KNOWLEDGE, EXPERIENCE AND INTENTION TO USE FEMALE CONDOMS BY FEMALE SEX WORKERS IN IBADAN METROPOLIS

BY

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DEDICATION

In the cozy recess of her sanguine womb the first learning took place, there I was taught the theory of survival and other rhythms of life. I dedicate this to Mrs. Okunola for the purest of love and support.

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To God alone be all the glory for the opportunity to embark on this program. The grace was there to see me through to the end. "I saw the Lord always before me, for he is at my right hand that I may not be shaken; therefore my heart was glad, and my tongue rejoiced; my flesh also will dwell in hope. For the Lord will not abandon my soul to Hades, or let your Holy One see corruption. You have made known the paths of life; you make me full of gladness with your presence"Act 2; 25-28

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ABSTRACT

Female condoms are of enormous importance to the fight against Sexually Transmitted Infections (STIs) because they are the only existing, effective female-controlled preventive tool against Human Immuno-deficiency Virus (HIV) and other STIs. Nigeria has the second highest burden of HIV in the world. While FSWs constitute less than 1% of the Nigerian population yet nationally, FSWs account for about 20% of new HIV infections. Effective female condom interventions can increase the proportion of protected sex acts and decrease STI prevalence. However, their use has remained frustratingly and tragically low, despite growing demand from FSWs themselves. The study investigated the Knowledge, experience, and intention to use female condom by female sex workers in Ibadan metropolis.

The study adopted the descriptive research design and a total of 293 from popular hotspot/Brothel facilities within Ibadan metropolis were recruited for the research. The total population was adopted. The instruments for data collection were In-depth interview (IDI) guide and interviewer administered questionnaire. Each of the scale has sub-scales duly scrutinized by the supervisor in charge before its administration. Data collected were analyzed using a descriptive statistics of percentages and frequencies, as well as chi square (χ^2) test were used for the analysis, while the qualitative data were analyzed using thematic method.

Respondents mean age was 27.8 ± 4.9 years, participants comprising two third of the population are aware of female condom. 258 (88.1%) out of the population of 293 confirmed positive result of using FC. The proportion of FSWs who has ever used the female condom was discovered to be out of 51.5% of FSWs who responded 27.1% has used female condom, while 24.4% has never used female condom presumably have heard of it.106 participants are currently using FC which is the aggregate proportion of FSWs who uses the female condom in their daily activities in the metropolis. The study revealed that the use of female condom by most of the respondents is for clients that refuse the male condom and during their menstrual cycle. Female condom use was cross tabulated with the socio-demographic variables, and FC use with LGAs was statistically significant (<0.05)

The study recommends that a combination of radio/television, Pharmacy, NGO seminar and peer-educator could used to improve the knowledge base of FSWs of the studied areas, it was recorded that good numbers of FSWs are aware but a low knowledge about the use of FC. With reference to this study, there is a need to increase training of Female Condom use to FSWs which will increase the numbers of users and solve the common plights they faced in the course of their daily routines.

Keywords: Knowledge, Experience, Intention to use, Female Condom, Female Sex Workers, Ibadan metropolis.

Word count: 499 words

CERTIFICATION

I certify that this research work was carried out by **Okunola, Isaac Olumuyiwa** of the Department of Health Promotion and Education, Faculty of Public Health, College of Medicine, University of Ibadan, Ibadan.

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GLOSSARY OF ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
ARV	Anti-retroviral
ARFH	Association for Reproductive and Family Health
BBFSW	Brothel-Based-Female Sex Worker(s)
BSS	Behavioural Surveillance Survey
DSA	Daily Service Allowance
FCT	Federal Capital Territory
FHI	Family Health International
FMoH	Federal Ministry of Health
FSW	Female Sex Worker(s)
HCT	HIV Counseling and Testing
HIV	Human Immunodeficiency Virus
IBB SS	Integrated Biological and Behavioural Surveillance Survey
IBNW	Ibadan North West
IDU	Injecting Drug User(s)
IEC	Information, Education and Communication
LGA	Local Government Area
MARPs	Most At Risk Population
MPPI	Minimum Prevention Package Intervention
MSM	Men who have Sex with Men
NACA	National Agency for the Control of AIDS
NARHS	National HIV and AIDS and Reproductive Health Survey
NASCP	National AIDS/STI Control Program
NBBFSW	Non-Brothel-Based female Sex Worker(s)
NDHS	Nigeria Demographic Health Survey
NGO	Non-Governmental Organization
NIMR	Nigerian Institute for Medical Research
NPC	National Population Commission
PLWHA	People living with HIV and AIDS
RAs	Research Assistants

SACA	State Action Committee on AIDS
SFH	Society for Family Health
SHIPS	Strengthening HIV Prevention Services
STI	Sexually Transmitted Infection
TWs	Transport Worker(s)
UNAIDS	Joint United Nations Program on HIV and AIDS
USAID	United States Agency for International Development
USG	United States Government
WHO	World Health Organization

CHAPTER ONE
INTRODUCTION

1.1. Background of the Study

The female condom is made of thin, strong plastic called polyurethane. Female condom has two rings on each end placed inside the vagina to fit over the cervix, covering it with the protective rubber material, while the other ring which is open, rests outside of the vagina and covers the vulva. It is a barrier device used for birth control and prevention of sexually transmitted infection including Human immune-deficiency virus (HIV).

According to PATH (2006), the female condom is about 75% - 82% effective with typical use. When used correctly all of the time, female condoms are 95% effective. They fail for the same reason as male condoms:

- A rip or tear in a condom (can be made before or during intercourse)
- The condom is not placed before the penis touches the vagina
- Failure to use a condom each time you have intercourse
- Rarely, failure due to manufacturing defects
- Spilling of semen from a condom while removing it

According to Eluwa (2012), female condom is viewed as a tool for women empowerment for prevention of STIs including HIV and as a contraceptive method. It is relatively an innovation of public health importance that is intended to serve the dual role of protecting against unwanted pregnancy and sexually transmitted infections (STIs) including HIV infection and re-infection. Heterosexual transmission accounts for up to 95 percent of HIV infections. Women account for close to 60 percent of all adults living with HIV.

The national HIV prevalence among the general population is 4.1%. Generalized prevalence among 15-49 year olds is about 3.6 percent, but significantly higher rates exist among most-at-risk populations (MARPs), including commercial sex workers (30.2-37.4 percent), injecting drug users (5.6 percent), and men who have sex with men (13.5 percent) (NPC 2010).

With a national HIV prevalence of 4.1% and nearly 3.5 million people living with HIV, Nigeria has the second highest burden of HIV in the world. The 2007 Integrated Bio-Behavioral Surveillance Survey (IBBSS, 2007) found that HIV prevalence among female sex workers (FSWs) was 30%.

1.2 Statement of Problem

FSWs constitute less than 1% of the Nigerian population yet nationally account for about 20% of new HIV infections (Eluwa 2012). A study by Ankomah(2011), shows a steadily high prevalence of HIV among FSWs who constitute an important reservoir of HIV infection for continuous transmission to the general population

HIV prevalence among this high risk group has remained high and risen from 17.5% in 1991 through 22.5% in 1993 to37.4% in 2007 compared to 4.1% among pregnant women (Federal Ministry of Health, 2010). However, the HIV prevalence in the group declined to 27.4% in 2010(National Agency for the Control of AIDS, 2012). Oladembe et al. (2010) reported that sex workers and their clients account for about 18.0% of all new infections in some states such as Oyo state in Nigeria.

Recent research by the World Health Organization has found moderate to high levels of initial trial and acceptance of the female condom among women (WHO1997; Berquó et al. 1999; Slaviero et al. 2000; Kerrigan et al. 2000). However, information is lacking about its continued use, particular among women at high risk of HIV and other STIs.

A review by the World Health organization (WHO) indicated that the degree of acceptability varies widely from 41 percent to 95 percent of study participants (WHO 1997). Users reported repeatedly that it is more durable than the male condom, provides more control for women, is less disruptive to sexual intimacy, permits more time for withdrawal after ejaculation, and is more comfortable for men. On the other hand, women complain that the device is too long - its outer ring hangs outside of the body. Some report that the rings are uncomfortable and that the device is unattractive. Men and women have complained about noise during use and excessive lubrication.

Sub-Saharan Africa recorded 71% of all new infections in 2011 in the world. Female sex workers (FSWs) are one of the most important groups propelling the epidemic in most countries

in Africa. Indeed, even when prevalence rates are generally quite low in a country, they can be very high in this group. HIV prevalence among sex workers is 13.5 times higher than among other women (UNAID 2011).

Studies have shown that sexual risk behavior such as multiple sexual partners and unsafe sexual practices were common among men, married men and commercial drivers (Omokhodion, 2007).The study was conducted on clients of female sex workers which includes married men between ages 30 and 59 years who patronize club houses, local joints, beer parloure and hotspots and other social hotspots and hang outs. The study reveals that large percentage of married men who patronizes FSWs has sex without the use of condom. Condoms have therefore been promoted as a major public health strategy to combat the rising rates of STIs including HIV/AIDS. However, the widespread knowledge of the protection that condoms provide does not determine use. Some studies in Nigeria (NPC 2010) show that despite this knowledge, Female condom use is relatively low among the general population and among sexually active adolescents who patronize female sex worker.

Female condom works, it is effective in preventing pregnancy and STIs, including HIV. When it is offered with good counseling and support, female condom availability results in significantly safer sex. More choice equals more protection. This survey reported the experience, knowledge and identified factors responsible for the usage of female condom by female sex workers in Ibadan metropolis of Oyo State.

During the 1st implementation period of Global Fund project for HIV/AIDS grants under three Principal Recipients (PRs): National Agency for Control of AIDS (NACA), Society for Family Health (SFH) and Association for Reproductive and Family Health (ARFH),were provided with fund to reach 22,990 Most At Risk Population (MARPs) which include female sex workers and injecting drug users, 99%of targeted 23,172 were reached with HIV/AIDS prevention programs using the Minimum Package of Prevention Interventions (MPPI). MPPI is the intervention strategy adopted by organizations on Global Fund project; which includes health education and condom use promotion.

The 2010 Integrated Biological and Behavioural Surveillance Survey (IBBSS) indicated that consistent condom use with boyfriends/regular partner(s) was significantly low with 21% of Brothel-Based-Female Sex Worker(s) (BBFSW) and 2% among Non-Brothel-Based female Sex

Worker(s) (NBBFSW) (The Global Fund PROGRAM SCORECARD). And this has result into increase in HIV/AIDS and other sexually transmitted infection among FSWs and their clients.

Female condom was introduced into Oyo State by Association for Reproductive and Family Health (ARFH) a Non-Governmental Organization in Oyo State in 1999. Other organizations that have distributed female condoms in the state include the family planning Coordinating Unit of the State Ministry of Health, the Planned Parenthood Federation of Nigeria and Society for Family Health (SFH), which incidentally are located in Ibadan North and North West Local Government Area of the state where this research will be carried out.

1.3. Justification/Rationale for the Study

Since the introduction of female condom and Strengthening HIV Prevention Services (SHIPS) for Most at Risk Population (MARPs) project by Global Fund, ARFH, SMOH, SFH and other Civil society organizations in Oyo State, no survey has been done to determine the willingness, experience, and perception of female sex workers towards use of female condom, which is women initiated and controlled method of STIs prevention.

This study intends to assess the knowledge, experience and intention of female sex workers towards the use of female condom for HIV and other STIs prevention in Ibadan metropolis. This study will provide important baseline information about the experience, and knowledge of female sex workers towards use of female condom as a means of contraception and STIs/HIV/AIDS prevention in Oyo state which till date has not been provided in previous studies.

The need for effective alternatives to the male condom is critical to protect female sex workers from STIs and unintended pregnancy, therefore the research intends to identify gaps and factors responsible for poor use of female condom, which will equip stakeholders and program officers in designing intervention for FSWs in Oyo state.

1.4. Research Questions

The findings from the study provided answers to the following:

1. How knowledgeable are FSWs in Ibadan metropolis about the female condom?
2. What proportion of FSWs has ever used the female condom?
3. What proportion of FSWs in Ibadan metropolis currently uses the female condom?
4. What are the factors that affect the usage of female condom among the Female Sex workers?
5. Are the FSWs in Ibadan metropolis who are currently not using the female condom intending to adopt that practice?

1.5. Objectives of the Study

The general objective of this study is to assess the knowledge, experience, and intention to use female condom by female sex workers in popular hotspot/Brothel facilities within Ibadan metropolis.

The specific objectives that guided the study were as follows:

1. To assess knowledge of respondents on usage of the female condom
2. To determine the perception of FSWs using female condom
3. To identify the proportion of FSWs in the study population who have used the female condom.
4. To report the experience of users of female condom
5. To determine factors that promotes or hinders consistency of female condom usage with clients and regular partners.

