and lack of transportation to the health centers in relation to accessing public-sector facilities (Scorgie et al., 2013). Majority of sex workers reported to have experienced a number of barriers to receiving decent health as the providers were ‘abusive’ and ‘hostile’ and openly blaming FSWs for their illnesses (Scorgie et al., 2013) .

*‘When I fell sick and went to a health centre and they realised that I was a sex worker, they did not treat me like a human being. When the health worker came to attend to me she said that I should go to the other health worker and when I reached the other health worker, I was told that he had no time for me. So I left without getting treatment.’ (Anna, 19-year-old female, Mombasa)*

*‘We are despised in the hospitals. They [providers] say, “We don’t have time for prostitutes” and they also say that if one prostitute dies then the number reduces.’ (Belinda, 27-year-old female, Kampala)*

#### **2.4.1.3 Cultural norms**

According to Haider and Sharma (2013), it is seen as an offence when parents discuss SRH issues with their children in most sub-Saharan Africa countries which is also evident in FSWs who they have not disclosed to their family members yet. Society usually shuns adolescent and

youth SRH services which makes them feel embarrassed when seeking family planning and contraceptive services and also fear punishment from family members which turns out to be violent (Haider and Sharma, 2013).

Majority of the KPs especially FSWs are faced with hurtful penalties like stigma discrimination and violence due to the different gender norms and other beliefs in society for example women should be married with only one sexual partner (Ippoliti et al., 2017). These groups of people's ability to get professional SRH and other health care services is often affected by stigmatization which in turn aggravates their risk of poor health outcomes (Germain, 2009).

Considering another study, the level of contraceptive uptake among FSWs is greatly affected by gender norms that convene more decision making powers in child bearing and safer sex negotiations (Ippoliti et al., 2017). According to other studies conducted in south India, all women whether FSWs or not reported chances of get pregnant indicating not being infertile hence corresponding to gender norms that relate with women's value regarding giving birth (Deering et al., 2015). Similar findings were reported in a study in Tanzania, which found that FSWs were not excused from the shared gender norms for women to have children under pressure (Beckham et al., 2015).

#### **2.4.1.4 Political Will**

Policy barriers and funding gaps are some of the main hindrances for FSWs in accessing high-quality SRH services and exercising their reproductive health rights, like in India where women under the age of 18 are limited from accessing FP services (Petruney et al., 2012).

Similarly, Chersich, et al., (2013) discovered that continuous banning of sex work in Africa decreased FSWs regulation on the working circumstances. This in turn reduces their chances of accessing health services, and hinders health service delivery and permissible protection (Chersich et al., 2013).

In conclusion, considering a study by Ippoliti, et al., (2017), Gender norms many times strengthen male supremacy and have too much control over women hence leading to sexual or physical violence from their partners and clients hence having no community support that promotes FP and other SRH behavioral change services. These community factors could be controlled through police and health care providers sensitization such that FSWs have an impression of a good working environment and empowered to report cases of gender based violence, use community based models for KPs to report many of the issues, like such as encouraging reproductive health rights, increasing regular condom use and reducing STI/HIV, and talking about violence (Ippoliti et al., 2017).

#### **2.4.2 Individual factors**

At the individual level, Behavioral change communication through peer educators could reduce on the knowledge gap on contraceptive method effectiveness as well as fallacies and fears about different methods. For the HIV-positive KPs, more sensitization could be made on test and treat, ART misconceptions about the use of ART and its possible side effects on health status (Sutherland et al., 2011).

##### **2.4.2.1 Alcohol use**

According to a study conducted by Lau, et al., (2007) in china, it was reported that when one has had drinks containing alcohol, one might not be able to use contraceptive methods or negotiate for safer sex with 55.6% reporting prompted abortions, of which 52.0% of the abortions happened in registered clinics. FSWs who were younger, had damaged themselves, and drank at least 5 beers per day with OR=0.36–3.02 were more likely than others not taking alcohol drinks to have the persuaded abortion done via improper means (Lau et al., 2007)

In Nuken, et al., (2013) study, 30.2% HIV-positive FSWs were more likely than the 18% HIV-negative FSWs to consume alcohol on a daily basis. It was also reported in this same study that

“HIV-positive daily alcohol users reported lower condom use at last sex with regular sex partners compared to HIV-positive non-daily alcohol users (46.2% vs. 79.3%)” (Nuken et al., 2013). Another study conducted by Mooney, et al., (2013) reported a high prevalence of occupational violence at 59% and alcohol abuse at 51%. Occupational violence was more associated with unprotected sex with regular especially with customers who didn’t want to pay between those who abused alcohol than those who did not (Mooney et al. 2013). These findings bring out the key role of alcohol and violence in prompting correct and consistent condom use and HIV exposure.

Considering another study, consistent use of alcohol is associated to the level of uptake of SRH services including the level of contraceptive uptake (AOR = 3.19; 95%CI: 1.44–7.06),(Lim et al., 2015).According to another study, severe alcohol drinking by students in colleges significantly forecast their superficial possibility that they would engage in sexual intercourse with no condom (Abbey et al., 2005). About 20% of South African men were having unprotected sex even when condoms were freely provided which still indicated that alcohol drinking and use of another method of contraception were associated with unsafe sex hence neglecting the use of barrier methods (Sarkar, 2008).

According to a study on FSWs in china by Zhang, et al., (2013), about 50.3% of the study participants had sex while drunk once in the past week, of which 56.4% did not use condom protection and STI prevalence was at 30.4% among this group which makes alcohol have a negative effect on the level of uptake of contraceptives methods and the negating power for safer sex.

#### **2.4.2.2 Drug Abuse**

According to a study conducted by Cornford, et al., (2015), 25%of the women using drugs where less like to use non-barrier contraceptive methods than the 50% not on drugs at  $p < 0.001$ ,



still those women on drugs had more abortions than those not on drugs at 0.46 than those not on drugs at 0.025 and  $p = 0.004$  with advanced yearly occurrences of chlamydia at 1.1% compared to 0.33% for those not on drugs and  $p < 0.001$ . Studies also reported low contraceptive uptake with oral contraceptive at 4% in drug users and 25% in non-drug users, IUCD at 1% in drug users and 6% in non-drug users, and sterilisation at 7% in drug users and 6% in non-drug users and higher level in injectables at 6% in drug users than the 3% in non-drug users (Cornford et al., 2015).

The oral contraceptive is at times not so favourable for majority of women on illicit drugs and those that are homeless as they often require very good adherence with six monthly and three monthly refills (Duff et al., 2011b).

Correct and consistent condom use should be emphasized especially for the younger FSWs and those using injectable drugs and also empower them on negotiating for safe sex to reduce on the condom failure rates (Lim et al., 2015) and none use of other contraceptive methods to avoid unintended pregnancies. Similarly, in a study conducted by Weldegebreal, et al., (2015), reported drug users were 2.7 times more likely to have unintended pregnancy than those who did not use drugs hence demonstrating the none use of contraceptive methods to avoid the pregnancies.

#### **2.4.2.3 Gender based violence**

According to Mooney et al. (2013) there was high prevalence of occupational violence at 59% and alcohol abuse at 51%. Occupational violence in alcohol abusers was more associated with unprotected sex with regular among non-paying clients than those who did not (Mooney et al., 2013). These findings pointed to the crucial role of alcohol and occupational violence in influencing condom use and HIV exposure.

According to Scorgie, et al., (2013) the thoughtful susceptibility to HIV infection encountered by FSWs throughout Africa arose as a strong subject in the study carried out. Considerably most of this is connected to the violence that goes along with sex work making them unable to protect themselves due to the double perspectives of patriarchy and criminalisation (Scorgie et al., 2013).

*'One time I went with a client – I don't know whether he was a policeman or not because he had a pistol. He forced me and removed the condom and had unprotected sex with me. After some time, when I went for HIV testing I was positive, yet earlier I had tested negative before having unprotected sex with him.'* (Jackie, 26-year-old female, Kampala)

#### **2.4.2.4 Level of education**

According to Khan, et al., (2007), the current level of contraceptive uptake has risen gradually in majority of the countries, though levels still remain lower in sub-Saharan Africa particularly among rural and illiterate or less educated women.

According to (UBOS, 2012b) ,Use of modern contraceptive methods varies significantly due to the social and economic status of women. In 2011, Uganda's less educated married women level of contraceptive uptake was at 13–15% compared with 37–39% of the most educated and wealthiest. 39% of the urban married women used modern contraceptives compared to the ones in the rural setting at 23%. Also the UDHS, 2016, it reported that illiterate (26%) women are less likely to use a contraceptive method than those women having any of education (38-51%).

According to a study by Sarkar (2008) amongst the Latinos living in Houston, there was a great influence on condom use at the last sexual encounter with the main sexual partner due to the education level and gender responsibilities.

#### **2.4.2.5 Income status**

Financial constraints play a major role in dragging women into sex work and due to society stigmatization and criminalization there is absence of social support in all phases of life including health care services like SRH. This is revealed in many of the participants having IAs (Rekart, 2006).

#### **2.4.2.6 Decision making powers**

Joint reproductive health decision-making among couples which does not neglect the added value of men's participation is urgently needed. The findings from this study can be used to develop effective male-involvement family planning initiatives which address barriers to men's supportive participation in reproductive health, including addressing men's negative health beliefs regarding contraceptive services (Kabagenyi et al., 2014)

Due to male-controlled families, many women are not empowered to seek out FP services so they would rather their husbands take on that responsibility and some feel they do not have the sexual sovereignty to make reproductive choices (Haider and Sharma, 2013).

#### **2.4.2.7 Stigma and discrimination**

According to the 2011 UDHS, it was reported that stigma is also hindrance amongst the adolescents who are sexually active yet not married for not using a contraceptive method.

According to a study conducted by Scorgie, et al., (2013), there were reported cases of unfair treatment to families of FSWs who escorted them to health facilities. One participant narrated being hard-pressed to the end of the queue when she brought her child for treatment and was attended to last (Scorgie et al., 2013).

The dominance of HIV concerns among FSWs in the current situations (Konakova et al., 2005) would debate against the fact that sex workers would sacrifice condom use with clients when using non-barrier contraceptive methods for more pay (Decker et al., 2013).

In another study conducted by Burry, k., (2017)., Stigma also greatly reduces the level of uptake of contraceptives in women and the terror which comes with gossip appeared to also have played a role, as Felicity (FSW, 28 years) described:

*“Lots of people from here talk; many people will talk about this kind of thing [use of family planning] inside their communities. They like talking about women like, ‘Why is she taking family planning? She’s not married, so why is she taking family planning?’”*

According to Scorgie, et al., (2013), it was reported families of FSWs also experienced discriminatory treatment at times to when they escorted them to health facilities. One participant reported being hard-pressed to the end of the queue when bringing her child for treatment and was attended to last.

#### **2.4.2.8 Knowledge on contraceptive methods**

According to a study conducted by Khan, et al., (2007), reports showed that knowledge of contraception remains significantly lower especially in sub-Saharan Africa despite accumulated knowledge of various methods of contraceptives.

According to a study by Delvaux, et al., (2003), contraceptive use among FSWs is minimal other than condoms which are common among that group as well as knowledge of SRH hence increasing the possibility of unintended pregnancy (Delvaux et al., 2003).

#### **2.4.2.9 Religion**

Religious ideology influences condom use and the extent of religiosity was found to be connected with sexuality. Sexual behavior is greatly predicted by religious conduct (Sarkar, 2008).

Different communities shun the use of condoms due to their moral upbringing and religious conducts in addition to the societal stigmas and personal hesitancy (Sarkar, 2008).

#### **2.4.2.10 Number of Children**

According to a study conducted in 2008 by Sarkar in Mexico, 40% of FSWs who were single mothers in Tijuana, Mexico aimed for better pay from their clients to increase their income so as to support their children regards of the risks associated with the sex work job like STIs, unwanted pregnancies and physical violence. Most customers never wanted to use condoms and in return they would offer extra money for unprotected sex which in turn made FSWs negotiating power for safer sex with most of them also complaining about discomfort of a condom during sexual intercourse (Sarkar, 2008).

Another study reported that FSWs with one or more children were more likely to use non-barrier contraceptive method than those with no children which implied that those 65% of the FSWs with children were more likely report use of non-barrier contraceptive methods alone than 14% of the FSWs without children (Yam et al., 2013a).