CHAPTER TWO

LITERATURE REVIEW

2.1 Nature and extent of the burden of HIV/AIDS

The HIV/AIDS pandemic has infected 40 million people in the world and about 95% of them are in developing countries. The pandemic has already killed 28.5 million people since its emergence and 14 000 people become infected every day. According to UNDP (2002), more than half of those newly infected with HIV/AIDS today are between the ages of 15 and 24. More than 11.8 million young people in this age bracket are living with HIV/AIDS and out of this number, 7.3 million are young women and 4.5 million are young men (UNDP, 2002). In 2001 alone, 5 million people became infected with HIV, out of which 3 million died.

According to the World Health Organization (WHO), there were approximately 35.3 [32.2–38.8] million people living with HIV in 2012. Since the beginning of the epidemic, almost 75 million people have been infected with the HIV virus and about 36 million people have died of HIV. Globally, 35.3 million [32.2–38.8 million] people were living with HIV at the end of 2012. An estimated 0.8% of adults aged 15–49 years worldwide are living with HIV, although the burden of the epidemic continues to vary considerably between countries and regions. Sub-Saharan Africa remains most severely affected, with nearly 1 in every 20 adults living with HIV and accounting for 71% of the people living with HIV worldwide.

2.2. HIV and AIDS in sub-Sahara Africa

Sub-Saharan Africa has the most serious HIV and AIDS epidemic in the world. In 2012, roughly 25 million people were living with HIV accounting for nearly 70 percent of the global total. In the same year, there were an estimated 1.6 million new HIV infections and 1.2 million AIDS-related deaths. As a result, the epidemic has had widespread social and economic consequences, not only in the health sector but also in education, industry and the wider economy. At the height of the HIV epidemic in sub-Saharan Africa, life expectancy was stagnating, even falling in some countries. Despite the rapid scaling up of antiretroviral treatment in recent years, the worst affected countries still have particularly low life expectancies. UNAIDS (2013) ' Global Report 2013'

Table 2
Global HIV Summary for 2011

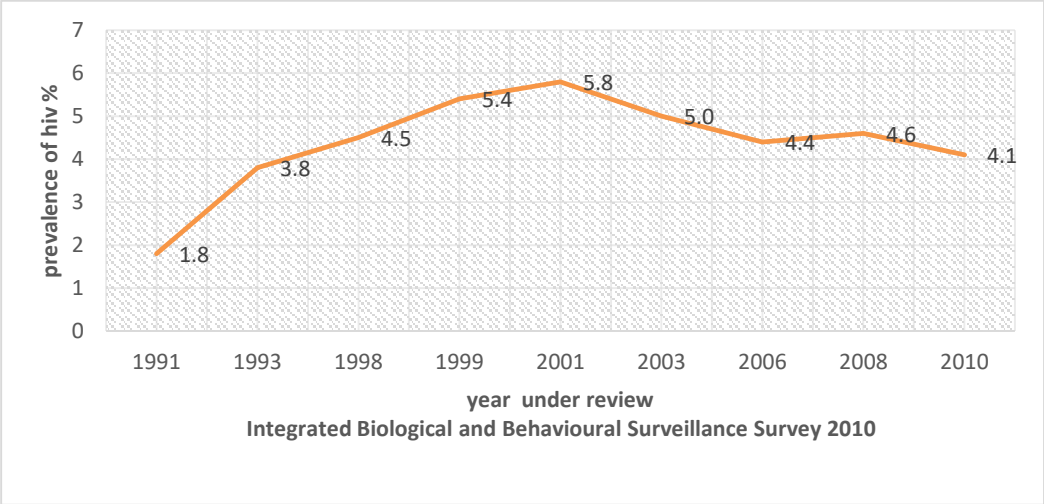
Global Summary of the AIDS Epidemic, 2011	
Number of People living with HIV in 2011	
Total	34.0 million [31.4 million – 35.9 million]
Adults	30.7 million [28.2 million – 32.3 million]
Women	16.7 million [15.4 million – 17.6 million]
Children (ages 0-14)	3.3 million [3.1 million – 3.8 million]
People newly infected with HIV in 2011	
Total	2.5 million [2.2 million – 2.8 million]
Adults	2.2 million [1.9 million – 2.4 million]
Children (ages 0-14)	330,000 [280,000 – 390,000]
AIDS deaths in 2011	
Total	1.7 million [1.5 million – 1.9 million]
Adults	1.5 million [1.3 million – 1.7 million]
Children (ages 0-14)	230,000 [200,000 – 270,000]

Source; UNAID 2013

In the most affected parts of sub-Saharan Africa, the HIV epidemic has had a devastating impact on households. When the income earners fall too ill to work, they have to be cared for by other household members or extended family. Children can also be removed from school to provide care or to put to work to generate income. In the worst cases, households simply dissolve. (UNAID 2013)

2.3 HIV/AIDS in Nigeria

Figure 1.1



Trends in HIV prevalence in Nigeria; IBBSS 2010

Nigeria in 2012 has HIV prevalence rate among adults ages 15–49 of 3.1%. The country also has the second-largest number of people living with HIV. The HIV epidemic in Nigeria is complex and varies widely by region. In some states, the epidemic is more concentrated and driven by high-risk behaviors, while other states have more generalized epidemics that are sustained primarily by multiple sexual partnerships in the general population, AkwaIbom, Benue, Lagos and Oyo state are targeted states with high impact of HIV/AIDS (NACA 2013).

According to Ugboga and Ajuwon (2004) in a study on Knowledge of AIDS and HIV risk-related sexual behavior among Nigerian naval personnel, young military persons are typically posted to locations away from their homes and families for extended periods of time. Freed from the strictures of their normal social environments many engage in risk behaviors as a means of relieving the tension of loneliness, including use of drugs and unprotected sex with FSWs.

Furthermore, since danger and risk-taking are part of the job of the military, they need and will seek release, including sexual release from the tension and stress of their work.

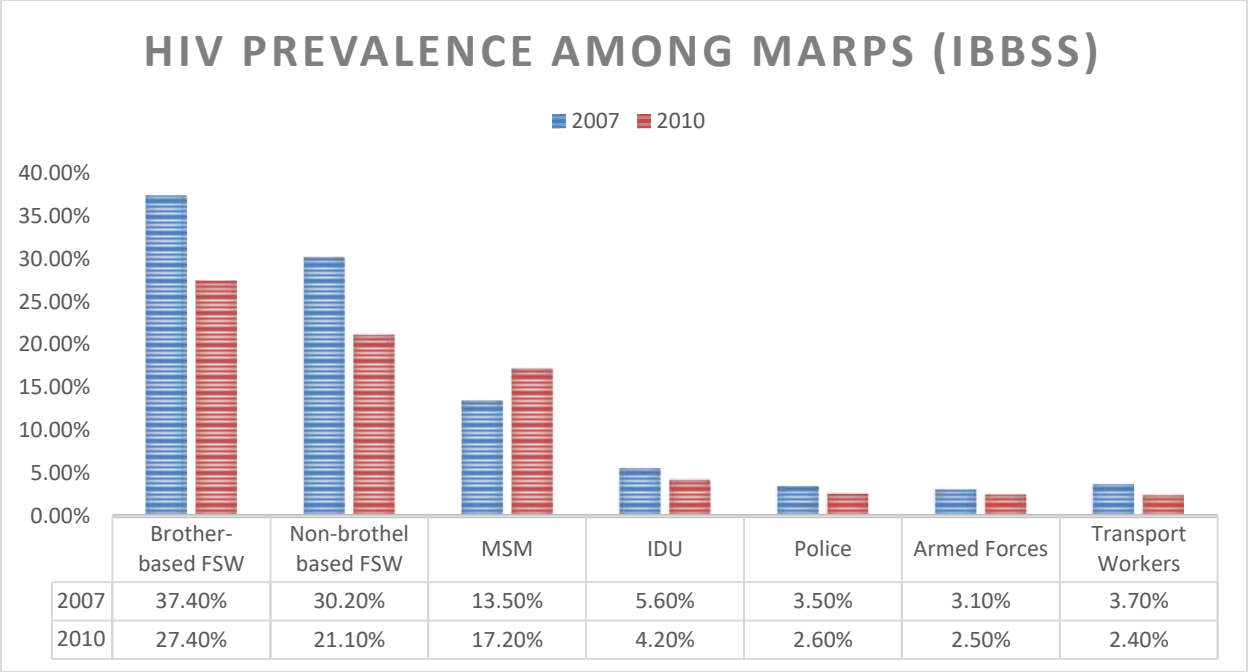
Another significant fact is the fact that the military forces are disproportionately composed of young to middle-aged males in peak physical condition, who are separated, frequently from their

wives or families and home communities for long periods. Besides rape, soldiers often have access to sex workers, more so as they are likely to have more ready cash than many other men in regions where they are deployed. Ndongko and Oladepo (2003)

The military and other uniformed forces such as the police and gendarmerie have a particularly high concentration of HIV/AIDS infection. The high susceptibility of the military (and the allied forces) has been widely documented and is due to a number of factors. According to UNAIDS (1998), the single most important factor leading to high rate of HIV in the military is the practice of posting personnel far from their accustomed community and families for varying periods of time. This practice has the effect of freeing them from traditional social controls, removes them from contact with spouses and regular sexual partners and thereby encourages the growth of sex industries in the areas where they are posted.

Youth and young adults in Nigeria are particularly vulnerable to HIV, with young women at higher risk than young men. There are many risk factors that contribute to the spread of HIV, including prostitution, high-risk practices among itinerant workers, high prevalence of sexually transmitted infections (STI), clandestine high-risk heterosexual and homosexual practices, international trafficking of women, and irregular blood screening (Eluwa 2012).

Figure 1.2



	Brother-based FSW	Non-brothel based FSW	MSM	IDU	Police	Armed Forces	Transport Workers
2007	37.40%	30.20%	13.50%	5.60%	3.50%	3.10%	3.70%
2010	27.40%	21.10%	17.20%	4.20%	2.60%	2.50%	2.40%

HIV Prevalence among MARPs; IBBSS 2010

2.4 HIV/AIDS in Oyo State

HIV prevalence in Oyo state is 3.9% according to the 2013 National Demographic Health Survey. (NDHS 2013) Oyo State Agency for the Control of AIDS (OYSACA) has received financing from the World Bank for the implementation of the HIV/AIDS programme Development project (HPDP 2). The overall goal of the HIV Programme Development Project is to reduce the risk of HIV infections by scaling up prevention interventions and to increase access to and utilization of HIV counseling, testing, care and support services in Oyo State.

2.5 HIV and Female Sex Workers

Estimates of the global numbers of sex workers and their global HIV burden have been challenged by limitations in surveillance, research methods, and available data.

Beyrer et al (2014) did a systematic review and meta-analysis of HIV prevalence data in female sex workers in countries of low and middle income from January, 2007 to June, 2011. From his study, data were available from 50 countries, and included HIV data for 99 878 adult women. Overall HIV prevalence was estimated at 11·8% (95% CI 11·6—12·0), with the highest burdens in sub-Saharan Africa (36·9% [36·2—37·5]) and Eastern Europe (10·9% [9·8—12·0]). A

comparison of these burdens with women of reproductive age in the same populations yielded a pooled global odds ratio (OR) of 13·5 (10·0—18·1).

Human immunodeficiency virus (HIV) is the name of the virus that causes acquired immunodeficiency syndrome (AIDS). The virus interferes with the immune system and leaves the body vulnerable to a variety of life-threatening infections. HIV has been found in spinal fluid, blood, semen, vaginal fluid and breast milk. 2010 UNAIDS estimates that in Nigeria, there are about 3.1 million people living with HIV and AIDS and 1.5 million require ARV drugs. Blood transfusions account for up to 10% of new HIV infections in Nigeria. The other main transmission route is mother to child transmission.About 80% of HIV infections in Nigeria are sexually transmitted. HIV & AIDS awareness is high (93%) BUT correct knowledge about routes of transmission and two methods of prevention has remained low (53%) and condom use has also remained low (16%) (NPC 2010).

In an unprecedented coordination effort, NACA and partners (World Bank, USG/PEPFAR and Global Fund) are co-funding an ongoing national MARPs size estimation and venue mapping survey. Initial mapping, based on ongoing interventions for risk populations and data collected through the different surveys, has been conducted by states, with the support of NACA and partners.

Based on identification of hotspots and size estimations, priority local government authorities (LGAs) are being defined to introduce combined intervention packages, consisting of behavioral, structural and biomedical interventions. Society for Family Health (SFH) with a total budget of US$ 14 million for MARPs interventions under Phase 2, uses various BCC approaches focused on FSW, MSM and IDUs to address the behavioral component, provides 33 million condoms as well as lubricants to FSW and MSM, and conducts mobile HCT, while supporting referral services to address the testing and treatment component in the second implementation period.