According to the UDHS, 2016 report, it was reported that contraceptive uptake increase with number of living children and wealth and as a result the level of contraceptive uptake among married women largely increased to 47% with age, climaxing at 40-45 years of age before decreasing to 29% among women aged between 45-49 years.

In conclusion, Ippoliti, et al., (2017), reported that the individual factors like the knowledge gap on contraceptive methods, their effectiveness, dominant fallacies and worries about certain contraceptive methods and perceived side effects, and poor negotiation skills for safer sex, lack of communication skills about pregnancy and ways of avoiding diseases like HIV, lack of decision making powers for SRH services. These could be curbed done through increasing sensitization on contraceptives, correcting misinformation about the different methods, and addressing worries about the different side effects, promotion of dual method, empowering the FSWs on negotiation expertise for safer sex and self-esteem and assertiveness training specifically for the adolescent KPs and the injection drug users on integrate FP education (Ippoliti et al., 2017).

### **2.4.3 Health System Factors**

#### **2.4.3.1 Choice of care**

The choice of care basically look at whether Public health facility or private for profit (drug shops and clinics), and outreach affect the level of contraceptive uptake.

According to a study conducted by Scorgie, et al., (2013), Private facilities were extensively considered as ‘friendly’ places where FSWs were treated with self-respect and their privacy was respected. One FSWs was mistreated by a doctor in a public hospital in Mombasa, when Aisha had a suspected STI, she sought treatment in an alternative at a private health facility:

*‘I was well counselled and they treated my infections very well until I was healed. I like that doctor, even he advised me to do a HIV test but I declined by telling him I am not ready. And he replied to me, “It’s OK, when you are ready come for the test.” I was very happy for myself with the way that doctor treated me.’*

According to a study conducted by Scorgie, et al., (2013), private doctors were reported to provide professional health care to FSWs without discrimination and judging them about what they do:

*'... last time I go to the clinic bleeding too much, they didn't treat me and told me, "You are a sex worker, you want sex too much, we can't treat you." So I go to the private clinic; they treat me nice.'* (Zinhle, 26-year-old female, Musina)

Looking at a study conducted by Nalwadda, et al., (2010), Some FSWs prompted to purchase their own contraceptives from private clinics since they are assured of privacy than health facilities surrounded with a lot of stigmatization, discrimination and panic. Furthermore, young FSWs preferred purchasing medical items like contraceptives and STI treatment drugs from drug stores and pharmacies with at times unqualified staff not to be asked very many questions and at times would lead to complications (Nalwadda et al., 2010).

#### **2.4.3.2 Quality of care**

According to Scorgie, et al., (2013), FSWs experienced numerous extra barriers to getting decent and professional medical care. The service providers were defined as 'abusive' and 'hostile', at times openly refusing to treat them, referring FSWs unnecessarily to other health facilities, or openly blaming them for their infections and diseases (Scorgie et al., 2013).

*'When I fell sick and went to a health centre and they realised that I was a sex worker, they did not treat me like a human being. When the health worker came to attend to me she said that I should go to the other health worker and when I reached the other health worker, I was told that he had no time for me. So I left without getting treatment.'* (Anna, 19-year-old female, Mombasa)

*‘We are despised in the hospitals. They [providers] say, “We don't have time for prostitutes” and they also say that if one prostitute dies then the number reduces.’ (Belinda, 27-year-old female, Kampala)*

The major barriers within health care settings suggests the need for approaches that would enable KPs to access and use appropriate health services (Ippoliti et al., 2017). Adolescent KPs may need adolescent friendly or youth friendly services customized, groundbreaking efforts, like drop-in centers, target oriented outreaches and peer support to help in service delivery (Elmore-Meegan et al., 2004, Onyango et al., 2015). Trainings provided to health care providers in counseling and communication techniques could address the uptake of the different contraceptive methods, including dual contraception (Lim et al., 2015).

#### **2.4.3.3 Trained health workers in contraceptive provision**

Studies have identified seven types of medical barriers to FP which include reasons not to administer a certain drug, eligibility hindrances, adverse effects that may occur, service provider qualifications, bias by health care providers, unprofessional health management of side effects. In regards to the developing world such limitations and necessities are weaknesses to contraceptive rights and have been well documented in the writing (Greene and Stanback, 2012).

The level of uptake of contraceptives depends on the opinions and experiences of the users and the socioeconomic perspective (Moore et al., 2015). Acceptability has a greater impact than the actual advantages of a given contraceptive method due to different cultures and gender norms (Moore et al., 2015).



#### **2.4.3.4 Method, Choice and Availability**

According to a study by Nalwadda, et al., (2010), most clinics were consistently experiencing stock outs of contraceptives and had few methods to choose from which made it very hard to using a method regularly.

According to a study by Todd, et al., (2010), age was also considered a determinant for one's method of choice where it showed that older FSWs were more likely to use OCs at  $p=0.001$ , injectables at  $p=0.004$  or had done surgical sterilization at  $p=0.23$  than the youthful FSWs who were more likely to use the IUD at  $p=0.044$ . It was also reported that among 64 FSWs that preferred using condoms as the contraceptive method, 53.1% reported consistent condom use in the previous 6 months with regular clients and 62.5% of the FSWs with non-regular clients (Todd et al., 2010).

Another study conducted on FSWs reported that availability of contraceptives also affects their uptake and this is evident as condom availability at work was associated with increased chances of using only condoms for contraception by 1.74 times and decreased chances of unintended pregnancy by 0.63 times, Confinements were associated with decreased chances of dual contraception use by 0.46 times and increased chances of unintended pregnancy by 1.75 times (Chanda et al., 2017).

#### **2.4.3.5 Design of services that is cost of services, waiting time etc.**

According to a study conducted by Nalwadda, et al., (2010), high transport costs, mostly in rural areas, were stated as a hindrance by the youthful women. Some participants reported that transport cost was a problem which made the level of contraceptive uptake reliant on disposable proceeds. Access to the health facilities was further controlled by transport cost effects and distance (Nalwadda et al., 2010).

*"Some women agree on use with their partner but the contraceptives are expensive ...people are too poor here ...sometimes you can fail to get them in the near clinic, you have to spend on transport to town...it is very expensive... you may end up defaulting and getting pregnant"*

(Married women's group, 20-24 years)

Limited opening hours, long waiting time, lack of youth friendly services and specialized clinics for FSWs were other barriers to access that were mentioned (Ferguson and Morris, 2007). This resulted in incidents of self-prescription identified among participants (Nalwadda et al., 2010).

According to Onyango, et al., (2015), financial barriers such as transportation costs or user fees (or in some countries, higher fees for sex workers, injection drug users, or other at-risk populations) prevent majority of the KPs from accessing FP and SRH services. This can also be brought about by the stigma and discrimination experienced by key populations throughout their lives results in differential access to education, livelihoods, and control over financial resources, which, in turn, has implications for the capability to get high-quality health care, including FP and SRH services (Ippoliti et al., 2017).

#### **2.4.3.6 Attitudes and beliefs on contraceptive use**

Overall, 23.6% of the students considered modern contraceptive services including methods hard to have access to and 24.4% found it hard to chat about sexual matters with your partner. 21.3% of the students considered contraceptives as being for the rich people and 20.1% considered it not right for one to use contraceptives. However, only 6 % believed that contraceptives were for females only (Nsubuga et al., 2016).

Religious and social norm also hindered contraceptive use especially Muslim communities like the Somali women through with time when the Finnish society came on board some changes in their ways of life came in place for example SRH services in Finland were extended to them

with contraceptives being available and easily accessed which helped the women prevent unintended pregnancies (Degni et al., 2006).

According to a study by Chipeta et al., (2010), Majority of women were not using contraceptives because they had knowledge gap and also their partners did not support contraceptive use in pregnancy prevention. Depo-Provera was the most preferred contraceptive method among those women that reported use of contraceptives due to the fact that it was hard for partners to know if it was being used, OC pills were also commonly used though they perceived it being dangerous as they were told by the health workers that they could damage body organs and the report also showed that most men did not use contraceptives but preferred the condom (Chipeta et al., 2010).

*“Our husbands tell us that if one is married and according to the Muslim faith, she should expect to have more children”. (Female participant)*

*‘Injection is on great demand because it is secretive. Your husband will not know that you are using any contraceptive method’. (Female participant).*

*“When we get sick because of using pills, at the hospital we are told that the pills have clotted in the intestines and in the uterus and the organs are rotting”. (Female participant)*

Additionally, a study reported common fears among the youth in Kenya regarding the efficiency of condoms and the negative effects they might face like their effectiveness on HIV prevention and reproducing later in life (Tavrow et al., 2012)

According to another study on FSWs, the main barriers to use of contraceptives were the side effects and perceptions for example that contraceptives were for the marrieds with children or the youthful women already sexually active which greatly apprehended over uptake (Burry, 2017).

Also in other study it was reported that the contraceptive side effects of longer menstruation periods and excessive bleeding in women made them fatigued and reduced their sexual desires which reduced their chances of having sex with their partners which turned out to be an inspiration for the men to engage in extramarital sexual affairs (Kabagenyi et al., 2014);

*“Some of [the] women lose their sexual appetite, and no longer want to be with a man and others bleed for all the three months. Sometimes this causes problems in the marriages. When you are with your wife, the feeling is as though you do not have a wife. One ends up looking for sex outside their marriage”. Male FGD Participant, Mpigi.*

According to Ippoliti, et al., (2017), health system factors experienced by the FSWs like discrimination and stigma, compromised confidentiality, not many choices of contraceptives to pick from, knowledge gap on the FP contexts and side effects and HIV/STIs risk, no adequate time by the providers to teach about condom use, low levels of PMTCT awareness and the regular movement of FSWs which made sustained access to health care puzzling. These could be combated through sensitization and training of the health care providers on the which include provision of professional health care services free from stigma and having one stop centers with all the services tagged to KPs, directed outreaches and support from peers (Ippoliti et al., 2017).

#### **2.4.4 Other Factors associated with uptake of contraceptives**

According to another study by Martin, et al., (2015), use of non-barrier contraceptives was associated with being in sex work for long (4 years plus vs <1 year) where those that had been in sex work for long were 4.70 times more like to use non-barrier method than those new ones in the business and those that were having a non-paying partner were 2.02 times more likely to use non-barrier methods than those with paying partners. Chances of using non-barrier contraceptive methods were minimal among FSWs who had worked with a pimps and they were 0.46 times less likely to use the non-barrier than those who were not connected, the FSWS

who had experienced violence with were 0.19 more likely to use non-barrier methods than barrier contraceptive methods had said they were using condoms consistently (Martin et al., 2015).

According to a certain study conducted, age was associated with uptake of non-barrier contraceptive methods, FSWs with early sex debut were 1.04 times less likely to use condoms than those of older age sex debut and were associated with using only one of dual method of contraception (Chanda et al., 2017).

In another study conducted by Yam, et al., (2015), a multivariate analysis reported that contraceptive use was not associated with reduced condom use with both the paying and non-paying clients.

Similarly, another study reported arrests and imprisonment as being associated with decreased chances of dual contraception use by 0.46 times and increased chances of unintended pregnancy by 1.75 times (Chanda et al., 2017)

In view of structural barriers, Ippoliti, et al., (2017), reported some of them like poverty and economic sidelining, stigmatization and discrimination, criminalization of injection drug users and FSWs, Patrolling of FSWs, lack of access to harmless work-related environments, parental consent giving out FP services to youthful KPs. Accordingly these structural barriers could be controlled by applying anti-discrimination and shielding laws to lessen stigma, violence and discrimination against KPs, advocating for human rights for KPs and also provide appropriate legal and protection from police, building relationships with the authorities and FSW, conduct trainings to sensitize reporters and other broadcasting representatives on issues faced by KPs and how best they can improve their quality of coverage (Ippoliti et al., 2017).

## **2.5 Conclusion**

Basing on the evidence from existing literature increasing the contraceptives will reduce unmet need for FP, unplanned pregnancies and abortions. The government should ensure that free or affordable public sector contraceptive services reach all women even the FSWs (Heffron et al., 2012).

Also integrating RH services in HIV and STI services in order to reduce HIV, STIs and unplanned pregnancies has been recommended by the WHO (Dehne and Snow, 1999)

Alongside law reforms, peer-led targeted outreaches for FSWs work should be strengthened and requests for targeted services by FSWs be made known.

Considering a study on KPs, there should be provision of a wide range of contraceptive methods to choose from with adequate counseling coupled with extensive information giving on ways of avoiding pregnancy and harmless conception in case one wants to get pregnant (Ippoliti et al., 2017).