Furthermore, it is expedient to study the knowledge of the female condom, experience, and intension of female sex workers towards its use as an important step towards selling the idea of a female initiated method of protection and an innovation to strengthening HIV prevention programme for most at risk persons. Female Condoms cannot be tampered with (punctured) by men without the knowledge of women as is the case with Male Condoms, Women are

empowered to use Condoms since some men are unwilling, Option of prior insertion implies Female Condoms are not interruptive, Female Condom can be inserted without man's knowledge, Female Condom is as pleasurable as plain sex, Female Condoms are durable, Female Condoms are effective for HIV prevention and family planning and Female Condoms do not call for immediate withdraw.

On the other hand, the following factors would compel them not to use the Female Condoms; The process of putting on the Female Condom is too long, Disapproval/refusal from male partners, Doubts about its effectiveness because they are new, Shifting of responsibility of having condoms, Other women can wash and reuse, Shyness to use condoms and Questions whether prior wearing of the Female Condom could disturb urinating.

According to George Eluwa; (2012), Consistent condom use with boyfriends was low in general and decreased significantly among brothel-based FSWs between 2007 and 2010 [from 22% to 17%; $p<0.01$]. Similarly, 78.0% of male clients of FSWs knew about condom in preventing HIV but less than 10.0% consistently use a condom with the FSWs (Family Health International, 2001; UNAIDS, 2002a). In Nigeria, results showed that despite FSWs' high risk sexual activities, many of them have low self-perceived risk of HIV infection (Federal Ministry of Health, 2007; Messer et al, 2007). In Nigeria, condom use has been reported to remain high among FSWs with 92.9% using condom with clients and has remained very low at 26.1% using condom with their boyfriends (National Agency for the Control of AIDS, 2012).

Reports on perceived risk of HIV infection among FSWs showed that a high number of FSWs know that the use of condoms reduce the risk of HIV transmission (UNAIDS, 2002a). Studies have also showed significant discrepancy between knowledge, perception and practice on condom use among FSWs and their clients. According to the Joint United Nations Programme on HIV/AIDS (UNAIDS), factors that contribute to this gap include limited access to health and social services, limited access to information and prevention means and limited skills and negotiating power. In Indonesia for example, while 78.0% of FSWs knew that consistent condom use prevents HIV infection, only 12.0% consistently used it in commercial sex.

2.6 Sex Work

Sex work is the practice of engaging in relatively indiscriminate sexual activity, in general with someone who is not a spouse or a friend, in exchange for immediate payment in money or other valuables (Encyclopedia Britannica 2006). A Sex worker may be female or male or transgender and prostitution may entail heterosexual or homosexual activity, but historically most sex workers have been women and most clients are men. Sex work also contributes to the HIV epidemic enormously in Sub-Saharan African and elsewhere globally. Sex workers are usually women but by no means always women; they include men selling sex to men and/or to women, transgender people (having both part male and part female sexual characteristics) and trans-varieties.

According to Shannon (2014), Female sex workers (FSWs) bear a disproportionately large burden of HIV infection worldwide. Despite decades of research and programme activity, the epidemiology of HIV and the role that structural determinants have in mitigating or potentiating HIV epidemics and access to care for FSWs is poorly understood. Ahonsi et al (2014) research results however show that in Sub-Saharan Africa, the great majority of sex workers are women selling sex to men. Many street children, boys and girls, also sell sex to men as part of their survival strategies.

2.7 Types of Female sex workers

2.7.1 "Cage girls" in Pillow houses

According to Prüss-Ustün (2013) the worst brothels are called "pillow houses", where prostitutes are separated by cloth dividers in tiny rooms. Visitors are charged money for a few minutes, and strict vigil is maintained to discourage prostitutes from talking to their customers. Payment is made to the brothel owner who keeps the money.

2.7.2 Call Girls

Call girls are commercial sex workers who are part-timers and are usually more educated, carry cell-phones, and are well groomed and cannot be compared to those living in brothels. They have

more mobility, earn higher incomes and have some freedom in choosing their clients who are mostly from the middle and upper classes of society. A study of 150 call girls, 20 clients and 10 "madams" in Delhi, Bombay and Calcutta, found that 80% percent of their clients were married. Ahonsi et al, (2014) in his study confirm that generally call girls are known to take good care of their health and visit doctors whenever necessary. Almost all of them want their clients to use condoms, though they most often comply when clients offer a much higher amount for condom-free sex. A subsequent study among call girls in Delhi in 1993 showed a high number of their clients preferred oral sex to vaginal intercourse. Some of them belonging to the upper-middle class were aware of AIDS and rejected clients who refused to use condoms. Many of them had suffered from sexually transmitted diseases (STDs) at least once and had experience of induced abortion.

2.7.3 Escort girls

According to Prüss-Ustün (2013) the costliest end of the supply chain operates with high-class escort girls recruited from women's colleges and from burgeoning fashion and film industries. These CSWs offer services for large sums of money and usually operate by way of a discreet introduction service. The boom in Internet services has seen the emergence of several snazzy websites, openly advertising escort girl services.

2.7.4 Child Prostitution

The ugliest face of the sex trade in many Asian countries is child prostitution. A 2004 UNICEF report estimates 500,000 child sex workers in India alone. Given the phenomenal increase in sex tourism, the number is bound to have risen to frightening proportions. Poor families are tricked into selling their children to such work for meager sums as 4 or 5 USD. Their family members thrust sometimes girl children who are victims of incest into this trade.

Ahonsi et al, (2014) is of the opinion that a prevailing myth that having intercourse with a virgin cures sexually transmitted diseases (STD) continues to create a demand for very young girls.

Nigerian sex work differs by region and societal classifications. According to Orubuloye and Oguntimehin (1999), commercial sex workers in Nigeria are both male and female mostly 15 years and above, providing sexual services to clients or persons willing to provide incentives in exchange for sexual gratifications. Such sexual services provided by sexual workers in Nigeria as stated by Eluwa (2012) include; oral sex, anal sex, vaginal sex and masturbation. They are basically categorized into brothel based and non-brothel based sex workers. Brothel based sex workers are the type of sex workers, mostly female who resides in an accessible locations or hot spots where clients can easily locate and pay for sexual services. The other type which is the non-brothel based are sex workers both male and female who provides sexual services through different channels and networks to clients mostly of social high class.

2.8 Role of FSWs in the HIV Epidemic

Female sex workers and their male clients have been identified as risk groups for the transmission of STDs and HIV. Unprotected sex between sex workers and their clients is one of the behaviours that are associated with the highest risk of HIV infection in Africa.

Table 1

	From DHS Data	From Other Survey Data
Benin	**0.7%**	**12-22%**
Burkina Faso	**0.2%**	**14.5-28.8%**
Côte d'Ivoire	**3.1%**	**--**
Ghana	**1.6%**	**9.2-52%**

Nigeria	**2.9%**	**--**

Percentage of Male Population Visiting Female Sex Workers Moses (2012)

According to the UNAIDS, sex workers are defined as "female, male and transgender adults and young people who receive money or goods in exchange for sexual services, either regularly or occasionally, and who may or may not consciously define those activities as income-generating. Sex work is common, especially in big cities, and women and girls involved in transactional sex are at high risk of HIV because clients may insist on or offer to pay a higher price for unprotected sex. According to Ahonsi et al (2014), other drivers of HIV in Nigeria include; multiple and concurrent sexual partnerships; discordance in long-term couples, low and inconsistent condom use. "The term ***sex worker*** has gained popularity over ***prostitute*** because those involved feel that it is less stigmatizing and say that the reference to work better describes their experience. Clients of female sex workers serve as a bridge for sexually transmitted diseases (STDs) and HIV transmission to the mainstream population such as their wives or girlfriends. As abstinence and monogamy may not be realistic goals for this group, condom use is the only method to reduce infection.

Table 3

Country	HIV Prevalence (FSWs %)	HIV Prevalence (All adult women %)
India	**13.7**	**0.29**
Kenya	**45.1**	**7.7**
Nigeria	**33.7**	**4.5**
Malawi	**70.7**	**13.3**
South Africa	**59.6**	**25.3**
Uganda	**37.2**	**8.5**
Zimbabwe	**61.2**	**21.4**

Lower prevalence countries (< 1%)	**5.1**	**0.17**
Higher prevalence countries (> 1%)	**30.7**	**5.5**

Meta-analysis of HIV prevalence among FSWs and All Adult women; Moses (2012)

2.9 Preventive Interventions

Behavioural interventions targeted at risk behaviour reduction have been developed and implemented worldwide, especially among the high-risk groups. Among sex workers, behavioural interventions have used models that have included social cognitive theory, client and peer education, negotiation skills, condom use promotion, and community engagement. These interventions have been targeted at increasing condom use, decreasing number of sexual partners, negotiation of safe sex practices, and increasing HIV knowledge and risk assessment.

Hailed as the first barrier contraceptive for women that protects against STIs, the female condom won initial approval despite a relatively high pregnancy rate among users and with limited data on its actual effectiveness against STIs. However, evidence of its effectiveness has since accumulated. As a contraceptive, the female condom compares favorably with other barrier methods. A Chinese study that compared the contraceptive efficacy of the female condom with the male condom showed similar pregnancy rates (1.06 and 1.69 pregnancies per 100 women, respectively, over six months). Discontinuation rates were higher for the female condom than for the male condom, however. During perfect use of the female condom, pregnancy rates were 2.6 in the United States and 9.5 in Latin America. These results are in the same range as other barrier methods. Other evidence from the United States suggests that the contraceptive efficacy of the female condom during typical use is similar to that of the diaphragm, the sponge, and the cervical cap. (Ahonsi et al, 2014)

2.10 HIV Counseling and Testing

Family Health International Nigeria, the largest provider of Counseling and Testing services in Nigeria has supported the national government to scale up counseling and testing services in both public and private institutions. Establishing the first VCT site in country in 2002, FHI with

funding from the United States Government have scaled up services in 86 sites, consisting of integrated, stand alone and mobile services provided by public, faith based and private organizations in 6 states of the 36 states and the federal capital territory. The massive scale up of services has been made possible with funding from U. S. President's Emergency Plan for AIDS Relief since 2004.

2.11 Condom promotion

Safe sex with condom use is vigorously being promoted in Nigeria. However, little is known about the true extent and pattern of condom use among FSWs with their clients and regular/trusted sex partners in Oyo State, Nigeria where systematic study on these issues has not been adequately conducted. This is imperative for planning of effective control strategy to mitigate the spread of HIV from these high-risk groups to the general population in the State. (The National HIV/AIDS Behaviour Change Communication Strategy 2009-2014)

Social marketing has been used widely in the promotion of the male condom in developing countries and this strategy is now being applied to the female condom. A mass-marketing campaign for the female condom in Lusaka, Zambia, raised awareness of this method, but its use is still much lower than that of the male condom. The female condom is likely to be most important for people who are unable or unwilling to use the male condom.(NACA 2008)

Conclusive evidence from extensive research among heterosexual couples in which one infected partner is infected with HIV shows that correct and consistent condom use significantly reduce the risk of HIV transmission from both men to women, and also from women to men. Consistent condom users in one study had statistically significantly lower rates of gonorrhea and Chlamydia in both men and women, and of trichomoniasis in women and genital herpes in men than inconsistent users. (Shlay, McClung and Patnaik, 2004)

Condoms are usually made of latex or polyurethane with lubrication for easy sexual intercourse. Lubrication on condoms varies. Some condoms are not well lubricated, some are lubricated with a silicone substance, and some condoms have a water-based lubricant. The lubrication on condoms aims to make the condom easier to put on and more comfortable to use, it can also help prevent condom breakage. Lube is also available separately.

2.12 Types of condom

There are two main types of condom. What is generally called a condom is the 'male' condom, a sheath or covering which fits over a man's penis, and which is closed at one end. There is also now a female condom, or vaginal sheath, which is used by a woman and fits inside the vagina.

2.13 Female condom

A **female condom** (also known as a **femidom**) is a device that is used during sexual intercourse as a barrier contraceptive and to reduce the risk of sexually transmitted infections (STIs—such as gonorrhea, syphilis, and HIV) and unintended pregnancy. Invented by Danish MD Lasse Hessel, it is worn internally by the female partner and provides a physical barrier to prevent exposure to ejaculated semen or other body fluids. Female condoms can be used by the receptive partner during anal sex.(“How do I Use Female Condoms?". Planned Parenthood Federation of Nigeria. 2013).

The female condom is a lubricated polyurethane sheath with a flexible ring on each end. One ring covers the cervix like a diaphragm; the other remains outside, partly covering the labia. The female condom is a thin, soft, loose-fitting rubber with a flexible ring at each end. They typically come in varieties of sizes. For most vaginas, a moderately sized condom is adequate. The inner ring at the closed end of the sheath is used to insert the condom inside the vagina and to hold it in place during intercourse. The rolled outer ring at the open end of the sheath remains outside the vagina and covers part of the external genitalia.

Benefits of using female condoms

1. It reduces the risk of HIV and STIs
2. It reduces the chances of getting pregnant
3. They are easy and simple to use
4. Condoms have been rarely demonstrated to have side effects
5. It shows your partner that you can be trusted to be responsible
6. You can relax and enjoy yourself
7. Can be used during menstruation or pregnancy, or after recent childbirth.

8. Eliminates the woman's concern that the man won't wear a condom. She can protect herself from pregnancy and STIs without relying on the male condom.
9. Condoms are available without a prescription
10. They are fairly inexpensive (though more expensive than male condoms).
11. You can buy female condoms at most drugstores, STI clinics, and family planning clinics.
12. You need to plan to have a condom on hand when you have sex. However, female condoms may be placed up to 8 hours before intercourse. You may also make inserting the condom part of your lovemaking.

2.14 Female condom promotion

In November 2005, the World YWCA called on national health ministries and international donors to commit to purchasing 180 million female condoms for global distribution in 2006, stating that "Female condoms remain the only tool for HIV prevention that women can initiate and control," but that they remain virtually inaccessible to women in the developing world due to their high cost per piece. If 180 million female condoms were ordered, the price of a single female condom was projected to decline. (Moses 2012)

In 2005, 12 million female condoms were distributed to women in the developing world. By comparison, between 6 and 9 billion male condoms were distributed that year. Recently, a number of initiatives have been undertaken by international and intergovernmental organizations to expand access to the female condom. In 2012, the United Nations (UN) Commission on Life-Saving Commodities for Women and Children endorsed female condoms as one of its 13 Life-Saving Commodities, catalyzing inter-organizational efforts to overcome several commodity-specific barriers currently inhibiting women in the developing world from benefiting from this product.

Condoms are a key component of comprehensive HIV prevention. WHO supports a combination of approaches to prevent the sexual transmission of HIV, including correct and consistent condom use, reduction in the number of sexual partners, HIV testing and counseling, delaying sexual debut, treatment for STIs and male circumcision. In 2009, 2.6 million people were newly infected with HIV.

Evidence indicates that effective HIV prevention packages for sex workers should include combinations of biomedical, behavioural, and structural interventions tailored to local contexts, and be led and implemented by sex worker communities. A model simulation based on the South African heterosexual epidemic suggests that condom promotion and distribution programmes in South Africa have already reduced HIV incidence in sex workers and their clients by more than 70 %.(Kerrenga et al 2014)

WHO works with its key partners in HIV prevention, in particular UNFPA and UNAIDS, to define global policy standards and support countries in condom procurement, quality assurance, promotion and distribution. "Global Health Sector Strategy on HIV/AIDS 2011-2015"

2.15 Safer sex

Sex worker projects worldwide show the feasibility of increasing condom use to decrease STI and HIV acquisition. In Santo Domingo, Dominican Republic, condom use and rejection of condom less sex increased because of workshops and meetings with sex workers, sex establishment owners and managers, and other employees, to strengthen collective commitment to prevention, particularly in supporting sex workers to use condoms with partners. (Kerrenga et al 2014)

These gatherings also focused on issues of trust and intimacy in condom use negotiation between sex workers and regular paying and non-paying partners. Interventions such as motivational interviewing have improved condom use and harm reduction in FSWs who also inject drugs.

Practicing safe sex protects against HIV, STIs and unplanned pregnancy. This means taking precautions during sexual activity and using condoms to prevent the exchange of blood, semen and vaginal fluids.

Negotiating safe sex can be difficult independent of age or sexual experience, particularly for women that are sex workers.

2.16 Conceptual Framework

Theory is considered to be a systematic organized knowledge applicable to a relative wide variety of circumstances devised to analyze, predict and or explain the nature of behaviour of a specified set of phenomena while models are considered to be a visual construct of proposed causal linkages among a set concepts believed to be related to a particular health challenge.

In this study, the researcher used the **Health Belief Model** to analyze the behaviour of FSWs towards female condom use.

The Health Belief Model (HBM) addresses the individual's perceptions of the threat posed by a health problem (susceptibility, severity), the benefits of avoiding the threat, and factors influencing the decision to act (barriers, cues to action, and self-efficacy). The Health Belief Model (HBM) can be useful in analyzing action or noncompliance, originally introduced in the 1950s by psychologists working in the U.S. Public Health Service (Hoch Baum, Rosenstock, Leventhal, and Kegeles). They assumed that people feared diseases, and that health actions were motivated in relation to the degree of fear (perceived threat) and expected fear-reduction potential of actions, as long as that potential outweighed practical and psychological obstacles to taking action (net benefits).

2.17 Health Belief Model

HBM was spelled out in terms of four constructs representing the perceived threat, perceived susceptibility, perceived severity, perceived benefits, and perceived barriers. These concepts were proposed as accounting for people's "readiness to act." An added concept, cues to action, would activate that readiness and stimulate overt behavior. A recent addition to the HBM is the concept of self-efficacy, or one's confidence in the ability to successfully perform. (Figure 3)

Figure 3: Health Belief Model (HBM)

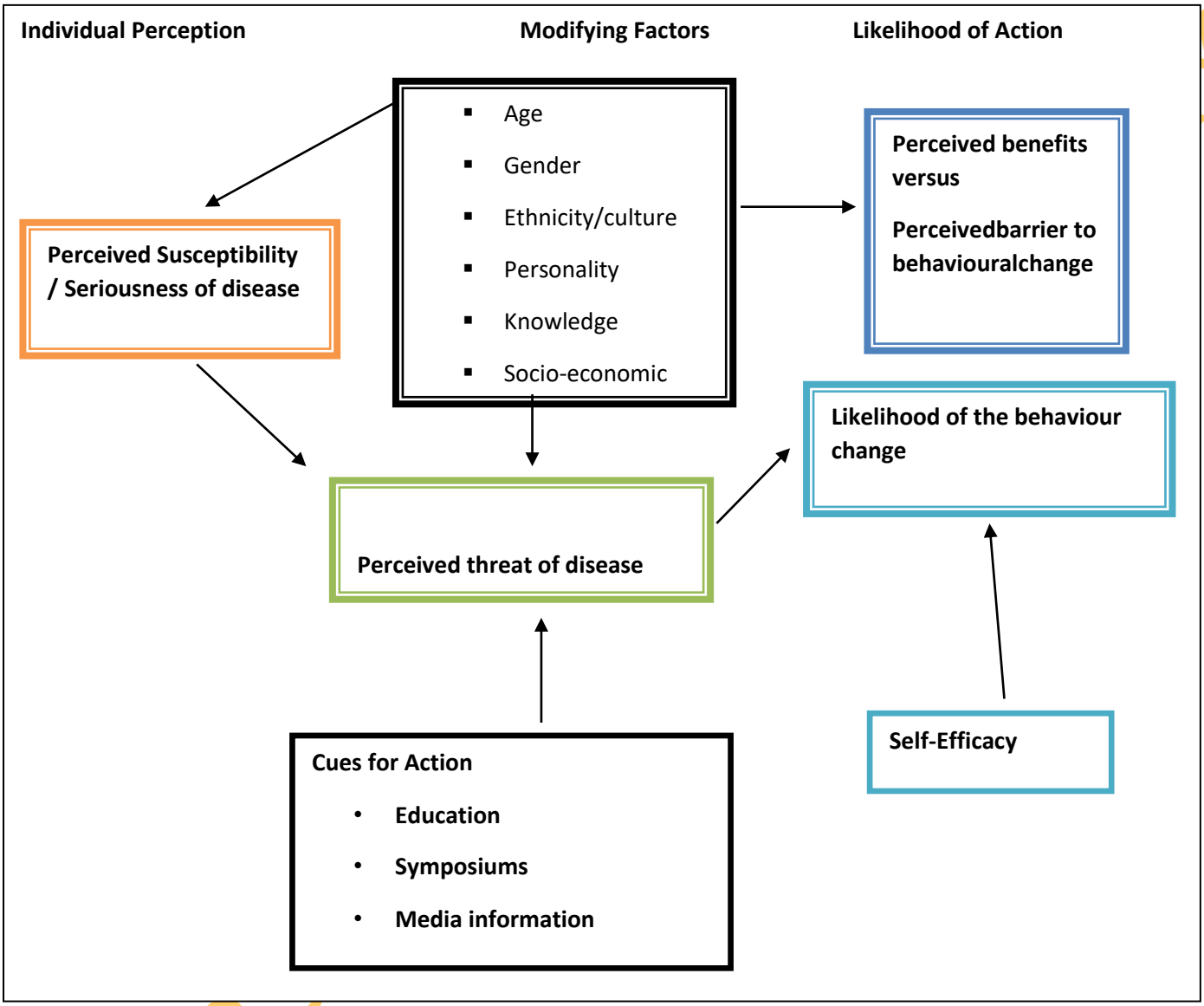
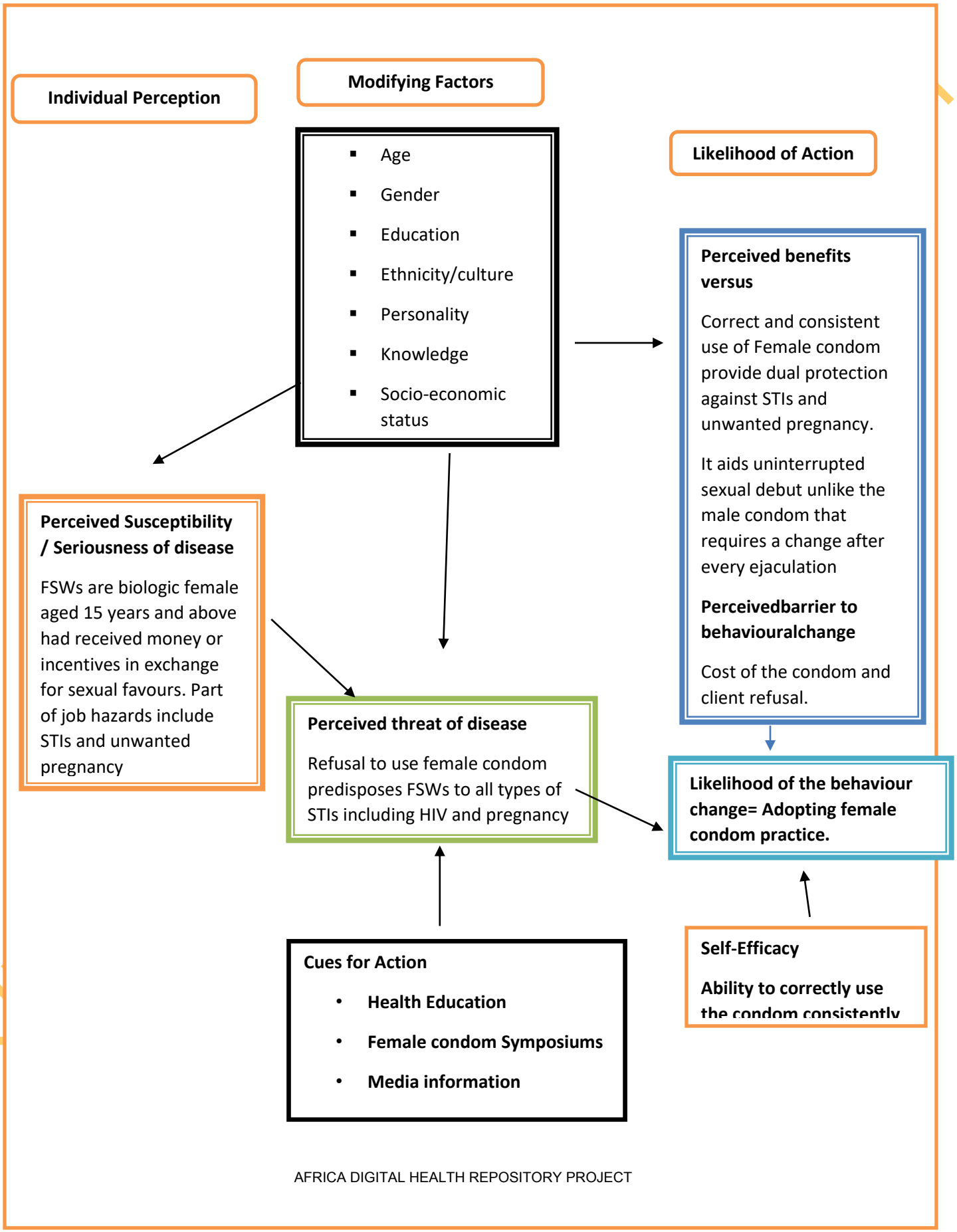


Figure 4: Health Belief Model (HBM) Application



2.18 Health Belief Model (HBM) Constructs applied To Knowledge, Experience, and Intention to Use Female Condom by Female Sex Workers in Ibadan Metropolis

HBM presents a systematic way of understanding events or situations affecting public health concerns. It has a set of concepts, definitions, and propositions that explain or predict these events or situations through illustration that shows relationships between variables. In order to understand and determine the knowledge, experience, and intention to use female condom by sex workers the following construct provided guide to the researcher;

Perceived susceptibility; female sex workers provide sexual services for money daily to clients with unknown STIs' status, and sometimes in very difficult situations. Many of them are aware of the risk and predisposed to cases of STIs among other hazards in sex work. A reliable and tested method of protection against all STIs is the female condom.