Another study on FSWs, emphasized that targeted interventions should be put in place to increase on the FSWs access to antenatal care including PMTCT services, and increase their enrollment and retention in PMTCT services (Todd et al., 2010). Given FSWs extremely high abortion rates, and having a high unmet need for safe abortion services and post-abortion care services (Delvaux et al., 2003) and this could be used as an entry point for FP services or referrals (Petruney et al., 2012).

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.0 Introduction**

This chapter brings forth the design, methods and tools that were used to conduct this research study. It specified the research design, sampling procedures, research instruments and data collection, sources and analysis techniques that were used in the study.

### **3.1 Research design:**

This was an analytical cross-sectional study design. The cross-sectional study was employed because it allows for a study to be conducted to estimate the prevalence of the outcome of interest for a given population (Levin, 2006).

### **3.2 Area of Study:**

The study was conducted in the southern part of Kampala district. There were 95 hotspots in and around Kampala according to FSW peers. The study focused on only 20 hotspots out of the 95 hotspots. These locations were categorized as Open lodges, open bars, Ghettos or streets and open bar with lodges. These spots were selected because they were known to accommodate the biggest number of FSWs. These are also known places to provide rooms for sex work or selected street spots often frequented by sex workers in search of clients in two divisions (Rubaga and Makindye) in Kampala district. These selected hotspots gave a better representation of the study population with the help of fellow FSWs since at times the same FSWs operate in those other hotspots on different days.

### **3.3 Study Population:**

The study population comprised of FSWs and the sampling frame included all FSWs in the reproductive age who voluntarily consented operating from Rubaga and Makindye division.

### 3.3.1 Inclusion Criteria

- Participant aged 18 years to 49 years.
- Having exchanged sex for money or other commodities within the past 3 months.

### Exclusion criteria

- Visibly pregnant during the study period.

## 3.4 Sampling Procedures

### 3.4.1 Sample size

A sample size of 360 respondents (*see Table1*) was determined using the probability proportional to size method by first sampling the hotspots and from each hotspot the researcher selected the number of FSWs to interview.

$$\sum n_i = N_i * p$$

Where

n= The selected number of FSWs in each Hotspot

N= Estimated Number of FSWs in each Hotspot

P= Probability of selecting a given number in each hotspot

i=The hotspot



**Table 1: Selected Hotspots and Sample size**

Type of Hotspot	Parish	Hotspot (i)	Estimated number of FSWs ( N)	p	ni = N* p	Number of FSWs to be selected in each hotspot
Open lodge	Kabalagala	Diamond Guest House	60	0.06667	23.7	24
Open lodge	Kibuye I	Daido I	60	0.06667	23.7	24
Open lodge	Kibuye II	Dembe Guest House	30	0.03333	11.8	12
Open lodge	Nakulabye	Namirembe Guest House	30	0.03333	11.8	12
Open lodge	Nateete	St.Balikuddembe lodge	70	0.07778	27.6	28
Open lodge	Ndeeba	Blue flame Guest House	20	0.02222	7.9	8
Open bar	Katwe II	Mukulu's Bar, New Highland & Renaissance	105	0.11667	41.4	42
Open bar	Kibuye II	Ewa Salongo	20	0.02222	7.9	8
Open bar	Nakulabye	E-Zone	50	0.05556	19.7	20
Open bar	Ndeeba	Kayoden, Labamba & Joyed	50	0.05556	19.7	20
Ghetto/ on street	Kabalagala	Congo Vision (Ku family)	15	0.01667	5.9	6
Ghetto/ on street	Katwe II	Base Katwe –Kinyoro	70	0.07778	27.6	28
Ghetto/ on street	Kibuye I	Nkere- Nabisaalu	100	0.11111	39.4	40
Ghetto/ on street	Nateete	Pope Paul -Sentera road	20	0.02222	7.9	8
Ghetto/ on street	Ndeeba	Kasindigiri & Jandira	30	0.03333	11.8	12
Open bar with lodge	Kabalagala	Topi's Bar & Lodge	10	0.01111	3.9	4
Open bar with lodge	Kibuye I	Moon bar	20	0.02222	7.9	8
Open bar with lodge	Nakulabye	Jackie's & Newlife Bar and lodges	50	0.05556	19.7	20
Open bar with lodge	Nateete	Bolingo I&II	30	0.03333	11.8	12
Open bar with lodge	Ndeeba	Kaana Guest House	60	0.06667	23.7	24
<b>N(20)</b>			<b>N(900)</b>	<b>Total (n)</b>		<b>n(360)</b>

p- probability

n- Required sample size per hotspot

### **3.4.2 Sampling techniques**

A sample is a portion of the population chosen to represent the entire population (Ingham-Broomfield, 2016) and the purpose of sampling is to attain data from a smaller particular sample which in turn increases efficiency by allowing generalizations to be made about the population without having to examine every member.

In this study, a two-stage cluster stratified sampling design and purposive sampling method were employed at different stages with parishes as clusters and the type of hotspots as strata at the very first stage. Out of the 10 parishes in the 2 divisions (Makindye and Rubaga), the researcher then purposively selected on those hotspots where the probability of getting FSWs was high and selected 4 parishes from Makindye division and 3 parishes from Rubaga. 3 parishes were dropped that is Busega from Rubaga division, Ggaba and Nsambya from Makindye division since they had only one unique type of hotspots. The remaining 7 parishes were chosen purposively since they had at least two unique types of hotspots and had a high probability of getting FSWs which gave the study a better representation.

Out of the 35 hotspots in the 2 divisions the researcher used random sampling to choose 20 hotspots with at least one unique type of hotspot coming from each parish, Open bar had 6 hotspots, open lodge had 4 hotspots, Ghetto /streets had 5 hotspots and open bar and Lodge had 5 hotspots.

### **3.5 Data Collection Methods and Instruments**

The researcher only concentrated mainly on quantitative data collection methods in which questionnaires were administered to the respondents with both open ended and closed ended questions. The quantitative data collection method was used because its more scientific and often allows for very little or no bias at all (Blanche et al., 2006).

### **3.6 Quality Control Methods**

The instruments were developed in consultation with existing research studies focusing on contraceptives and Female sex workers to ensure validity and reliability of the instruments. The developed tools were pre-tested on FSWs in Kampala Rubaga Division to ensure that data collected is uniform and informative. After the pre-test the researcher had to change the version of the questionnaire That means the instruments were able to produce consistent scores when the same groups of individuals were repeatedly measured under the same conditions.

The researcher recruited and conducted a 1-day effective training of 2 data collectors to equip them with necessary skills for data collection. In the different hotspots the researcher shared the introductory letter from the university. Before filing all data collection tools the researcher assigned unique identifiers to eliminate duplicates and ensure anonymity.

The researcher also considered some of the steps during data collection process to enhance quality of results. The research used interviewer-administered tools to enable probing of responses. Effective training of data collectors was carried out to equip them with necessary skills for data collection, interview techniques and maintaining high levels of confidentiality. Probability sampling method (probability proportion to size sampling) was used to eliminate the sampling bias. Consent was acquired from respondents. Immediate data cleaning in the field was done by the data collectors at the end of the day and rigorous data cleaning through use of statistical software (STATA and Excel) was done.

### **3.7 Data Management and processing**

The researcher then collected data from each data collector and stored it in a safe place for further cleaning, entry and analysis. The collected data was rechecked for completeness and consistency. Data were then coded, entered using EPI-INFO software and then exported in excel.

### 3.8 Data Analysis

The collected data was analysed using Microsoft Excel and STATA software. Data were analyzed at three levels; univariate through generation of summary (frequency) tables and graphs where necessary, bivariate through cross tabulations and tests of association between each individual factor and uptake of contraceptives. Since uptake of contraceptives is dichotomous (binary), a Logistic regression was employed at multivariate level. Like all regression analyses, the logistic regression was our predictive analysis which was used to describe data and to explain the relationship between the dependent binary variable (uptake of contraceptives) and one or more nominal, ordinal, interval or ratio-level independent variables (factors associated with the uptake like Age, income status, Religion, alcohol use and many others).

The logistic regression model to be applied in the study was as follows;

#### Equation 1: Logistic regression model

$$P = 1/(1 + e^{-(\beta\theta + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \dots + \beta_nX_n)}) \quad , \quad -\infty < n < \infty$$

Where;

$P$ - is the probability that an individual takes contraceptives

$e$ - is the base of the natural logarithm (about 2.718)

$\beta\theta$  - is the intercept

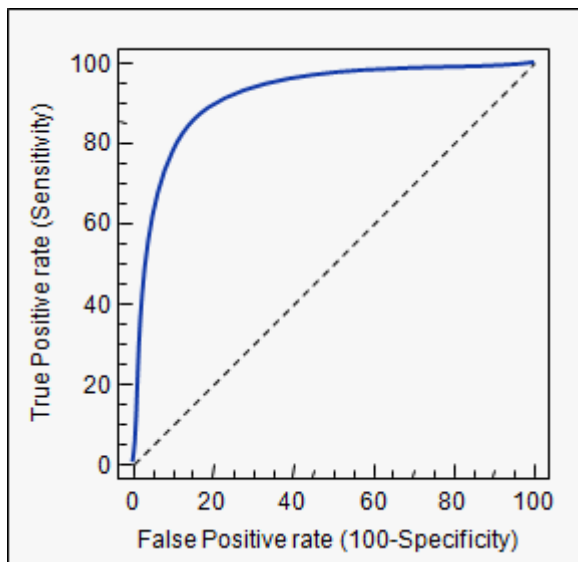
$\beta_1, \beta_2, \dots, \beta_n$  -are the coefficients of different variables

$X_1, X_2, \dots, X_n$ - are the different variables.

The value of  $\beta\theta$  yields  $P$  when  $X_n$  is zero, and  $\beta_n$  adjusts how quickly the probability changes with changing  $X_n$  a single unit (we can have standardized and unstandardized b weights in logistic regression, just as in ordinary linear regression). Because the relation between  $X_n$  and  $P$  is nonlinear,  $\beta\theta$  does not have a straightforward interpretation in this model as it does in ordinary linear regression.

To test the goodness of fit of the Logistic model to the data, Receiver Operating Characteristic (ROC) curve where the true positive rate (Sensitivity) is plotted in function of the false positive rate (100-Specificity) for different cut-off points was used. Each point on the ROC curve represents a sensitivity/specificity pair corresponding to a particular decision threshold. A test with perfect discrimination (no overlap in the two distributions) has a ROC curve that passes through the upper left corner (100% sensitivity, 100% specificity). Therefore the closer the ROC curve is to the upper left corner, the higher the overall accuracy of the test (Zweig and Campbell, 1993).

**Figure 2: ROC curve**



### 3.9 Study variables

To enhance the rigor of this study, the following variables were measured.

**Table 2: Research Study variables**

Objectives	Study variables	Indicator	Data collection Method	Source of data
To determine the uptake of Contraceptives among female sex workers in Kampala	<ul style="list-style-type: none"> <li>● Contraceptive Uptake</li> </ul>	<ul style="list-style-type: none"> <li>● Proportion of women using contraceptives currently</li> </ul>	Questionnaire	Primary data from FSWs
To find out commonly used method among female sex workers in Kampala	<ul style="list-style-type: none"> <li>● Types of contraceptives (Barrier and non-barrier)</li> <li>● Commonly used contraceptive methods</li> <li>● Most preferred method of contraceptives</li> </ul>	<ul style="list-style-type: none"> <li>● Frequency of contraceptives methods commonly used</li> <li>● Proportion of women using both condoms and any other contraceptive method.</li> <li>● Frequency of most preferred method.</li> </ul>	Questionnaire	Primary data from FSWs
To determine factors associated with choice of Contraceptive method among female sex workers in Kampala.	<p><b>Individual Factors</b></p> <ul style="list-style-type: none"> <li>● Age group</li> <li>● Marital status</li> <li>● Education level</li> <li>● Religion</li> <li>● Frequency to hotspot</li> <li>● Average monthly income</li> <li>● Number of clients on a typical day,</li> <li>● Alcohol consumption</li> <li>● Drug use</li> <li>● Client ever been pregnant</li> <li>● The number of children</li> </ul>	<ul style="list-style-type: none"> <li>● Frequency of the given factor,</li> <li>● Statistical significance of the given analysis while analyzing the factors. Statistical tables for testing the degree of significance between the two variables were used.</li> </ul>	<ul style="list-style-type: none"> <li>● Questionnaire</li> </ul>	Primary data from the FSWs

### **3.10 Ethical Considerations**

The entire research process was conducted with due respect to ethical considerations under Research Department of Uganda Martyrs University. A full proposal was developed and approved by Uganda Martyrs University and endorsed by the supervisor. An introduction letter from the University was then presented by the researcher to the Kampala Capital City Authority divisions of Makindye and Rubaga and the respondents.

The FSWs were given full explanation about the purpose of the study, assurance about the confidentiality of the information and that the participation was optional. Persons selected for the interview were informed about the purpose of the study and their written informed consent were obtained.

Research assistants ensured privacy and confidentiality during the interviews. The names of respondents were not recorded and the information collected was used for study purposes only and kept confidential.

### **3.11 Limitations of the study**

Being a Kampala based study the researcher encountered difficulties in openness of respondents however the researcher clarified the main purpose of the study and also emphasized using anonymous questionnaire identifiers and ensuring full confidentiality which curbed this challenge.

Some of the responses given to the interviewer administered face-to-face interviews influenced by poor understanding of the question, recollection bias, social desirability bias, or reluctance to divulge sensitive information giving.

## CHAPTER FOUR: PRESENTATION AND ANALYSIS OF FINDINGS

### 4.0 Introduction

This chapter presents finding from this study plus respective interpretation. It starts by presenting background characteristics of respondents, then the uptake of Contraceptives among female sex workers, followed by the commonly used method and lastly the factors associated with choice of Contraceptive method among female sex workers in Kampala.

### 4.1 Background characteristics

Basing on the inclusion criteria under methodology, the response rate of the study was 100%. A total of 360 FWSs in Makindye and Rubaga Division in Kampala District were interviewed.

**Table 3: Key socio-demographic characteristics of respondents**

Variable	Frequency (n=360)	Percentage (%)
<b>Age group</b>		
18-24	81	23
25-29	87	24
30-34	77	21
>=35	115	32
<b>Type of Hotspot</b>		
Open lodge	108	30
Open Bar	90	25
Ghetto	94	26
Open bar and lodge	68	19
<b>Marital Status</b>		
Single	80	22
Married	82	23
Cohabiting	64	18
Widowed/Divorced/Separated	134	37
<b>Education Level</b>		
No formal education	45	13
Primary	211	59
O Level	74	21
A level	30	8
<b>Religion</b>		
Catholic	147	41
Anglican	97	27
Muslim	56	16
Pentecostal	47	13
SDA	13	4
<b>Main Occupation</b>		
Sex work	165	46
Sex work and other job	195	54



Demographic characteristics of respondents were analysed using tabulations. Majority of the respondents 115/360 (32%) were aged 35 years and above followed by 25-29 years at 87/360 (24%) then 18-24 years at 81/360 (23%) and lastly respondents aged 30-34 at 77/360 (21%).

Majority of respondents 211/360 (59%) reported Primary level as their highest level of education, 74/360 (21%) reported O level as level of education, 45/360(13%) reported no formal education and 30/360 (8%) had A level.

Almost a half 147/360 (41%) of the study respondents were Catholics, 97/360 (27%) were Anglican, 47/360 (13%) were Pentecostal and 13/360 (4%) were SDA.

**Table 4: Average age and Average Age at first Marriage**

<b>variable</b>	<b>n</b>	<b>mean</b>	<b>Median</b>
<b>Age</b>	360	30.9	30
<b>Age at first marriage</b>	334	16.6	17

From table 4 above, the mean age is 30.9 years and median age is 30, while the mean age at first marriage being 16.6 years with median of 17 years.

In addition to the above socio-demographics below is another table indicating some other important background characteristics.

**Table 5: Other background characteristics**

<b>Variable</b>	<b>Frequency(n=360)</b>	<b>Percentage (%)</b>
<b>Frequency to Hotspot</b>		
1-2 Times	59	16
3- 4 Times	119	33
>5 Times	182	51
<b>Average monthly Income (Ug shillings)</b>		
<200000	32	9
200000-400000	83	23
400000-600000	133	37
>600000	112	31
<b>How many clients do you get on a typical day</b>		
1-2	23	7
3-4	246	68
>=5	91	25
<b>Ever Pregnant</b>		
No	22	6
Yes	338	94
<b>Having children</b>		
No	40	11
Yes	320	89
<b>Number of Children</b>		
0	40	11
1	57	16
>=2	263	73
<b>Alcohol Consumption</b>		
No	73	20
Yes	287	80
<b>Drug Use</b>		
No	170	47
Yes	190	53
<b>Reason for Involving in Sex work</b>		
Financial need	353	98
Fun and Financial need	7	2

Almost all the respondents 338/360 (94%) had ever been pregnant compared to only 22/360 (6%) that have never been pregnant.

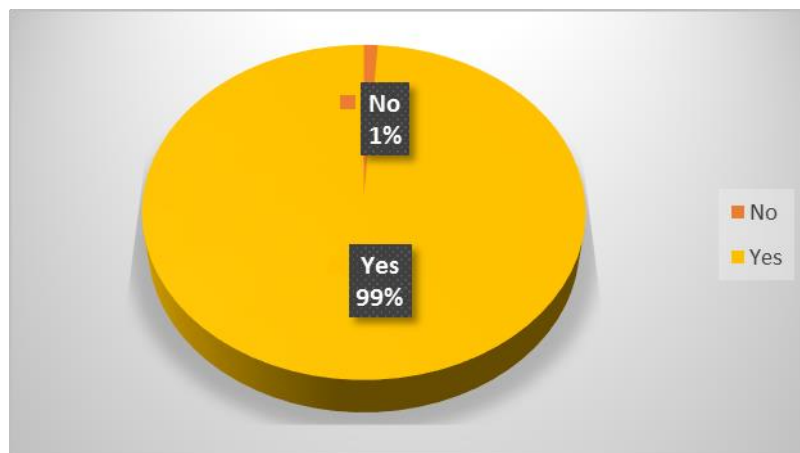
The majority 320/360 (89%) of the respondents have children with 263/360 (73%) have more than two children of their own.

The majority of the respondents 287/360 (80%) consumed drinks containing alcohol and more than a half 190/360 (53%) were using drugs. The main reason for involvement in sex work by the respondents was financial need at 353/360 (98%) with fun and financial need at 7/360 (2%).

#### 4.2 Uptake of contraceptives among FSWs

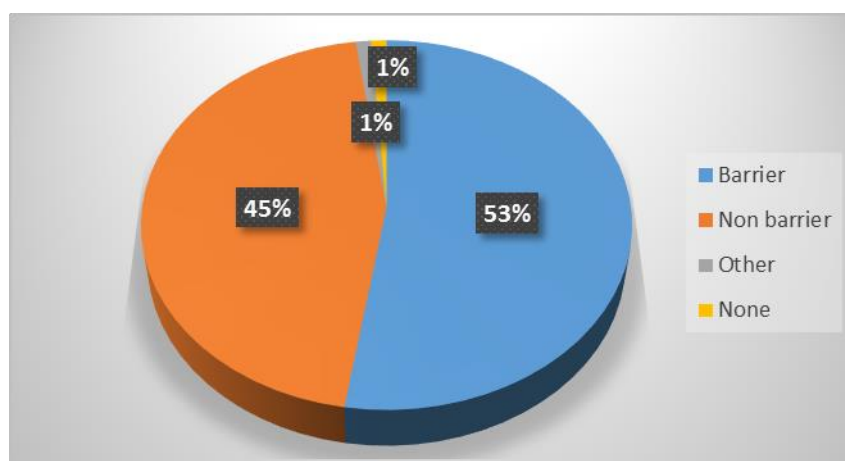
Analysis of this objective looked at three main categories; the contraceptive prevalence (*refer to operational definition*), the contraceptive prevalence of barrier and also the non-barrier methods.

**Figure 3: Contraceptive prevalence**



From figure 3 above it will be noted that 356/360 (99%) of the respondents were currently using contraceptives and just 4/360 (1%) not using contraceptives.

**Figure 4: Contraceptive prevalence of barrier and non-barrier methods**



According to figure 4 above a number of respondents 189/360 (53%) use more of barrier contraceptive methods than non-barrier methods 163/360 (45%) and the rest of the respondents use other methods or none.

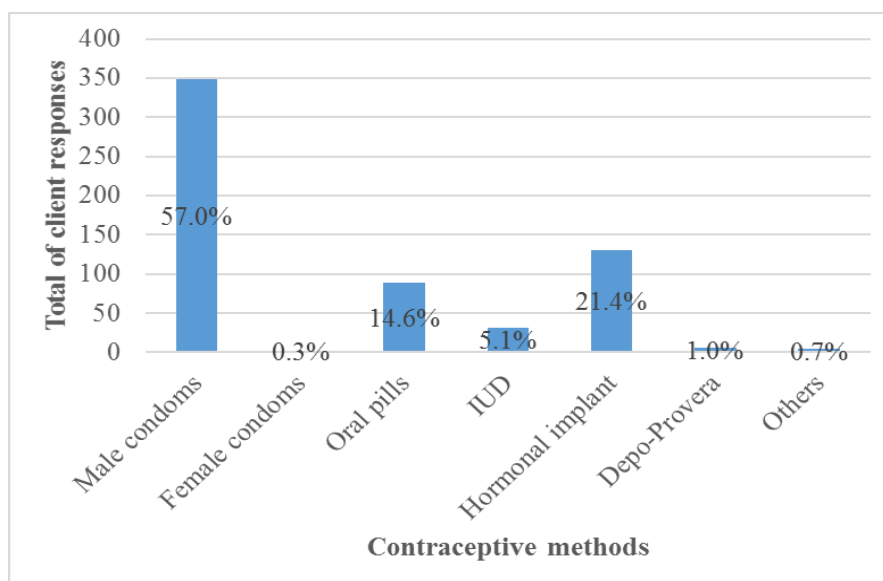
### 4.3 Commonly used contraceptive methods by FSWs

Analysis of this objective mainly looked at the contraceptive methods used to avoid pregnancy, the most preferred contraceptive method.

#### 4.3.1 Contraceptive methods used to avoid pregnancy

The analysis in this section looked at the different contraceptive methods, reasons for using a particular contraceptive method and places where the different contraceptive methods are got.

**Figure 5: Contraceptive methods used to avoid pregnancy**



From the above figure 5, you will note that different contraceptives are used to avoid pregnancy according to the study. The respondents knew about some methods of contraceptives used to avoid pregnancy were majority of respondents (57.0%) mentioned male condoms, 21.4% Hormonal implants, 14.6% oral pills, 5.1% IUD, 1.0% Depo-Provera, 0.7% mentioned others which included moon beads and 0.3% female condoms.

**Figure 6: Reasons for using contraceptives**

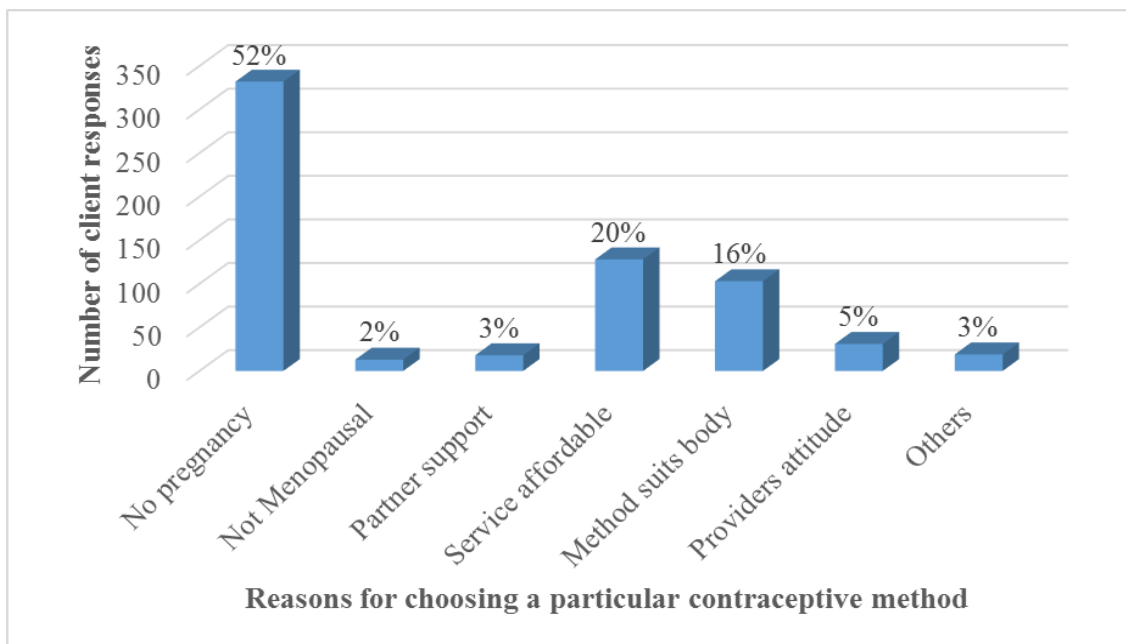


Figure 6 above indicates that a number of the respondent's (52%) main reason for using a particular contraceptive method is to avoid pregnancy, followed by service being affordable (20%), 16% reported that if method suits the body with 5% reporting provider's attitude affects their choice of contraceptive.