Perceived severity; while some sexually transmitted diseases are curable, some may lead to death if not properly managed due to the severity. Cases of HIV infection are common among sex workers who are not using any form of protection.

Perceived benefits; use of female condom provide protection against all form of sexually transmitted infections. FC also barrier methods against unplanned pregnancy, without a chance of breakage or leakage if properly inserted into the vaginal before sexual activity.

Perceived barriers; some of the barriers in female condom use include its availability in the neighbourhood supermarket like the male condoms. The technicality in it's usage and the cost of purchase are barriers to female condom use.

Perceived threat; the hazards in commercial sex business behoove continuous use of protection due to the threat which include loss of life to AIDS and other complicated sexually transmitted infection as a result of unprotected sex.

Cues to action; the likelihood to adopt condom use behaviour is motivated by threat of HIV. Many FSWs seek information on FC through seminars in order to increase their capacity to use condom correctly.

The framework provided bases to design the research instruments as well as determine the relationship between the variables in the study.

Application of Theory to instrument design;

Perceived susceptibility; brothel based FSWs are vulnerable groups providing sexual services in exchange from incentives. Questions 8, 9,10,11,12 examined the perceived susceptibility of FSWs to sexually transmitted infections and unwanted pregnancy. (See Appendix 1)

Perceived severity; question 26 and 25 examined the FSWs' perceived severity of the respondents of the dangers of not using protection (FC) for vaginal sex.(See Appendix 1)

Perceived benefits; question 24, 33, 35, and 36examined the perceived benefits of FC to FSWs. (See Appendix 1)

Perceived barriers; the barriers of assessing FC for every vaginal sexual services were examine with questions 41, 42, 43, 44, and 46. (See Appendix 1)

Perceived threat; questions 38, 39 and 40 examine the perceived threat while question 45 to 47 determined the cues to action of FSWs respectively.(See Appendix 1)

This assisted the researcher in the understanding of data and its analysis.

CHAPTER THREE

METHODOLOGY

3.0 Research Design

The study was a descriptive, cross sectional survey in nature. It was designed to find out the knowledge, use, and intention of female sex workers in of Ibadan metropolis to the usage of female condom. Therefore, the researcher from the results of the study was able to document the factors that affect the use of female condom and knowledge of female male condom as a method of protection against sexually transmitted infections and unintended pregnancy.

3.1 Description of the Study Area

The study was carried out at the hotspot/Brothel facilities within Ibadan metropolis. These include Kara, Sango, Mokola (Central Hotel), Ekotedo, Molete, Angle 90 and Idi-Arere. These are hotel buildings sited within trade centers, with rooms of different sizes and bars selling cheap and assorted alcoholic drinks. They also operate in houses beside hotels and bars within Ekotedo area of Ibadan metropolis. While the female sex workers operating in the houses are managed by caretakers, the hotel managers control the activities of the FSWs residing in their facilities. These facilities has the capacity to accommodate a hundred to a hundred and forty five FSWs. Commercial sex workers in Kara market operate in shops and kiosks within Abattoirs and slaughter slabs at Bodija markets. There are six hotels operating in the interior area beside the plank sellers and Hausa traders Association secretariat. Kara market has the population of a hundred and sixty six FSWs.

These facilities are located in five local government areas in Ibadan metropolis namely; Ibadan North, Ibadan North East, Ibadan North West, Ibadan South East, and Ibadan South west LGAs

Ibadan is the capital city of Oyo State located in the southwest geo-political zone of Nigeria. With a total population of 5,591,589 (National population commission, 2006), Ibadan is a metropolitan city of multiple ethnicities and the largest city in West Africa. The city is bounded by Oluyole LGA on the South, southwestern and south-eastern side by Lagelu LGA on the northern and eastern sides and Akinyele LGA on the northern and western sides (Federal Survey, 1967). Ibadan has 11 local government areas, 5 urban and 6 peri-urban local governments.

3.2 Study Population

The target populations are brothel based Female Sex Workers (FSW) in Ibadan, consisting of FSWs from Ibadan North, Ibadan North East, Ibadan North West, Ibadan South East and Ibadan South west LGAs. Eligible respondents were FSWs residing in the brothels in September 2014 when the study was conducted

3.3 Sample size

The researcher conducted an enumeration in all the brothels in Ibadan metropolis. The total population present in 16 brothels at the time of the mapping exercise was 387.

The sample size for this study was calculated using the formula as used byLwanga and Lemeshow (1991). The prevalence of condom use (35.3%) based on the research work of Eluwa et al in 2012, on Sexual Risk Behaviors and HIV among Female Sex Workers in Nigeria. The degree of accuracy is desired to be at the precision of 5% =0.5, the confidence level to be used is 95% which correspond to the value of 1.96.

Formula

$$\frac{n = Z^2 pq}{d^2} = \frac{(1.96)^2 (0.36) (0.5)}{(0.05)^2} == \frac{0.691488}{0.0025}$$

$$=276.59$$

The researcher recruited the total population present at time of the survey, considering the fact that the number of female sex workers was not large.

3.3.1 Inclusion Criteria

The researcher engaged participants from brothels in Ibadan metropolis; these include Kara, Sango, Mokola (Central Hotel), Ekotedo, Molete, Angle 90, Lemomu/salvation army community, and Idi-Arere. These facilities are located in five local government areas in Ibadan metropolis namely; Ibadan North, Ibadan North east, Ibadan North West, Ibadan South East, and Ibadan South west LGAs of Oyo State in Nigeria.

Only the FSWs that are present when the research was conducted and gave their informed consent were allowed to participate in the study.

3.3.2 Exclusion Criteria

Female sex worker that is not based in the brothel were not allowed to participate in the survey.

3.4 Sampling Technique

This survey adopted total sampling due to characteristics of the sample population which is open and highly mobile. The study was conducted on the total population present at the time of the survey.

3.5 Instrument of Data Collection

The researcher collected data using both quantitative and qualitative data collection methods. The instrument adopted for quantitative data collection includes an interviewer administered, semi structured questionnaire and in-depth interview was used for qualitative data.

The interviewer administered questionnaire was a 70 items divided into six sections (see Appendix 1): demographic data and questions on Knowledge, experience, and intention to use female condom by female sex workers. Open and close ended questions were utilized in the formulating the questionnaire. The questions were asked in the language the respondents could understand. The pretested questionnaires were administered among estimated total population.

Secondly, the pretested in-depth interview (IDI) guide containing discussion questions on the Knowledge, experience, and intention to use female condom was used to collect qualitative data. The instrument had the following sections; introduction, discussion question and conclusion. (See appendix 2). Four in-depth interviews were conducted in the study area. This was carried out among FSWs (N=4) with minimum of five years in the sex service business. Respondents were recruited based on the information provided and participation was voluntary among FSWs with at least five years' experience and a knowledge and experience with FC. The IDI guide consisting of 7 questions was used to guide the interview with the use of a recorder and Pen with a sheet of paper used by a research assistant as a back up to the recording device. The interview lasted 45 minutes for each of the session, and after each session, the recorder was played,

transcribed and narrative themes were generated using thematic approach. The responses from the IDI were reported verbatim and this was used to modify the questions in the questionnaire.

3.6 Validity

Validity is the degree to which a test measures what it is supposed to measure (Key, 1997). To ensure validity of the research instruments, the instrument was written in simple English that is easily understood by person with at most 9 years of education in order to aid comprehension of the respondents. The language used was void of ambiguous sentences and constructs to avoid misunderstanding of the questions. The IDI guide and the questionnaires were review by the researcher's supervisor and peer review by senior colleagues to provide face validity.

3.7 Reliability

The reliability of a research instrument is the extent to which the instruments yield the same results on repeated trials. The researcher attempted to enhance the reliability of the instrument through pretesting the qualitative instrument (IDI guide) and quantitative instrument (questionnaire) among FSWs in a population that has similar characteristics with the actual study population. The pretesting was carried out on 29 respondents in Apata area of Iddo local government area of Oyo State. The pretesting enabled the researcher to discover possible ambiguity and error. Some of the errors corrected include language and statement that was misinterpreted by the respondents as well as phrases that were considered offensive to the FSWs which was rectified and replaced before the final administration of the tools. The Cronbach's Alpha method was used to determine the reliability of the questionnaire. An Alpha coefficient of 0.898 was derived after analysis, which signifies a high strength of the research instrument.

3.9 Method of Data Collection

The study proceeded immediately after ethical approval was secured on the 16th of September 2014. Data collection took place within 17th September to 4th of October 2014.

Collection of Qualitative Data

The researcher and a male research assistant conducted the four IDI with female sex workers in four different brothels within Ibadan metropolis using IDI and the focus of the IDI was to determine the knowledge, experience and intention of the FSWs to the use of female condom with clients and regular partner(s). The interview took place in their respective room at an appointed time suitable with the FSWs. The interview took 45 minutes to an hour and an electronic recording device was used while the research assistant took note with a biro and a jotter to ensure accurate data was collected from the interview.

3.10 Collection of Quantitative Data

The researcher recruited five research assistants for data collection using questionnaire. They were trained to ensure that they have adequate understanding of the instrument before the commencement of data collection. The training was focused on the objectives of the study, sampling processes, how to secure respondent's informed consent, and review of questions to ensure completeness.

The research assistants, all male were engaged in brothel to brothel collection of data from the female sex workers. They ensured the questionnaires were filled and clarify of any vague answers on the spot. The researcher supervised the research assistants and ensured compliance to ethical issues within the period of eight days of data collection.The researcher checked the questionnaire each day to resolve any challenge identified. Incentive like condoms and water based lubricants were provided to all the participants.

3.11 Data Management and Analysis

The researcher collated and edited all questionnaires along with the research assistants. The data was stored in a cool dry place that is safe from destruction by rodents, fire and water.

A coding guide was developed to facilitate data entry. Each questionnaire was given a serial number, coded and entered into a computer facilitated by the developed coding guide. Data analysis was done using the SPSS software (version 20). Simple descriptive statistics (Frequency, percentages and mean) as well as chi square (χ^2)test were used for the analysis. Cross tabulation of some of the independent variables against dependent variables of the research, such as use of FC and age, FC use and location, religion, and ethnicity

Quantitative data were collected before the structured interviews with female sex workers to discuss participants' experiences using the female condom. The interview took place in the rooms of the FSWs at an appointed time. Participants discussed their overall impressions of the device, their experiences using it with different types of sexual partners, aids and barriers to use, and suggestions for encouraging use among peers. Transcripts were analyzed using thematic method of qualitative analysis.

There are six major variables derived from the conceptual framework that are relevant to this study. This include awareness/knowledge of the female condom, perceptions of FSWs about female condom, history of female condom use, factors that determine the use and or non-use of female condom, availability/affordability of female condom, acceptability of the female condom among the study population, and the intention of non-users to adopt the practice of using the female condom.

The awareness and knowledge questions were scored as follows; correct responses to each item were given a point and wrong responses were given no mark. The total maximum obtainable score was 11 points and 0 point was the minimum. 1 point was assigned to correct answer to analyze the 11 awareness. Scores were categorized into low awareness (0-5) and high awareness (6-12). 2 points was assigned to correct answer to analyze the 6 knowledge items. Scores were categorized poor knowledge (0-5) and good knowledge (6-12). The awareness and knowledge scores were converted to mean and standard deviation.

Frequency tables were generated the data, the mean and standard deviation of some variables was also calculated.

3.11 Ethical Considerations

The proposal was approved by the ethics review committee of the Oyo State Ministry of Health. (See Appendix 2). Since the study required the respondents to discuss private and sexual matters, Informed consent was obtained from the respondents prior to questionnaire administration. The confidentiality of the FSWs participating in this survey was protected through appropriate training for research assistants, adequate field supervision and with no form of individual identifier. The research participants have the right to participate or decline to enroll for the study and withdraw from the research at any stage of the survey.