**Figure 7: Places where contraceptive methods are normally obtained from.**

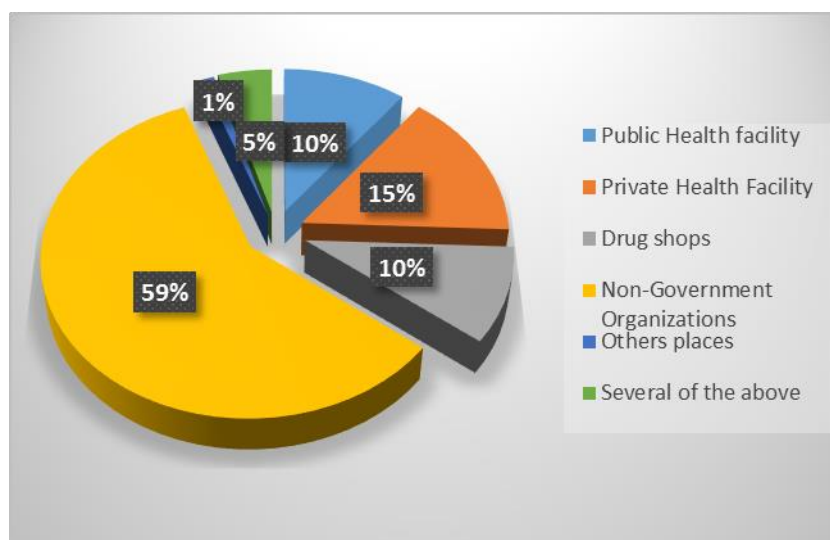


Figure7 above shows that 59% get contraceptives from a Non-Government organizations, 15% from private health facility, 10% from drug shops and 10% from public health facility.

### 4.3.2 Most preferred contraceptive method

Analysis in this section looks at the most preferred contraceptive method and the barriers to contraceptive methods.

**Figure 8: Most preferred contraceptive Method**

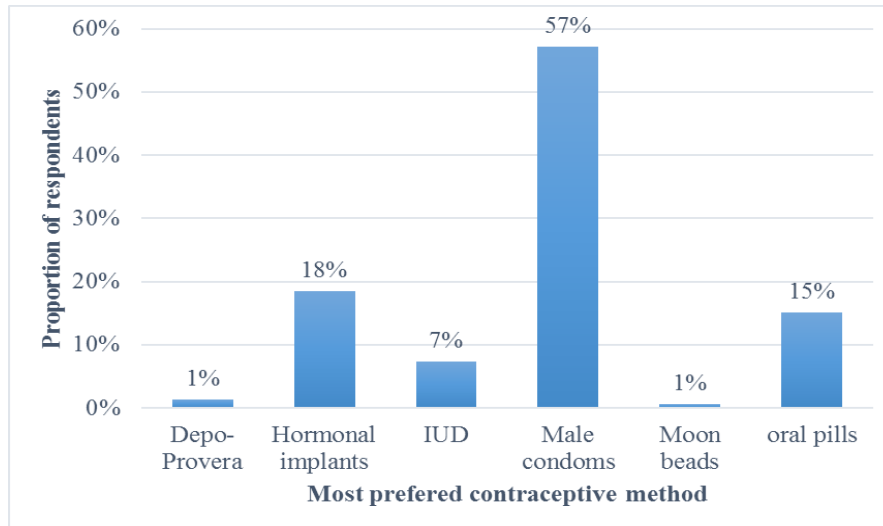
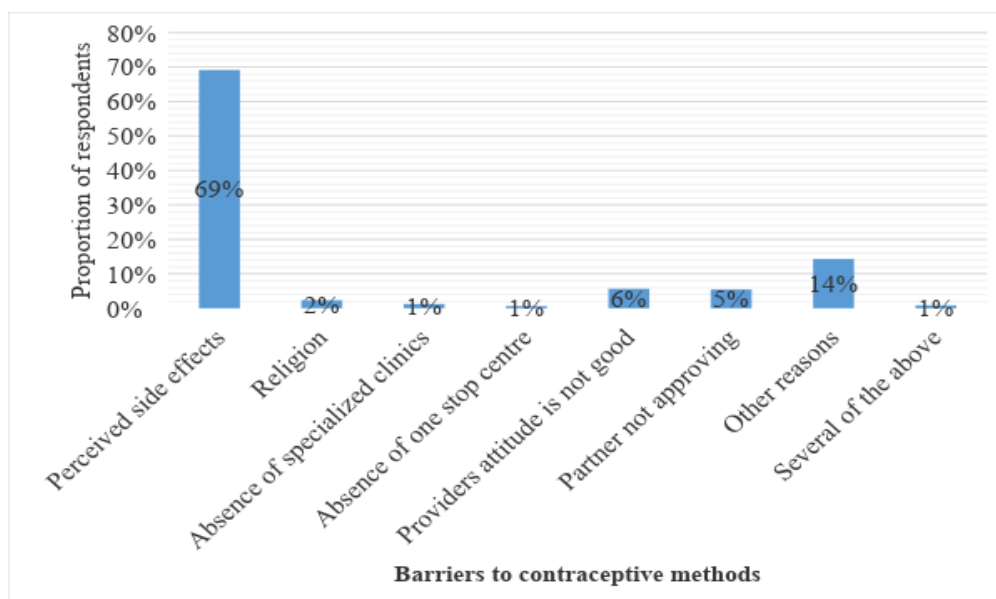


Figure 8 above you will notice that a good number of respondent's 204/360 (57%) most preferred contraceptive method is male condoms followed by hormonal implants 66/360 (18%) and the least preferred is moon beads 2/360 (1%).

**Figure 9: Barriers to use of contraceptive methods**



From figure 9 above perceived side effects (69%) was the most reported barrier to contraceptive uptake followed by other reasons (14%) like I do not want, provider's attitude not good (6%), partner not approving (5%) and religion (2%)

#### **4.4.0 Factors associated with choice of contraceptive method**

Analysis of this objective looked at mainly the factors associated with the two types of contraceptive methods that is the barrier and the non-barrier methods.

The researcher determined the factors associated with choice of contraceptive method among the FSWs by focusing on key demographic characteristics that included age group, marital status, education level, religion, frequency to hotspot, average monthly income, number of clients on a typical day, alcohol consumption, drug use, client ever been pregnant and the number of children against the barrier contraceptive methods and the non-barrier contraceptive methods.

#### **4.4.1 Factors associated with non-barrier contraceptive methods**

In this category the researcher assessed the key demographic characteristics (Age group, marital status, education level, religion, frequency to hotspot, average monthly income, number of clients on a typical day, alcohol consumption, drug use, client ever been pregnant and the number of children) against the non-barrier contraceptive methods to determine the factors associated with the non-barrier contraceptive methods.

To identify factors associated with uptake of non-barrier contraceptive methods logistic regression model was fitted.

On binary logistic regression analysis, causal benefit based relationship, the education level, alcohol consumption, ever been pregnant and number of children were associated with the uptake of non-barrier contraceptive methods.

Participants who had ever been pregnant were 2.9 times more likely to use non-barrier contraceptive methods (COR = 2.9[95% CI: 1.0 – 8.0]) than those had never been. The number of children the participant had was associated with uptake non-barrier contraceptive method. Sex workers with one child was 2.4 times more likely to use non-barrier contraceptive methods (COR = 2.4[95% CI: 1.0 – 5.7]) than those that had no children. Similarly, those study participants with more than 2 children were 2.4 times more likely to use non-barrier contraceptive methods (COR = 2.1 [95% CI: 1.0 – 4.3]).

Participants consuming drinks containing Alcohol were 2.2 times more likely to use the non with non-barrier contraceptive methods (COR = 2.2[95% CI: 1.3 – 3.8]) than those not consuming any drinks containing alcohol.

The other significant association obtained from the binary logistic regression was level of education. Those study participants with primary level education were 0.4 times less likely than female sex workers with no formal education to use the non-barrier contraceptive methods (COR = 0.4[95% CI:0.2 – 0.8]).

Finally, a multi variable logistic regression was carried out to see the independent predictors of uptake of non-barrier contraceptive methods. After adjusting for potential confounders having primary level education (AOR=0.5[95% C.I:0.22-0.95]) and consuming drinks containing Alcohol (AOR=2.75[95% C.I:1.42-5.32]) were independent predictors of uptake non-barrier contraceptive methods (Table 6).



**Table 6: Factors associated with uptake of non-barrier contraceptive methods**

	% Non-barrier (N=163)	Crude Odd Ratio			P value	Adjusted Odd Ratio			P value
		OR	95% CI			OR	95% CI		
<b>Age group</b>									
18-24(Ref)	47	1				1			
25-29	43	0.84	0.45499	1.55082	0.577	0.62775	0.28438	1.38571	0.249
30-34	51	1.16501	0.62147	2.18392	0.634	0.77156	0.33945	1.75374	0.536
>35	44	0.9009	0.50586	1.60445	0.723	0.67995	0.30808	1.50068	0.34
<b>Marital Status</b>									
Single(Ref)	39	1				1			
Married	46	1.30205	0.69447	2.44121	0.41	1.45372	0.65333	3.23464	0.359
Cohabiting	51	1.59834	0.81849	3.12122	0.17	1.35334	0.59482	3.07909	0.471
Widowed	47	1.39355	0.79163	2.45313	0.25	1.32032	0.64509	2.70232	0.447
<b>Education Level</b>									
No formal Education(Ref)	58	1				1			
Primary	36	<b>0.41758</b>	<b>0.21686</b>	<b>0.80411</b>	<b>0.009*</b>	<b>0.45941</b>	<b>0.2213</b>	<b>0.95371</b>	<b>0.037**</b>
O Level	60	1.08355	0.50871	2.30799	0.835	1.32082	0.55375	3.15049	0.53
A level	60	1.09615	0.42822	2.80593	0.848	1.36206	0.47351	3.91794	0.567
<b>Religion</b>									
Catholic(Ref)	46	1				1			
Anglican	43	0.88901	0.52981	1.49173	0.656	1.24578	0.69347	2.23798	0.462
Muslim	44	0.9013	0.48246	1.68377	0.744	0.89545	0.43696	1.83504	0.763
Pentecostal	46	0.97791	0.50256	1.90289	0.948	0.93427	0.4293	2.03323	0.864
SDA	69	2.6194	0.77163	8.89197	0.123	3.55361	0.92286	13.6836	0.065
<b>frequency to hot spot</b>									
1-2 Times(Ref)	53	1				1			
3 - 4 Times	48	.830385	0.44453	1.55117	0.56	0.76065	0.37018	1.56302	0.457
>5 Times	42	0.65769	0.3641	1.188	0.165	0.60661	0.31094	1.18346	0.143

Average Monthly Income										
<200000(Ref)	52	1					1			
200000-400000	51	0.9603 7	0.42068	2.1924	0.924	0.72738	0.2724 8	1.9416 9	0.525	
400000-600000	41	0.6574 7	0.29969	1.44235	0.295	0.50347	0.1970 1	1.2866 6	0.152	
>600000	46	0 .79687 5	0.35906	1.76853	0.577	0.49791	0.1829 2	1.3553 3	0.172	
Number of clients on a typical										
1(Ref)	35	1					1			
2-4	46	1.5767 1	0.64463	3.85649	0.318	2.17186	0.7541 2	6.2549 3	0.151	
>=5	49	1.7934 8	0.69194	4.64863	0.229	2.25383	0.7389 7	6.8741 3	0.153	
Alcohol consumption										
No(Ref)	31	1					1			
Yes	49	2.1808 7	1.25321	3.7952	0.006* *	2.75245	1.4235 1	5.3220 5	0.003 **	
Drug use										
No(Ref)	46	1					1			
Yes	45	0.9522	0.62712	1.4458	0.818	0.84463	0.5124	1.3922 8	0.508	
Ever been pregnant										
No(Ref)	24	1					1			
Yes	47	2.8565	1.02302	7.97599	0.045* *	1.14629	0.2353 7	5.5825 1	0.866	
Number of children										
0(Ref)	30	1					1			
1	51	2.4166 7	1.03021	5.66903	0.043* *	2.64453	0.7331	9.5396 3	0.137	
>=2	47	2.0778 6	1.0125	4.26421	0.046* *	1.99346	0.6038 4	6.5810 2	0.258	

**\*\* means association is statistically significant at 5% level of significance, Ref-reference variable**

#### 4.4.2 Barrier contraceptive methods

In this category the researcher assessed the key demographic characteristics (Age group, marital status, education level, religion, frequency to hotspot, average monthly income, number of clients on a typical day, alcohol consumption, drug use, client ever been pregnant and the number of children) against the barrier contraceptive methods to determine the factors associated with the non-barrier contraceptive methods.

To identify factors associated with uptake of barrier contraceptive methods, according to the predicted probabilities, logistic regression model was fitted. On binary logistic regression analysis, causal benefit based relationship, the education level, Religion, alcohol consumption, ever been pregnant and number of children were associated with the uptake of barrier contraceptive methods.

Participants with primary education level were 2.47 times more likely to use barrier contraceptive methods (COR = 2.47[95% CI: 1.28 – 4.77]) than those with no formal education. The religion of the participant was associated with uptake barrier contraceptive method. SDA were 0.2 times less likely to use barrier contraceptive methods (COR = 0.2[95% CI: 0.04 – 0.75]) than the Catholics. Participants consuming drinks containing Alcohol were 0.47 times less likely to use the barrier contraceptive methods (COR = 0.47 [95% CI: 0.27 – 0.81]) than those not consuming any drinks containing alcohol.

The number of children the participant had was associated with uptake barrier contraceptive method. Sex workers with one child was 0.4 times less likely to use barrier contraceptive methods (COR = 0.4[95% CI: 0.16 – 0.91]) than those that had no children. Similarly, those study participants with more than 2 children were 0.5 times less likely to use barrier contraceptive methods (COR = 0.5 [95% CI: 0.22 – 0.94]).

The other significant association obtained from the binary logistic regression was ever been pregnant. Those study participants who have even been pregnant were 0.3 times less likely than to use the barrier contraceptive methods (COR = 0.3[95% CI: 0.12 – 0.93]).

Finally, a multi variable logistic regression was carried out to see the independent predictors of uptake of barrier contraceptive methods. After adjusting for potential confounders having primary education level (AOR=2.2[95% C.I:1.05-4.63]), SDA religion (AOR=0.11[95% C.I:0.02-0.57]) and consuming drinks containing Alcohol (AOR = 0.37 [95%

CI: 0.19 – 0.71]) were independent predictors of uptake barrier contraceptive methods (Table 7).

**Table 7: Factors associated with uptake of barrier contraceptive methods**

	% Barrier methods (N=189)	Crude Odd Ratio			P value	Adjusted Odd Ratio			P value
		OR	95% CI			OR	95% CI		
<b>Age group</b>									
18-24(Ref)	52	1				1			
25-29	55	1.14071	0.61919	2.10149	0.673	1.69919	0.76532	3.77261	0.193
30-34	49	0.90306	0.48193	1.6922	0.75	1.52829	0.66818	3.49559	0.315
>35	55	1.12673	0.63322	2.00486	0.685	1.73585	0.78103	3.85795	0.176
<b>Marital Status</b>									
Single(Ref)	61	1				1			
Married	53	0.73081	0.39001	1.36943	0.328	0.64603	0.28882	1.44503	0.287
Cohabiting	49	0.62565	0.32039	1.22177	0.17	0.74253	0.32486	1.69719	0.48
Widowed	50	0.65562	0.37254	1.1538	0.143	0.68822	0.33461	1.41551	0.31
<b>Education Level</b>									
No formal education(Ref)	40	1				1			
<b>Primary</b>	<b>62</b>	<b>2.46835</b>	<b>1.27745</b>	<b>4.76948</b>	<b>0.007**</b>	<b>2.20353</b>	<b>1.04832</b>	<b>4.63172</b>	<b>0.037*</b>
O Level	40	1.01163	0.47314	2.16299	0.976	0.80624	0.33501	1.94032	0.631
A level	40	1	0.38946	2.56764	1	0.74202	0.25443	2.164	0.585
<b>Religion</b>									
Catholic(Ref)	53	1				1			
Anglican	57	1.15646	0.68934	1.94013	0.582	0.81018	0.45057	1.4568	0.482
Muslim	56	1.14069	0.6107	2.13064	0.68	1.18114	0.57444	2.4286	0.651
Pentecostal	52	0.9634	0.49589	1.87167	0.912	0.99243	0.4567	2.15657	0.985
<b>SDA</b>	<b>15</b>	<b>0.16057</b>	<b>0.03437</b>	<b>0.75013</b>	<b>0.02*</b>	<b>0.10769</b>	<b>0.02029</b>	<b>0.57156</b>	<b>0.009*</b>
<b>frequency to hot spot</b>									
1-2 Times(Ref)	47	1				1			
3-4 Times	50	1.08869	0.58291	2.03333	0.79	1.10547	0.53554	2.28192	0.786
>5 Times	57	1.4859	0.82283	2.68332	0.189	1.5536	0.7938	3.04064	0.198
<b>Average Monthly Income</b>									
<200000(Ref)	48	1				1			
200000-400000	49	1.04127	0.45612	2.37709	0.924	1.43033	0.53203	3.8453	0.478

400000-600000	57	1.42857	0.65169	3.13157	0.373		1.79514	0.6979	4.61743	0.225
>600000	52	1.1673	0.52618	2.58958	0.704		1.91924	0.69829	5.27502	0.206
<b>Number of clients on a typical</b>										
1(Ref)	65	1					1			
04-Feb	54	0.63423	0.2593	1.55129	0.318		0.46102	0.15913	1.33564	0.154
>=5	47	0.46667	0.17998	1.21001	0.117		0.35253	0.1148	1.08256	0.069
<b>Alcohol consumption</b>										
No(Ref)	68	1					1			
Yes	<b>49</b>	<b>0.46918</b>	<b>0.27107</b>	<b>0.81208</b>	<b>0.007**</b>		<b>0.36528</b>	<b>0.18879</b>	<b>0.70679</b>	<b>0.003*</b>
<b>Drug use</b>										
No(Ref)	52	1					1			
Yes	54	1.10425	0.72771	1.67563	0.641		1.23758	0.7471	2.05009	0.408
<b>Ever been pregnant</b>										
No(Ref)	76	1					1			
Yes	<b>52</b>	<b>0.33372</b>	<b>0.11952</b>	<b>0.93177</b>	<b>0.036**</b>		0.90571	0.18629	4.40346	0.902
<b>Number of children</b>										
0(Ref)	70	1					1			
<b>1</b>	<b>47</b>	<b>0.38571</b>	<b>0.16436</b>	<b>0.90516</b>	<b>0.029**</b>		0.35137	0.09721	1.27009	0.111
>=2	<b>52</b>	<b>0.45943</b>	<b>0.22389</b>	<b>0.94276</b>	<b>0.034**</b>		0.4698	0.1423	1.55104	0.215
<b>** means association is statistically significant at 5% level of significance , Ref-Reference variable</b>										

## **CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATIONS**

### **5.0 Introduction**

This chapter starts by summarizing the findings from the study, makes key conclusions, and lastly gives recommendations

### **5.1 Summary of Findings**

This section the researcher summarizes findings in relation to existing literature. This will start with contraceptive uptake overall and then consider the barrier and non-barrier, the commonly used contraceptive methods and lastly the factors associated with contraceptive uptake among FSWs. Results of this study indicate that majority of the study respondents joined commercial sex work after divorce/separation and most of them are semi illiterate.

#### **5.1.1 Contraceptive uptake**

This study showed that over 99% of FSWs were using contraceptives showing a difference with other studies conducted in developed countries like the UDHS (2016) which showed the contraceptive prevalence rate of Uganda is 26%. The 99% is also attributed to condoms since this study was looking at FSWs which is also confirmed in a study conducted in Cambodia that reported 99.0% condom use at last commercial sex (Morineau et al., 2011).

There was a slight difference in the contraceptive uptake among FSWs by another study conducted in Afghanistan that reported at 85.2% with (90.0%) stating pregnancy was not currently desirable amongst the FSWs (Todd et al., 2010) and contraceptive uptake at 91% in another study (Weldegebreal et al., 2015). This implies that condom supply should be constant and they should be provided free as it's the most preferred method with increase sensitization on the correct and consistency use.

In this study we went ahead to categorize the contraceptive methods into barrier and non-barrier methods and the study found out that (53%) use more of barrier contraceptive methods than

non-barrier methods (45%) with 1% using traditional methods showing a difference in others studies with 6% using a traditional method (UBOS, 2017). According to another study among FSWs it was reported that 55% used barrier contraceptives and 45% preferred non-barrier contraceptive methods (Vandepitte et al., 2013).

There was a difference in uptake of this study compared to a study done in Zambia that reported barrier contraceptive at 10.8%, non-barrier contraceptive at 48.5%, none contraceptive at 22.5% and dual protection at 18.3% (Chanda et al., 2017). This difference however could be due to the strong religious and social norms in that country.

### **5.1.2 Commonly used contraceptive Methods**

This study showed that a higher proportion of FSWs (57.0%) reported male condoms, 21.4% Hormonal implants, 14.6% oral pills, 5.1% IUD, 1.0% Depo-Provera, 0.7% traditional methods which included moon beads and 0.3% female condoms which is in agreement with Khan, et al., (2007) that reported the most commonly used modern methods are the pill, injectable, and the male condom. There is a slight difference with Zhang, et al., (2014) showing varying prevalence of condoms (69%) and oral contraceptives (38%) were most commonly reported, and less than 3% had ever relied on an intrauterine device.

According to this study the male condom was the most preferred contraceptive method which also explain why it is the most commonly used. In addition, this study further gives evidence that FSWs may prioritize disease prevention and pregnancy prevention differently from different sexual partners. Also in another study a very large proportion of FSWs in Durban, and to a lesser extent in Mombasa, rely on condoms alone for contraception (Lafort et al., 2017). A tendency to prioritize condom use and other contraceptive methods differently across partners has been reported in non-FSW populations. A recurrent finding is that women who

use other contraception tend to be less likely to use condoms with more steady partners (Yam et al., 2013b).

This study is also in agreement with Katz, et al, (2015) that reported almost all participants having used condoms in the past 30 days, and 44.0% of hotel-based FSWs and 30.0% of street-based FSWs reported dual method use during that period. SRH services had been obtained by 64.0% of hotel-based and 89.0% of street-based FSWs in the past six months; drop-in centres were their preferred site for receiving health services (Katz et al., 2015) .Additionally, another study reported more of condom use, 36.0% used a male condom, 2.0% used a traditional method, and 24.0% used a hormonal method during their last sex act, and 86% that preventing future pregnancy was moderately very important (Khan et al., 2009).

Another study also confirmed that with the exception of condoms and emergency contraception, current use of modern contraception was very low (<10%), it went ahead and reported the most common current contraception used was condoms (91%), followed by emergency contraception (21%), and withdrawal (20%) (Lim et al., 2015). There is usually a great reliance on male condoms by FSWs, coupled with inconsistent use at last sex though in most cases dual method use was frequent(Sutherland et al., 2011).

A study among FSWs living with HIV also reported Male condoms remained the contraceptive method of choice with an overall condom use during the last 6 months of 91% post-implementation vs. 95.6% pre-implementation ( $p=0.11$ ) (Thyda et al., 2015). Our study was also in agreement with another study by Erickson, et al., (2015), that reported the most common forms of non-barrier contraception used alongside condoms being Depo-Provera or other injectables, birth control pills, and implants. Overall, 41 (10.3%) participants had never used condoms for pregnancy prevention, and only 199 (49.8%) had ever used hormonal



contraceptives (i.e. birth control pills, Depo-Provera injectables, or implants). (Erickson et al., 2015).