CHAPTER FOUR

RESULTS

4.1 Demographic Profile of Respondents

A total of two hundred and ninety three (293) questionnaires were administered following the appropriate sampling techniques discussed in chapter three. Two hundred and ninety three (293) questionnaires were retrieved and analyzed using Statistical Package for Social Science (SPSS) Version 21. Below are the personal characteristics of respondents such as age-range, marital status, sexual services to regular partners etc.

Majority of the study participants were based in Ibadan North local Government area of Ibadan metropolis with a total of 112 (38.2%) female sex workers from 8 brothels volunteered to participate in the study while 86 (29%) was recruited from Ibadan North West LGA, 48 (16.4%) from Ibadan North East LGA, 29 (9.9%), FSWs from Ibadan South West LGA and finally, 18 (6.1) female sex workers from Ibadan South West LGA respectively.

Demographic information of the respondents (N=293)

Findings revealed that majority of the participant falls within the age range of 21 to 30 years with a mean of 27.8 ± 4.9 years. Majority of the respondents, 232 (79.2%) were aged between 21-30 years. Following the ethnic groups in the studied area of Ibadan metropolis; Edo 135(46.1%), Ibo 94 (32.1%), Delta 22 (7.5%) Benue 18(6.1%),Yoruba 10 (3.4%), and Ghana 5 (1.7%)respectively. (Table 4.1)

Table 4.1; Socio-demographic information (Age, Ethnicity and Religion)

Age of Respondents	No	%
</=20 years	16	5.5
21-30 years	232	79.2
31-40 years	40	13.7
>/=41 years	5	1.7
Ethnic groups		
Yoruba	10	3.4
Hausa	2	.7
Ibo	94	32.1
Edo	135	46.1
Ilaje	3	1.0
Benue	18	6.1
Delta	22	7.5
Ghana	5	1.7
Local Government Area		
Ibadan North LGA	112	38.2
Ibadan North East LGA	48	16.4
Ibadan North West LGA	86	29.4
Ibadan South East LGA	18	6.9
Ibadan South West LGA	29	9.1
Religion		
Christianity	282	96.2
Islam	4	1.4
Traditional	4	1.4
No response	3	.9

Furthermore, following other occupations in the distribution in Ibadan metropolis; most of the FSWs chose artisan 103 (35.2%) and trading 84 (28.7%) as alternative business to the sex work. Educational qualification of the respondents were majorly; Secondary education completed 142 (48.2%) and Secondary education not completed 125 (42.7%)respectively.(Table 4.2)

Table 4.2; Respondents' alternative occupation and level of education

Other Occupations	N=	%
Trading	84	28.7
Artisan	103	35.2
House wife	2	.7
Menial job	45	15.4
Self employed	54	18.4
No response	5	1.7
Highest Level of Education		
No formal education	5	1.7
Primary education	5	1.7
Vocational education	4	1.4
Secondary education completed	142	48.5
Secondary education not completed	125	42.7
Tertiary education	11	3.8
No response	1	.3

Number of Clients per day among the respondents as follows ranges between 5-8 person per day for 200 FSWs (68.3%) and 9-11 person per day 55 (18.8%).(Table 4.3)

Table 4.3: Number Clients per day

Number of Clients/ day	N	%
</=4	22	7.5
5-8	200	68.3
9-11	55	18.8
>/=12	16	5.5

Marital status of the respondents were never married 261 (89.1%) while amount per sexual episode among the respondents as follows; ₦200-600per sexual episode measure 272 (92.86%), and ₦600-1000. Accommodation charges on weekly basis among the respondents as follows; ₦1000-2500per week 173 (59%) was ranked 1st position in the distribution of female sex workers. The mean score indicate ₦ 540.27 and ₦1500 range for charges per sexual episode while mean score for accommodation charges revealed ₦2461.77 and the range of ₦4000(Table 4.4)

Table 4.4; Amount per sexual episode and accommodation charges

Amount Per Sexual Episode (N)	**N=**	**%**	**Mean**	**Range**
200-600	272	92.8		
600-1000	18	6.1	655.17	500
1400-1800	3	1.0		
Accommodation Charges / Weekly (N)				
1000-2500	173	59.0		
2500-4000	119	40.6	2461	4000
4000-5500	1	.3		

Majority of the FSWs are engaged to 1 person 248 (84.6%),2 person measure 35 (11.9%) within the LGA respectively.

Sexual services to clients on to the following has their desires appeals to the respondents as follows; virginal sex 293 (100%) was recorded yes; anal sex 1 (.3%) was recorded for yes while

292 (99.7%) says no; oral sex 5 (1.7%) was recorded for yes while 288 (98.3%) says no; Masturbation 4 (1.4%) was recorded for yes while 289 (98.6.7%) says no in the distribution of female sex workers from the LGA respectively. Sexual services to regular partners clients on to their desires as it appeals to the respondents as follows; virginal sex 293 (100%) was recorded yes; anal sex 285 (97.3%) was recorded for yes while 8 (2.7%) says no; oral sex 30 (10.2%) was recorded for yes while 263 (89.7%) says no and finally, Masturbation 27 (9.2%) was recorded for yes while 266 (90.8%) says no in the distribution among female sex workers from the LGA respectively. (Table 4.5)

Table 4.5; Sexual services to clients and boyfriends (Regular partners)

Sexual Services to Clients	**Yes**	**(%)**	**No**	**(%)**
Vaginal sex	293	100.0	-	-
Anal sex	1	.3	292	99.7
Oral sex	5	1.7	288	98.3
Masturbation	4	1.4	289	98.6
Sexual services to Regular Partners				
Vaginal sex	293	100.0	-	-
Anal sex	285	97.3	8	2.7
Oral sex	30	10.2	263	89.7
Masturbation	27	9.2	266	90.8

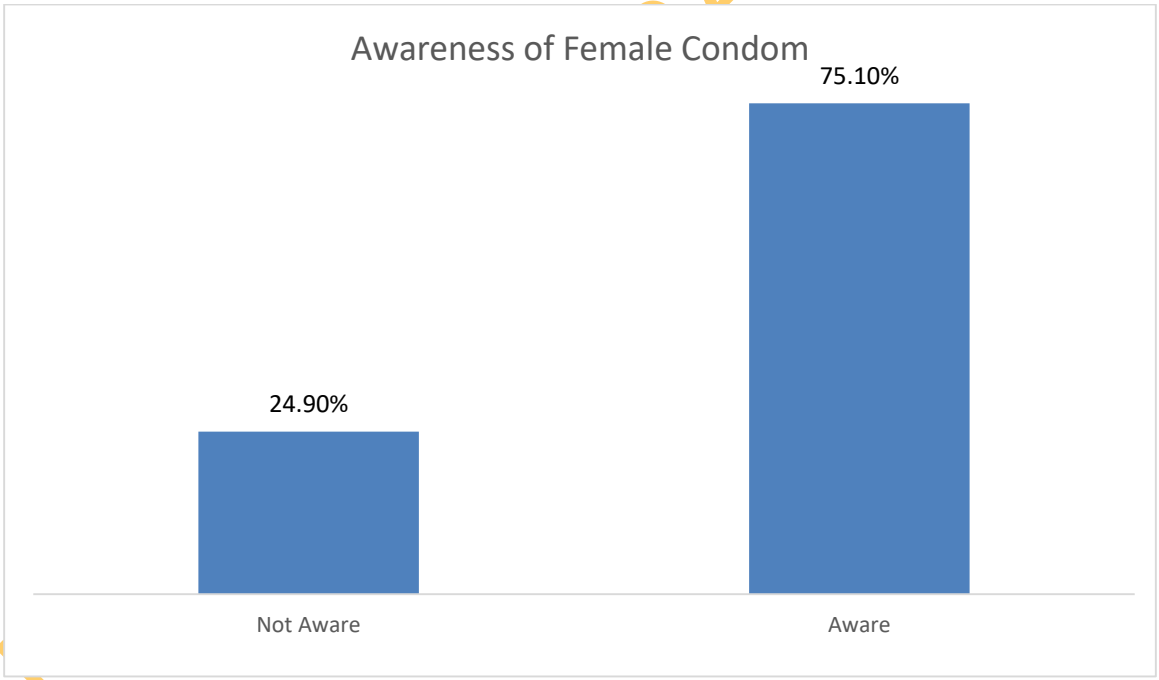
4.2. Section B; Awareness and Knowledge of female condom

Awareness of female condom

The awareness questions were scored as follows; correct responses to each item were given a point and wrong responses were given no mark. The total maximum obtainable score was 11 points and 0 point was the minimum. 1 points was assigned to correct answer to analyze the 11 awareness. Scores were categorized into not aware (0-5) and aware (6-11). The awareness and knowledge scores were converted to mean and standard deviation.

The mean score of the awareness is 4.16 ± 1.9. 24.9% (73) of the respondents had high awareness while others responded low to the questions. The most popular source of information NGO seminars (60.4%) and community leaders such as the Chairlady and the brothel police (21%). Other sources of information include the neighbourhood pharmacy, friends and the media. (See figure 4.2.1)

Figure 4.2.1: Awareness of Female Condom



Knowledge of Female condom use

The result reveals that the participants are knowledgeable among the FSWs in Ibadan metropolis about the use of female condom were presented on the account of Yes and No in percentages as follows: FSWs ever heard of female condom were 258 (88.1) out of the population of 293. This reveals that the larger percentage is aware of female condom.

A point Knowledge scale was developed to analyze the knowledge question answered by a total 258(88.1%) with FC awareness. Correct responses in each item were given two point and wrong responses were given no mark. The total maximum obtainable score was 12 points and 0 point was the minimum. 2 points was assigned to correct answer to analyze the 6 knowledge items. Scores were categorized poor knowledge (0-5) and good knowledge (6-12). 45% of the FSWs that are aware have good knowledge of the FC while a higher percentage (54.6%) has poor knowledge. (See figure 4.2.2)

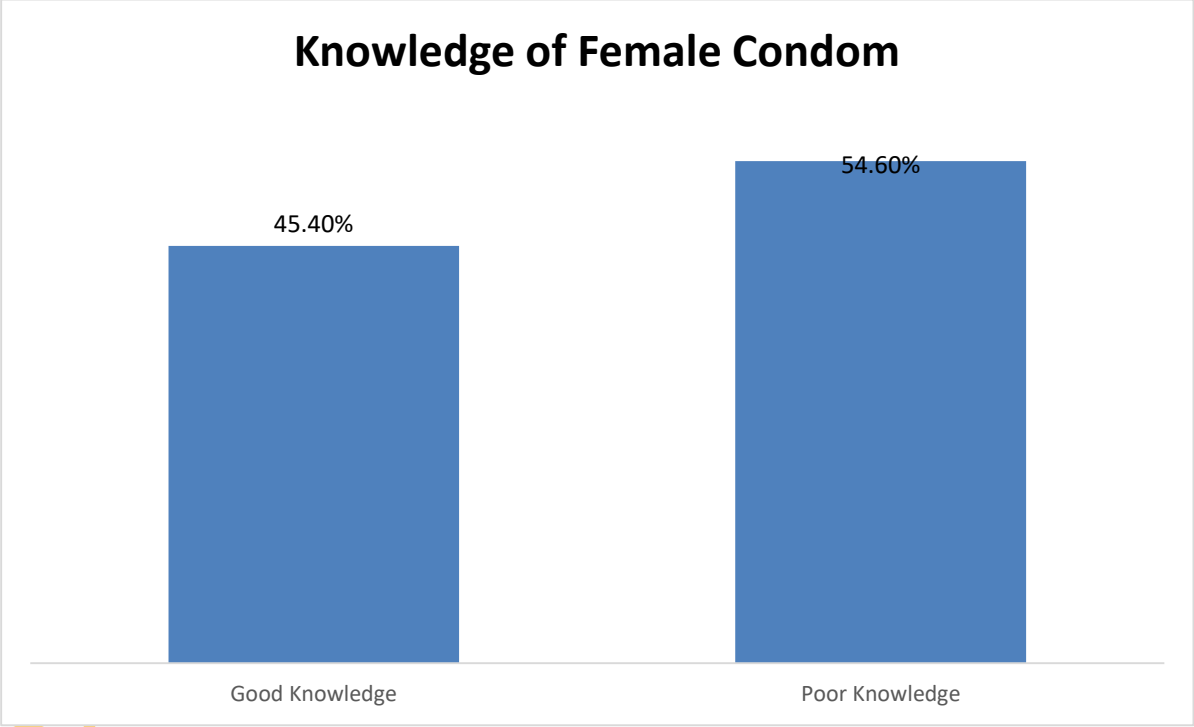


Figure 4.2.2: Knowledge of Female Condom

4.3 FSWs ever used the female condom

The ranking of the items were based on what proportion of FSWs has ever used the female condom. This was presented based on Yes and No in percentages as follows: the FSWs ever use female condom were 98 (33.4%) displayed their sense of agreement to have used it while 173 (66.6%) has not used female condom. (See figure 4.3.1)