The high contraceptive uptake is attributed to embracing more of the condom contraceptive method and dual protection among FSWs, therefore, it is important to integrate SRH services for FSWs in the formal healthcare system or integration of abortion and maternal healthcare services within existing HIV prevention services. And also HIV and SRH services developed in partnership with sex workers should be considered to increase on the uptake of both barrier and non-barrier methods and promote sexual and reproductive health and rights.

The reproductive health or FP programmes especially for hard to reach populations need to ensure free and constant supply of condoms and others, sensitization on correct and consistency use of condoms. The FP programme should also increase on the dispensing points apart from health centres for examples in bars and lodges which can be freely accessed since the issue of failure to use barrier methods has serious implications for HIV and STI transmission.

### **5.1.3 Factors associated with contraceptive uptake**

According to this study, there was a difference in contraceptive prevalence among barriers at 53% compared to non-barriers at 45% in FSWs which is similar to another study that reported 55% used barrier contraceptives and 45% preferred non-barrier contraceptive methods (Vandepitte et al., 2013). This suggests that FSWs are more comfortable with barrier methods than non-barrier methods.

In this present study, FSWs using non-barrier contraceptives who have ever been pregnant were 2.9 times more likely to use non-barrier contraceptive methods than those have never been pregnant. This would increase their chances of HIV or STI infections hence the need to educate more on dual protection. The number of children the participant had was associated with uptake non-barrier contraceptive method whereby those with 1 child were 2.4 time more likely to use

non-barrier contraceptive methods (COR = 2.4[95% CI: 1.0 – 5.7]) than those that had no children. Similarly, in this study those study participants with more than 2 children were 2.4 times more likely to use non-barrier contraceptive methods (COR = 2.1 [95% CI: 1.0 – 4.3]) which is in agreement with another study that reported respondents who had children were more likely than those with no children to report use of non-barrier methods alone (65% vs. 14%) (Yam et al., 2013a). This shows that alcohol could also be impacting negatively on negotiating for condom use or safer sex and consistent condom use.

Participants consuming drinks containing Alcohol were 2.2 times more likely to use non-barrier contraceptive methods (COR = 2.2[95% CI: 1.3 – 3.8]) than those not consuming any drinks containing alcohol this is also evident in another study (Lim et al., 2015). This implies that many of the alcohol users are not suitable in mind after taking the drinks containing alcohol and so are safer from pregnancies with the non-barrier method which the client would not have influence over other than the barrier method like the condom.

The other significant association obtained from the binary logistic regression was level of education. Those study participants with primary level education were 0.4 times less likely than those with no formal education female sex workers to use the non-barrier contraceptive methods (COR = 0.4[95% CI:0.2 – 0.8]) which is similar to a study conducted by Lim et al., (2015).

Finally, a multi variable logistic regression was carried out to see the independent predictors of uptake of non-barrier contraceptive methods. After adjusting for potential confounders having primary level (AOR=0.5[95%CI: 0.22-0.95]) and consuming drinks containing Alcohol (AOR=2.75[95%CI: 1.42-5.32]) were independent predictors of uptake non-barrier contraceptive methods which was in agreement with another study that reported primary level (AOR=0.95[95% (0.36–2.51)]) and regular use of alcohol (AOR = 3.19; 95%CI: 1.44–

7.06),(Lim et al., 2015). This further shows that consumption of drinks containing alcohol is associated with having unprotected sex hence the risk of HIV or STIs.

According to this study, FSWs using the barrier contraceptive methods, their education level, religion, alcohol consumption, ever been pregnant and number of children were associated with the uptake of barrier contraceptive methods. Considering this study, those FSWs with primary education level were 2.47 times more likely to use barrier contraceptive methods (COR = 2.47[95% CI: 1.28 – 4.77]) than those with no formal education. This is because those of primary level participants could have more negotiating power than those with no formal education especially when it comes to condom use. According to a study by Sarkar (2008), education level and gender influenced condom use consistency in the Latino women in Houston, which in turn influenced condom use at their last sexual encounters and with their regular sexual partner. This in turn implies that one is more empowered if highly educated to negotiate on condom use.

The religion of the participant was associated with uptake barrier contraceptive method. SDA were 0.2 times less likely to use barrier contraceptive methods (COR = 0.2[95% CI: 0.04 – 0.75]) than the Catholics. According to a study conducted by Sarkar,2008 religion influences condom use which is a barrier method, region was found to be associated with sexuality and religious behaviour gives a strong judgement on one's sexual behavior (Sarkar, 2008). Religion paints a picture of shamefulness when one uses it especially in societies with strong religious norms like the SDAs and Catholics.

According to this study FSWs consuming drinks containing Alcohol were 0.47 times less likely to use the barrier contraceptive methods (COR = 0.47 [95% CI: 0.27 – 0.81]) than those not consuming any drinks containing alcohol which is similar to findings from other studies that reported acute alcohol consumption significantly predicted participants perceived likelihood

that they would have sexual intercourse without a barrier contraceptive like a condom which implies that alcohol consumption directly impacts on condom use hence one ends up having unprotected sex (Abbey et al., 2005, Sarkar, 2008). Another study conducted by Mooney, et al., (2013) reported a high prevalence of occupational violence (59%) and alcohol abuse (51%). Occupational violence was more associated among alcohol users having unprotected sex with regular partner who refused to pay than those who did not (Mooney et al. 2013).

The number of children the participant had was associated with uptake barrier contraceptive method. FSWs with 1 child were 0.4 times less likely to use barrier contraceptive methods (COR = 0.4[95% CI: 0.16 – 0.91]) than those that had no children. Similarly, those study participants with more than 2 children were 0.5 times less likely to use barrier contraceptive methods (COR = 0.5 [95% CI: 0.22 – 0.94). Not using the barrier methods like condoms especially in this category of FSWs shows that at times they are uncomfortable with them and at times have little or no knowledge about how it's used (Sarkar, 2008).

The other significant association obtained from the binary logistic regression was ever been pregnant where by those that have even been pregnant were 0.3 times less likely than to use the barrier contraceptive methods (COR = 0.3[95% CI: 0.12 – 0.93). Finally, a multi variable logistic regression was carried out to see the independent predictors of uptake of barrier contraceptive methods. After adjusting for potential confounders having primary education level (AOR=2.2[95%C.I:1.05-4.63]), SDA religion (AOR=0.11[95%C.I:0.02-0.57]) and consuming drinks containing Alcohol (AOR = 0.37 [95% CI: 0.19 – 0.71]) were independent predictors of uptake barrier contraceptive methods. Another study differs from the current study since it reported that participants who had some secondary education were 0.3 times less likely than those with no more than a primary education to report consistent condom use (Yam et al., 2013a), that study implied that one with more education had less negotiating power.

This study implies that there is need for more sensitization on the need for girl education and dangers of consumption of drinks containing alcohol. Regardless of which contraceptive method one is using these are very important in determining the uptake. There is also the need to educate the FSWs and empower them with skills in negotiating power especially when using the condom contraception.

## **5.2 Conclusions**

The male condom was the most preferred which influenced the contraceptive prevalence to 99%. The predictors of contraceptive uptake according to this study for both barrier and non-barrier methods are education level, consuming drugs containing alcohol and religion for the barrier contraceptive methods. It was a very surprising finding to find out that primary level FSWs were using the contraceptives less than the illiterate FSWs.

Although a history of unintended pregnancy and high rates of abortions might promote contraceptive use, education level and consumption of drinks containing alcohol continue to affect the uptake of contraceptives among FSWs in Kampala Uganda. Sensitization and vocational skills could support contraceptive uptake among FSWs.

## **5.3 Recommendations**

Use of non-barrier methods for prevention pregnancy and infection among Female Sex Workers needs to be also fronted because due to the nature of their work also condom use at times is not consistent which makes them vulnerable with no control. Sex workers therefore need more knowledge on non-barrier contraceptives as well us proper use of the barrier methods especially condoms.

Educating their fellow FWSs within to the level of the peer educators of female sex workers may improve the contraceptive uptake for the non-barrier methods as this study results show that they work in groups so they have a few they trust.

Socio demographic factors undermining contraceptive uptake among Female Sex Workers include level of education and consuming drinks containing alcohol which calls for massive sensitization aimed at changing people's thinking about cultural beliefs and ways of economically empowering families so that they are able to keep their girl children in school.

Income generating activities through adult education and vocational trainings could improve on contraceptive uptake and reduce on sex work involvement. Since the main involvement in sex work was financial need (98%) those interested in skills development can be supported and facilitated to learn which in turn would lead self-worth and value for themselves. This coupled with continuous health education on effect of not using contraceptive methods.

Interventions targeting clients to the female sex workers are important as it is a common complaint among the female sex workers that clients reject condom use and also lack the knowledge of proper use of condoms.

Policy on free and specialized health services to FSWs needs to be put in place for easy accessibility and if possible in their routine business places like bars and lodges for example condom programming. This would encourage those in need who would otherwise have an excuse of them not being available, have access whenever they go to use such places.

#### **5.4 Study Limitations**

The study considered only quantitative methods in data collection which was not exhaustive on giving detailed information.

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## APPENDICES

### Appendix I: Information sheet and Consent form

#### PARTICIPANT INFORMATION FORM

**Study title; THE UPTAKE OF CONTRACEPTIVES AND ASSOCIATED FACTORS  
AMONG FEMALE SEX WORKERS IN KAMPALA -UGANDA.**

#### **Introduction**

Hello, my name is .....(*Interviewer*)..... I am conducting a small study on factors associated with uptake of contraceptives among female sex workers in Kampala. This study is only for academic purposes and is being undertaken by Ms. Doreen Anyumel a student of Uganda Martyrs University undertaking a Masters of Public Health. We are This study is to determine the uptake of Contraceptives and the commonly used methods, determine factors associated with choice of Contraceptive method and also explore the attitudes and beliefs on contraceptives among female sex workers in Kampala. We hope data collected will contribute to generating context specific interventions.

You are free to take or not to take part in this study, if you decide not to, it will not in any way affect you as a person. ALL information you provide us **WILL BE KEPT PRIVATE AND CONFIDENTIAL**. We will not share your information with your partner, local leaders or any other person. Only researchers involved in this study will have access to the information you provide us with. Your participation in this study will not harm you in any way. This exercise is expected to take about **20-30 Minutes**. Before we continue, do you have any questions? **Are you willing to give us feedback about these issues?**

No  Yes



Appendix II: Questionnaire

COMMERCIAL SEX WORKERS QUESTIONNAIRE

Name of Hotspot.....

[Hotspot]

<b>SECTION 1: DEMOGRAPHIC BACKGROUND</b>		
<b>QUESTIONS</b>	<b>RESPONSES</b>	<b>CODES</b>
<b>Type of hotspot:</b>	1. <input type="checkbox"/> Open lodge 2. <input type="checkbox"/> Open bar 3. <input type="checkbox"/> Ghetto/ on street 4. <input type="checkbox"/> Open bar with lodge	[TypeHotspot]
<b>Q1.01) You]r Name (Start with Surname) - Optional</b>	-----	[Q101NAME]
<b>Q1.02) What is your age?</b> <i>(Answer in years)</i>	-----	[AGE]
<b>Q1.03) Marital Status:</b>	1. <input type="checkbox"/> Single/ Never Married 2. <input type="checkbox"/> Married 3. <input type="checkbox"/> Cohabiting (living with partner) 4. <input type="checkbox"/> Widowed/Divorced/Separated	[MARSTAT]
<b>Q1.04) At what age did you first get married or lived with a partner as if married?</b>	: _____	[AGEMAR]
<b>Q1.05) Highest Education Level:</b>	1. <input type="checkbox"/> No formal education 2. <input type="checkbox"/> Primary 3. <input type="checkbox"/> O Level (S1-S4) 4. <input type="checkbox"/> A level (S5-S6) 5. <input type="checkbox"/> Higher (university/Tertiary) 6. <input type="checkbox"/> Others specify _____	[EDUC]
<b>Q1.06) What is your religion?</b>	1. <input type="checkbox"/> Catholic 2. <input type="checkbox"/> Anglican 3. <input type="checkbox"/> Muslim 4. <input type="checkbox"/> Pentecostal/Born Again 5. <input type="checkbox"/> Seventh day Adventist 5. <input type="checkbox"/> Others: _____	[RELIG]
<b>Q1.07) Where do you reside?</b>	.....	[RESIDE]