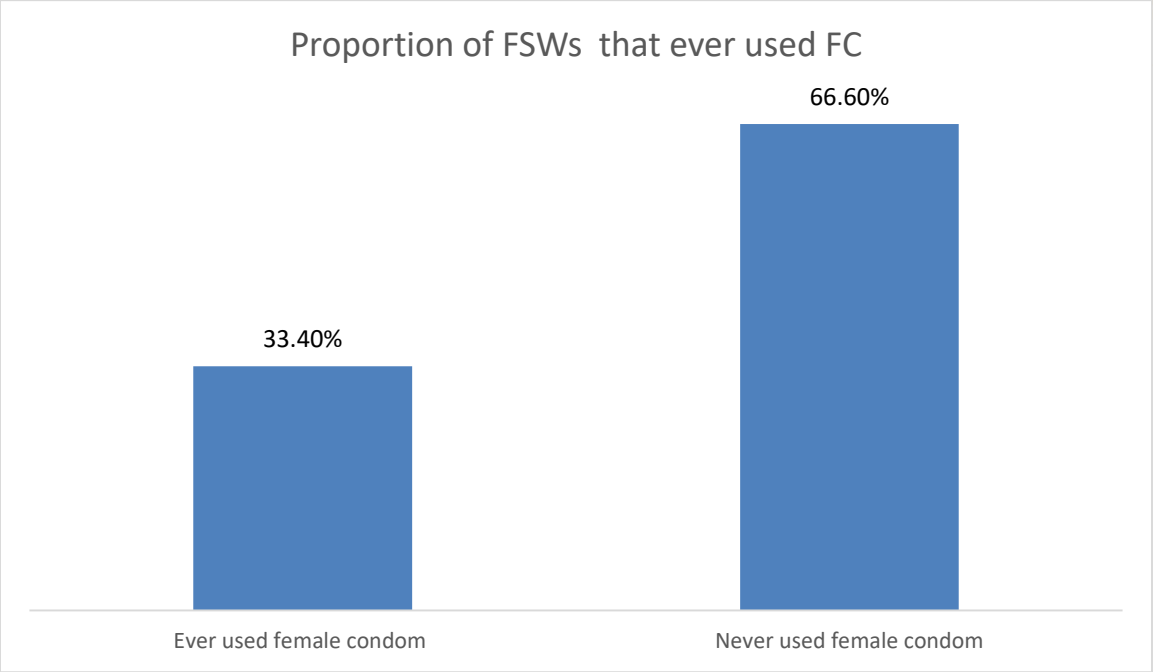


Figure 4.3.1: Proportion of FSWs that ever used FC

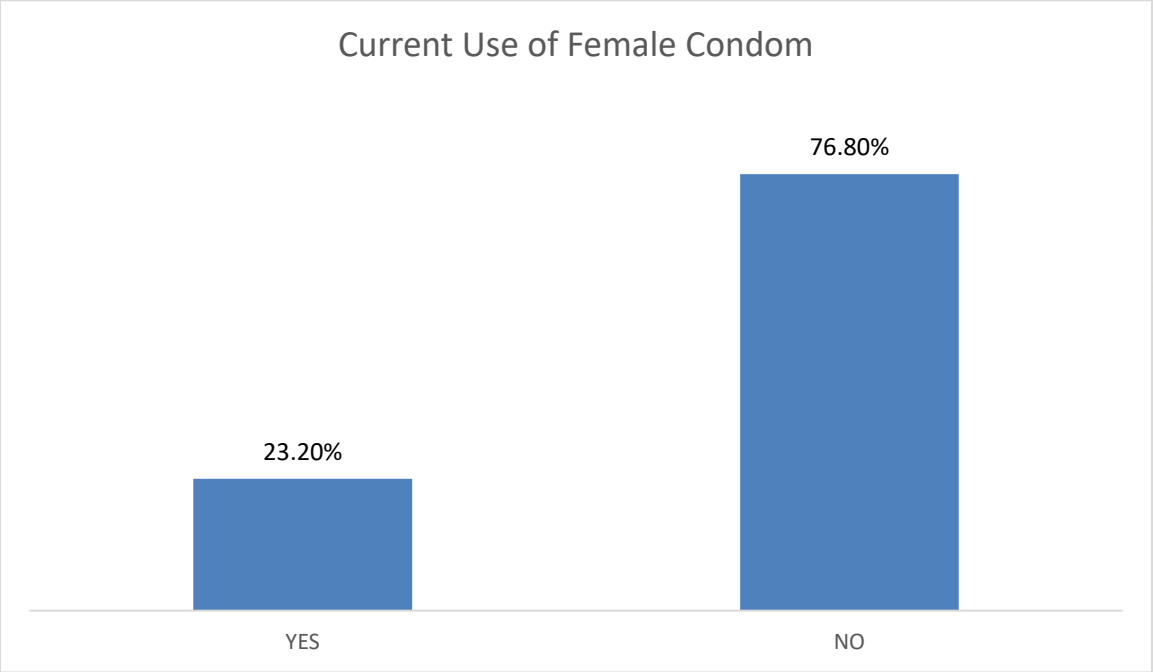
4.4 Current use of female condom.

A total of 23.2 % of the study participants are currently using female condom. This percentage of sex workers use female condom to prevent unwanted pregnancy, they have access to female condom for daily use through supply from NGOs and from the pharmacy stores in the neighbourhood. (Table 4.4 and figure 4.4)

Table 4.4: FSWs in Ibadan metropolis currently using the female condom.

Items	Yes	(%)	No	(%)	Sometimes	(%)
Do you also use female condom to prevent unwanted pregnancy?	68	23.2	225	76.8	-	-
Do you have access to female condom for daily use?	21	7.2	211	82.0	61	20.8
Are you comfortable anytime you visit stores for female condom purchase?	68	23.2	225	76.8	-	-

Figure 4.4



Current Use of Female Condom by Female Sex Workers

4.5 Factors that affects the usage of female condom among the Female Sex workers

According to the findings from the study, large percentage (37%) of the female sex workers has preference for the male condom because of its convenience compared to the female condom. (See figure 4.5 and Table 4.5)

Figure 4.5: Experience with female condom

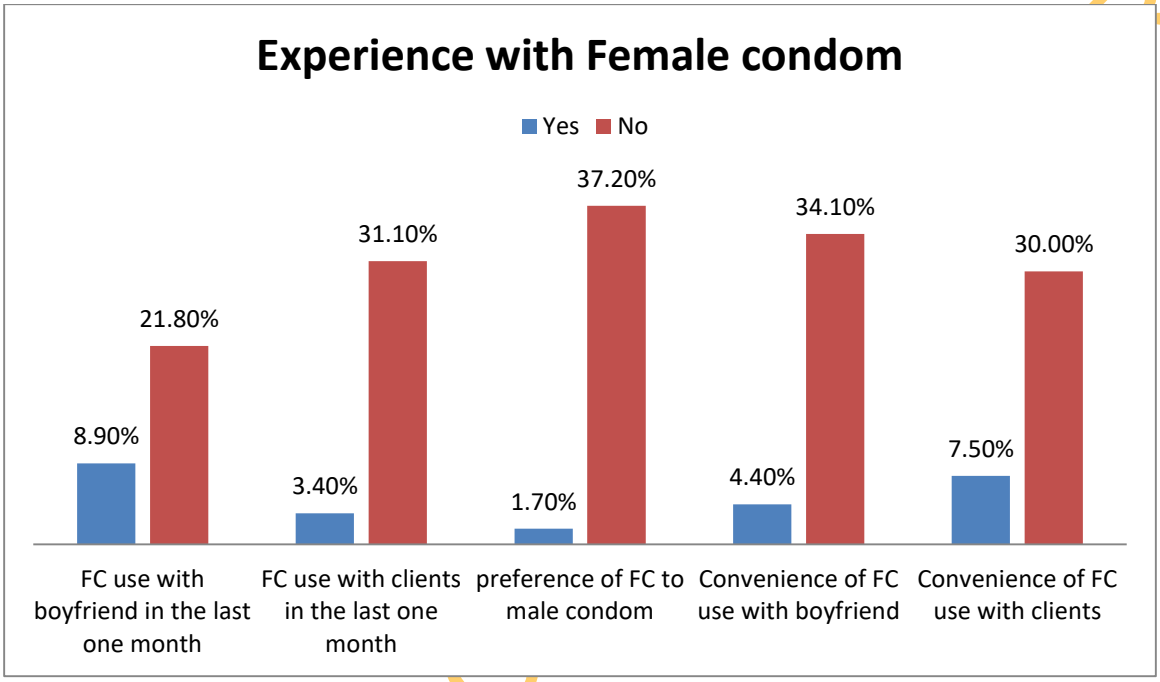


Table 4.6: FSWs who are currently not using the female condom intending to adopt that practice.

Items	Yes	(%)	No	(%)	Sometimes	(%)
FSWs whose colleagues are using female condom	28	9.6	214	73.3	51	17.4
FSWs who have unused condom do at the moment	80	27.3	183	72.7	-	-
FSWs whose clients reject female condom use	2	.7	191	99.3	-	-
FSWs whose regular partner allow the use of female condom	39	13.3	252	86.0	2	.7
FSWs who have difficulty inserting the female condom	3	1.0	290	98.9	-	-

4.6: Relationship between Female condom use and Location (LGA) of respondents

Table 4.7 shows the relationship between FC use and local government areas where brothel based FSWs were situated. There are more female sex workers 40 (48.2%) that have used FC in Ibadan North West LGA compared to other FSWs in other LGAs covered in the study. The relationship was found to be statistically significant ($p<0.05$)

The relationship between FC use and the age of brothel based FSWs. There are more users of female condom within the age group of 26-30. However, the relationship was found not to be statistically significant ($p>0.05$)

The relationship between FC use and the religion of brothel based FSWs. There were more users of FC among Christian FSWs 96(33.5%) than the FSWs of Islamic religion. However, relationship was found not to be statistically significant ($p>0.05$)

The relationship between FC use and the ethnic group of brothel based FSWs. There were more participants' users of FC from the Edo ethnic group than other participants from other ethnic groups. But the relationship was found not to be statistically significant ($p>0.05$)

The relationship between FC use and the education level of brothel based FSWs. There were more users of FC among FSWs with secondary education and below 91 (35.4) than other FSWs with vocational and tertiary education. However, the relationship was found not to be statistically significant ($p>0.05$) (See Table 4.7)

Table 4.7: Relationship between Female condom use and Socio-demographic status(N=293)

Use of Female condom					
	Yes. (%)	**No. (%)**	**Total**	**X^2**	**P. value**
Location (LGA)					
IBN	34 (33.0)	69 (67.0)			
IBNW LGA	40 (48.2)	43 (51.8)	293	15.059	0.005
IBNE LGA	16 (37.2)	27 (62.8)			
IBSW LGA	8 (30.8)	18 (69.2)			
IBSE LGA	0 (0.0)	16 (100.0)			
Age					
<20	8 (53.3)	7 (46.7)			
21-25	27 (38.0)	44 (62.0)	293	3.173	0.529
26-30	50 (34.5)	95 (65.5)			
31-35	10 (37.0)	17 (63.0)			
>/=36	3(23.1)	10 (76.9)			
Religion					
Christianity	96 (33.5)	189 (63.5)		0.806	0.848
Islam	1 (33.5)	3 (69.7)	293		
Traditional	1 (25.0)	1 (75.0)			
Ethnicity					
Yoruba	3 (27.3)	8 (72.7)			
Igbo	33 (31.1)	73 (68.9)	293	3.152	0.369
Edo	53 (41.4)	75 (58.6)			
Hausa	8 (40.0)	12 (58.6)			
Education level					
Vocational	3 (75.0)	1 (25,0)			
Secondary and below	91(35.4)	188 (64.6)	293	2.741	0.254
Tertiary Education	4 (40.0)	6 (60.4)			

Findings from IDI

The qualitative data was collected using in-depth interview (IDI) guide (See Appendix 2) among four female sex workers who aware of female condom in four major Hotspots (Kara, Sango, Ekotedo and Abeokuta pack) in Ibadan metropolis. The interview was focused on the knowledge and experience of FSWs with female condom use with clients and regular partners.