Q1.08) How often do you come here(hotspot) in a week?	.....	[FREQHOTSPOT]
Q1.09) Which days are you here (current hotspot)?	..... ..... .....	[DAYhotspot]
Q1.10) What means of transport do you use to this place?	1. <input type="checkbox"/> Walking 2. <input type="checkbox"/> Boda Boda 3. <input type="checkbox"/> Taxi 4. <input type="checkbox"/> Special Hire 5. <input type="checkbox"/> Others;.....	[N1Walking] [N2BodaBoda] [N3Taxi] [N4Specialhire] [N5Others]
Q1.11) Is this the only spot that you usually come to?	1. <input type="checkbox"/> No 2. <input type="checkbox"/> Yes	[Onlyspot] If Yes, Skip to Q1.15
Q1.12) If No, Where else do you go to?	.....	[Otherspot]
Q1.13) Which days are you at this other hotspot?	..... ..... .....	[Dayother]
Q1.14) What makes you choose a particular location?	..... ..... .....	[Choice]
Q1.15) How long have you been working as a FSW? (Answer in months)	.....	[DURATION]
Q1.16) Where do you find customers? Check all that apply	1. <input type="checkbox"/> In their homes 2. <input type="checkbox"/> At your work place 3. <input type="checkbox"/> Others (Specify)..... 4. <input type="checkbox"/> Several of the above.....	[N1home] [N2workplace] [N3Others] [N4severalofth eabove]
Q1.17) What is the occupation for most of your customers? Check all that apply	1. <input type="checkbox"/> Truck/Tax drivers 2. <input type="checkbox"/> Boda Boda Riders 3. <input type="checkbox"/> Civil servants	[N1TruckTaxd river] [N2Bodabodar ider]

	<p>4. <input type="checkbox"/> Students</p> <p>5. <input type="checkbox"/> Businessmen</p> <p>6. <input type="checkbox"/> Others (Specify).....</p> <p>7. <input type="checkbox"/> Several of the above.....</p>	<p>[N3Civilservants]</p> <p>[N4Student]</p> <p>[N5Businessmen]</p> <p>[N6Others]</p> <p>[N7Severaloftheabove]</p>
Q1.18) Do you have children?	1. <input type="checkbox"/> No    2. <input type="checkbox"/> Yes	[Children]
Q1.19) What could be your major reason for involvement in commercial sex work?	<p>1. <input type="checkbox"/> Fun</p> <p>2. <input type="checkbox"/> Financial need</p> <p>3. Other.....</p> <p>4. <input type="checkbox"/> Several of the above.....</p>	[ReasonFSW]
Q1.20) Do you have any other source of income besides the income from sex work?	1. <input type="checkbox"/> No    2. <input type="checkbox"/> Yes	[OTHERINCOME]
Q1.21) What is your average monthly income?(Ugandan shillings)	.....	[AVINCOME]
Q1.22) How many clients do you get on typical day?	.....	[clientsN0]
Q1.23) How much do you charge on average for your services? <i>Note that combined applies when one does not want to disclose per category</i>	<p>Short:.....</p> <p>Long:.....</p> <p>Combined:.....</p>	<p>[chargeshort]</p> <p>[chargeLong]</p> <p>[chargeCombined]</p>
Q1.24) What challenges do you face with your customers/this business?	<p>.....</p> <p>.....</p> <p>.....</p>	[Challenges]



<p><b>Q1.32) If yes which drugs of addiction do they use?</b></p>	<p><b>1. Marihuana</b>  <b>2.Sniffing petrol</b>  <b>3.Cocaine</b>  <b>4. Heroine</b>  <b>5.Khat</b>  <b>6. Tobacco</b>  <b>7. Others, specify.....</b>  <b>8. Several of the above.....</b></p>	<p><b>[DRUGTYPE1]</b></p>
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**SECTION 2: SEXUAL BEHAVIOR AND PREGNACY HISTORY**

<p><b>Q2.01) Do you usually use a condom with your customers?</b></p>	<p><b>1. <input type="checkbox"/> No    2. <input type="checkbox"/> Yes</b></p>	<p><b>[Condomuse]</b> <b>If yes skip to Q 2.05</b></p>
<p><b>Q2.02) If no, What was the reason behind you're not using the condom?</b></p>	<p><b>1. <input type="checkbox"/> Not available</b>  <b>2. <input type="checkbox"/> Build Trust</b>  <b>3. <input type="checkbox"/> Partner initiated</b>  <b>4. <input type="checkbox"/> I preferred sex without using a condom</b>  <b>5. <input type="checkbox"/> I didn't know how to use a condom</b>  <b>6. <input type="checkbox"/> I forgot</b>  <b>7. <input type="checkbox"/> I wanted to get pregnant</b>  <b>8. <input type="checkbox"/> Others Specify.....</b>  <b>9. <input type="checkbox"/> several of the above.....</b></p>	<p><b>[N10available]</b>  <b>[N2BuildTrust]</b>  <b>[N3Partnerinitiated]</b>  <b>[N4Nocondom]</b>  <b>[N5dontknowcondomuse]</b>  <b>[N6Iforgot]</b>  <b>[N7getpregnant]</b>  <b>[N8Others]</b>  <b>[N9Severaloftheabove]</b></p>
<p><b>Q2.03) Have you ever been pregnant?</b></p>	<p><b>1. <input type="checkbox"/> No    2. <input type="checkbox"/> Yes</b></p>	<p><b>[EVERPREG]</b></p>
<p><b>Q2.04) What was your age at first pregnancy?</b></p>	<p>.....</p>	<p><b>[AGEPREG]</b></p>
<p><b>Q2.05) How many Live babies have you ever had?</b></p>	<p>.....</p>	<p><b>[Livebaby]</b></p>

**SECTION 3: CONTRACEPTIVE UPTAKE**

Q3.01) Are you using any method to avoid pregnancy?	1. <input type="checkbox"/> No    2. <input type="checkbox"/> Yes	[Contraceptive uptake] If No, skip to Q 3.15.
Which method are you currently using to avoid Pregnancy? Tick all that apply		
Q3.02) Male condoms	1. <input type="checkbox"/> No    2. <input type="checkbox"/> Yes	[Q302Male condoms]
Q3.03) Female condoms	1. <input type="checkbox"/> No    2. <input type="checkbox"/> Yes	[Q303Female Condoms]
Q3.04) Withdrawal	1. <input type="checkbox"/> No    2. <input type="checkbox"/> Yes	[Q304Withdrawal]
Q3.05) Oral Pills	1. <input type="checkbox"/> No    2. <input type="checkbox"/> Yes	[Q305Oral pills]
Q3.06) Sterilization	1. <input type="checkbox"/> No    2. <input type="checkbox"/> Yes	[Q306Sterilization]
Q3.07) Diaphragm	1. <input type="checkbox"/> No    2. <input type="checkbox"/> Yes	[Q307Diaphragm]
Q3.08) IUD	1. <input type="checkbox"/> No    2. <input type="checkbox"/> Yes	[Q308IUD]
Q3.09) Hormonal Implant	1. <input type="checkbox"/> No    2. <input type="checkbox"/> Yes	[Q309Hormonal implant]
Q3.10) Depo-Provera	1. <input type="checkbox"/> No    2. <input type="checkbox"/> Yes	[Q310Depo Provera]
Q3.11) Others	1. <input type="checkbox"/> No    2. <input type="checkbox"/> Yes Specify.....	[Q311Others]
Q3.12) If yes, what is the main reason for using the above mentioned method to avoid pregnancy?	1. <input type="checkbox"/> I do not want to get pregnant 2. <input type="checkbox"/> Not in Menopausal 3. <input type="checkbox"/> Partner support 4. <input type="checkbox"/> The service is affordable 5. <input type="checkbox"/> Choice of method suits my body 6. <input type="checkbox"/> Providers attitude is receptive	[N1N0pregnancy] [N2N0tMenopausal] [N3Partnersupport] [N4serviceaffordable]

	<p>7. <input type="checkbox"/> cultural norms</p> <p>8. <input type="checkbox"/> Religion</p> <p>9. <input type="checkbox"/> Waiting time is short</p> <p>10. <input type="checkbox"/> Transport to the service Centre</p> <p>11. <input type="checkbox"/> Others Specify.....</p> <p>12. <input type="checkbox"/> Several of the above.....</p>	<p>[N5methodsuitsbody]</p> <p>[N6Providersattitude]</p> <p>[N7CulturalOrms]</p> <p>[N8Religion]</p> <p>[N9Waitingtimeisshort]</p> <p>[N10Transport]</p> <p>[N11Others]</p> <p>[N12Severaloftheabove]</p>
<p><b>Q3.13) What is your most preferred Method?</b></p>	<p>.....</p>	<p>[PreferredMethod]</p>
<p><b>Q3.14) Where do you normally get these contraceptives?</b></p>	<p>1. <input type="checkbox"/> Public Health facility</p> <p>2. <input type="checkbox"/> Private health facility</p> <p>3. <input type="checkbox"/> Drug shops</p> <p>4. Non-government organizations</p> <p>5. <input type="checkbox"/> OthersSpecify.....</p> <p>6. <input type="checkbox"/> Several of the above.....</p>	<p>[N1PHC]</p> <p>[N2PrHF]</p> <p>[N3Drugshops]</p> <p>[N4NGOs]</p> <p>[N5Otherspecificy]</p> <p>[N6Severaloftheabove]</p>

<p><b>Q3.15) What are your barriers towards contraceptive uptake?</b>  <b>[Tick all appropriate]</b></p>	<ol style="list-style-type: none"> <li>1. <input type="checkbox"/> perceived side effects,</li> <li>2. <input type="checkbox"/> Stigma</li> <li>3. <input type="checkbox"/> Cultural norms</li> <li>4. <input type="checkbox"/> Religion</li> <li>5. <input type="checkbox"/> Police raids</li> <li>6. <input type="checkbox"/> Absence of specialized clinics</li> <li>7. <input type="checkbox"/> Absence of one stop Centre</li> <li>8. Provider's attitude is not good</li> <li>9. Partner not approving</li> <li>10. Others Specify.....</li> <li>11. <input type="checkbox"/> Several of the above.....</li> </ol>	<p>[N1Perceivedsideeffects]  [N2Stigma]  [N3Culturalnorms]  [N4Religion]  [N5Policeraids]  [N6Absenceofspecializedclinics]  [N7Absenceofonestopcentre]  [N8Providersattitudeisnotgood]  [N9Partnernotapproving]  [N10OthersSpecify]  [N11Severaloftheabove]</p>
<p><b>Q3.16) What benefits of contraceptives do you know of?</b></p>	<p>.....  .....  .....  .....  .....  .....</p>	<p>[Q316Benefitsofcontraceptives]</p>



<p><b>Q3.17) What interventions do you need from the government concerning this business of yours?</b></p>	<p>.....  .....  .....  .....  .....  .....</p>	<p><b>[Q317 Govern ment Interventi ons]</b></p>
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*You are done with this interview, thanks for telling me about these Issues.*

*For any inquiries, please feel free to contact me on 0775310323 or anyumeldoreen@yahoo.com*

## Appendix III: Introductory Letters

September 3, 2017

To Whom It May Concern,  
Makindye Division, Kampala City Council Authority

Dear Sir/Madam,

**RE: INTRODUCING DOREEN ANYUMEL**

This is to introduce to you **DOREEN ANYUMEL**, a student of **Uganda Martyrs University**. She is pursuing a course leading to the award of a Master of Public Health, specializing in Population and Reproductive Health.

Anyumel is undertaking a quantitative study for her academic dissertation. The research topic is: **Factors Associated with the Uptake of Contraceptives among Female Sex Workers in Kampala -Uganda.**

The topic and protocol have been approved by the relevant University authorities. Any assistance rendered to her in this respect will be much appreciated by the University.

Yours Sincerely,

*Olive Buhule*

**Dr. Olive D. Buhule, PhD**  
**The Supervisor,**  
**Lecturer**  
**Faculty of Health Sciences**

September 3, 2017

To Whom It May Concern,  
Rubaga Division, Kampala City Council Authority

Dear Sir/Madam,

**RE: INTRODUCING DOREEN ANYUMEL**

This is to introduce to you **DOREEN ANYUMEL**, a student of **Uganda Martyrs University**. She is pursuing a course leading to the award of a Master of Public Health, specializing in Population and Reproductive Health.

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**Dr. Olive D. Buhule, PhD**  
**The Supervisor,**  
**Lecturer**  
**Faculty of Health Sciences**