4.7. Awareness and Knowledge of Female Condom

The focus of the in-depth interview was conducted to determine the level of awareness and knowledge of the female sex workers on female condom and its use with clients and regular partner(s).

Majority of the IDI participants have knowledge of female condom. While half of the participants attended seminars organized by non-governmental organization, other respondents had access to the female condom through friends and colleagues in sex work.

When asked what they know about female condom, some of the participants responded;

"I got it from an NGO that came. At PEPFAR clinic, You check the expiry date, then you tear from the tip. You can then squat or spread your legs on the bed to insert it into the vaginal. You guide the Penis at the point of entry"

"*well I have one that is like pant. I got it from a friend that came from Abroad. My friend from Belgium brought it for me. She said once I spread legs I will put it inside like this with finger into my something"*

Other participants interview have knowledge of female condom and similarly aware of the techniques of its usage.

Experience/Use of Female Condom

A good percentage of female sex workers interviewed have used the female condom. While one of the participant due to lack of trust and believe in the FC have not tried to use the female condom despite its availability and regular supply from friends. While she considered the process of insertion as irritating, others who tried the use of female condom confirm positive experience and satisfaction with the product.

The FSW who refuse to use the FC despite regular supply from friends stated thus

"*I have not tried it because of the way they say they use to insert it. I have not tested it because I don't believe in it. I don't really get the right way of using it.* "

According to the respondents that have used the female condom, they speak of benefits and satisfaction derived from the product.

"*you tear and insert it into the vaginal*"

"*well you tend to relax more with female condom and do many rounds"*

From the IDI conducted, majority participants have heard and used female condom with clients and regular partner(s) especially the female sex worker living with HIV who said she use condoms both male and female with Boyfriend and clients to prevent re-infection and other STIs.

"JJR (NGO). We have school of condom program here every Tuesdays of every week. They come to teach us how to use condoms and also give us free condoms"

"; I use condom with everybody to prevent re-infection and unwanted pregnancy."

From the in-depth interviews conducted, it was confirmed that the access to female condom through various NGOs and links from friends makes the device common among the FSWs, but other factors affecting usage is the client's response to the use of female condom. While respondent from the KARA area of Ibadan North LGA is of the opinion that the sex business is adversely affected among the girls she is coordinate in the region who will never stick to fair play their by snatching other girls customers with female condom bait while she indulge in no condom sex for more money which clients are always ready to bite due to their HIV status, other participant do not frequently use female condom because they are used to the male condom.

In their statement, opinion varies on continuous usage and more trials.

"the client are very funny, when they use it they don't want to use the male anymore. They expect everybody to use female condom. In a way, only the girls with female condom divert all the clients.

It also alter the behaviour of using the male condom because even the girl can do flesh in the face of money"

Respondent's intention to use the FC according to the above report is dependent on the ability to use the device correctly.

4.3 Summary of findings

Based on the findings made so far, the following is a presentation of the summary from each table.

1. Participants comprising two third of the population are having a full proof of knowledge about the female condom. But some of them could access it without the knowledge of its usage while some of them are perfect user of female condom. Have you heard of a female condom? 258 (88.1%) out of the population of 293 confirmed positive to the question raised.
2. The study revealed that the proportion of participant's among FSWs who has ever used the female condom. It was discovered that out of 51.5% of FSWs 27.1% has used female condom, 24.4% has never used female condom presumably have had of it.
3. It was also recorded that 106 participants are currently using FC which is the aggregate proportion of FSWs who uses the female condom in their daily activities.
4. It was revealed that the linkage of female condom leads to pregnancy, it is also used for pregnancy prevention and some of their client does not like it at all and drives away clients
5. Table 5 reveals that the FSWs who are currently not using the female condom intending to adopt the practice are facing some challenges in the process of adoption such as poor customer services says 8 (2.8%); some of their regular partner allow the use of female condom 39 (13.3%) said yes while 77 (26.3%) said no to use FC and they also experience difficulty inserting the female condom while some are perfect user of FC.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMEDATION

5.1 Socio-demographic characteristics of Respondents

The commercial Centre of Oyo state is Ibadan North local Government area of Ibadan metropolis. Most of the trading and other commercial activities take place within the LGA. It also accommodates people from different part of the country and several other large merchant stores and pavilion markets. Majority of the study participants were from Ibadan North local government area with a total of 112 (38.2%) in the distribution of female sex workers from 8 large brothels. The respondents were majorly Christians and belonged majorly to the Edo, Igbo and Delta ethnic group. This is obviously expected in a study of this nature. Among other studies, investigation showed that the Nigerian commercial sex workers were mostly under the ages of 30years, somewhat better educated than average for women of their age in the community, and usually from other ethnic groups than those of the local region (Orubuloye and Oguntimehin1999). They had migrated to new places in order to achieve anonymity. Nearly two-thirds reported themselves as single.

The secondary level of education was recorded among majority of respondents, while trading and vocational practices were adopted by large percentage of the female sex workers to compliment the wages from sexual practices which sometimes may dwindle. Number of Clients per day among the respondents range from 5 to 8 person per day for 68% of the study population, while 9 to 11 person per day measure 55 (18.8%) within the LGAs respectively.

The number of regular partners ranges among respondents as follows; 1 person measures 248 (84.6%) which was the majority of the population. Similar result was recorded in the study of Adeneye et al (2013) that female sex workers engage in a sexual relationship with a consistent partner (s). While some are engage to one or two regular partners, some are engage to as much as six boyfriends aside other clients that pays for sexual services on a daily basis.

Accommodation charges on weekly basis among the respondents as follows; 1000-2500(₦) per week 173 (59%); this includes protection money paid to the law enforcements agents through their leaders to prevent raid on brothel activities. Munoz et al (2010) recorded similar report from

their study carried out in Ibadan on Socio-structural context of female sex workers' vulnerability to HIV infection in Ibadan Nigeria. Female sex workers are mandated to make weekly payment through the group head to avoid disruption of business due to the illegality of sex work in the state. Laws governing prostitution and law enforcement authorities play a key role in the violence experienced by sex workers. In most countries, sex work is either illegal or has an ambiguous legal status (e.g. prostitution is not illegal, but procurement of sex workers and soliciting in public is illegal). Sex workers are frequently regarded as easy targets for harassment and violence for several reasons. FSWs are considered immoral and deserving of punishment. Criminalization of sex work contributes to an environment in which, violence against sex workers is tolerated, leaving them less likely to be protected from it.

Sexual services provided to clients on to the following has their desires appeals to the respondents as follows; vaginal sex 293 (100%), anal sex, oral sex, masturbation. All the study participants provide vaginal sex to clients, while 5% of the participants offer oral sex to clients and one of them offer anal sex to a paying client. Similarly, all the study participants offer vaginal sex to regular partners. Ankomah (2011) reported similar demographic characteristics; Participants in the study were female sex workers resident in brothels in the Port Harcourt, Benin, Ibadan, and Jos cities of Nigeria. The majority were Christians and single. The reported age ranged between 18 and 42 years, with the majority being in their twenties. This is in line with surveys that report the mean age of the Nigerian sex worker as being 27 years. Most of them had some secondary education, particularly those from Port Harcourt and Benin. The charge "per round of sex" varied, and depended on several indicators including level of sophistication, which could be based on whether it was a "high-class" or "low-class" brothel, or type of dress and general appearance.

5.2 Respondent's awareness and knowledge about the female condom

The result reveals low knowledge among the FSWs in Ibadan metropolis about the use of female condom, despite large percentage of awareness of female condom. The source of information varies according to the study participants. While some are beneficiary of NGOs effort to strengthen HIV prevention intervention, others were informed by peer and pharmacy store keepers in the neighbourhood. This goes in agreement with Kate Shannon (2014) whose study

explicitly examine the role of community organization in the reduction of HIV risk through increased condom use and lower HIV prevalence among female sex workers at the population level. Eluwa et al (2012) also recorded a significant high knowledge among brothel based female sex workers in Nigeria in a study carried out between 2007 and 2010 respectively. While 32.8% of the study participants had comprehensive knowledge through NGO intervention, 58.2% had information from peer-educator in the past years. Odu and Oluwasegun (2011) reported that 74.0% of the study participants have the correct knowledge that the use of condom can prevent the spread of HIV/AIDS.

Investment in the area of increasing the knowledge of vulnerable groups and most at risk population in the area of condom use for prevention of HIV/AIDS from spreading was discovered to have influence the level of study participants.

5.3 Proportion of FSWs with experience of female condom use

This study revealed that a high percentage of FSWs that are aware of FC have used female condom, while 24.4% has never used female condom and finally, 48.5% gave no response in the study carried out. Half of the IDI participants have made initial trial of female condom. Oluwasegun and Odu (2011) reported that Commercial Sex Workers lack skills to negotiate safe sex with men. National HIV/AIDS and Reproductive Survey (2003) reported that the rate of use of condom by Commercial Sex Workers is affected by the level of their education, knowledge and attitude. There is need to instill confidence in the FSWs to adopt the use of female condom. Only 24.9% of the study participants agreed to be able to negotiate condom with clients as well as regular partner(s)

5.4 The numbers of FSWs in Ibadan metropolis currently using the female condom.

The study discovered that 106 participants are currently using female condom, 79 out of the population says no to female condom and 108 gave no response in the study. This account for 7.2 (21) % who have access to regular supply of female condom from NGOs and friends, and 23.22% (68) who are comfortable visiting the pharmacy to procure female condom.

According to Brown (2003), while many of these women said they liked the female condom and would recommend it to others, they still preferred to use the male condom for sex work. This suggests that the female condom may be a useful back-up method for commercial sex workers

when men refuse to use the male condom. Ezire et al (2013) reported a low percentage in repeated use of female condom.

5.5 Factors that affects the usage of female condom among the Female Sex workers.

Only 3.4 % used female condom with clients in the last one month. Only 7.2% enjoy sex with condom, while only 7.5 find sex with female condom convenient. Larger percentage of the participants despite female condom availability through various local and international intervention for most at risk population (MARPs), find female condom difficult and inconvenient. While 26.6% of the FSWs believe clients cannot be trusted, 30% confirmed they don't know how to use the female condom correctly. 31.1% of the participant doesn't believe in the efficacy of the female condom and 42.7% of the FSWs said the female condom is not fast for business.

More than half of the study participants (53.9%) are of the opinion that rough clients can make wrong penetration which will predispose them to infection in the case of infected clients. Ezire (2013) argued the complexity of female condom as a factor preventing subsequent trials and the diffusion of the innovation. Other factors from his findings includes Perceived complexity (difficulty of insertion), the time it takes to complete the insertion process, discomfort experienced in the process of use like pains from the inner ring, fear of possibility that it might slip inside the vagina and intimidation as a result of the size of the Female Condom.

According to Valens and Ntaganira (2013), female condom use can prevent sexually transmitted infections, and unwanted pregnancies (77.9%, n=332). About 58.4% (n=246) agreed that the female condom is as effective as the male condom regarding the level of protection.

Adeneye et al. (2013) reported inconsistent condom use with regular/trusted partners (75.6%), A few (1.5%) respondents who were not using condoms with their clients at all were also not using with their regular/trusted sex partners. It was discovered that 41.3% of the study participants use female condom to keep sexual service going during their menstrual flow. The same percentage confirmed that they use female condom for clients with big genitalia who might not be comfortable with male condom. Eluwa (2012) had a similar result that reported significant progress in reducing the burden of HIV among FSWs in Nigeria, although low condom use with boyfriends continued to be a potential bridge between FSWs and the general population. But

suggested venue-based prevention programs are needed to improve safer sex practices among BB-FSWs.

5.6 Numbers of FSWs in Ibadan metropolis who are currently not using the female condom intending to adopt that practice

Majority of the participants who have never tried to use female condom are of the opinion that if they can access information on proper way of using the device through the NGOs while others want more product at reduced price. Palokinam .P (2013) reported in a study carried out in Togo that Sub-Saharan Africa recorded 71% of all new infections in 2011 in the world, three out of ten persons who have ever used female condoms intend to continue using it. This is reported in a study conducted in three Nigerian States was aimed at identifying the barriers to repeated and non-repeated use of female condom for society for family health (SFH) by Ezire (2013). Female sex workers (FSWs) are one of the most important groups propelling the epidemic in most countries in Africa. Indeed, even when prevalence rates are generally quite low in a country, they can be very high in this group. HIV prevalence among sex workers is 13.5 times higher than among other women and Inconsistent use of condoms was identified as associated with high risk factor for acquiring HIV. Orubuloye and Oguntimehin (1999) from their findings reported that Most of the sex workers were not willing to spend much money on the purchase of condoms while the few who were willing to buy at the market price settled for using each condom more than once. Previous experience elsewhere in Nigeria has shown that: (1) condom promotion constitutes an important part of any strategy for STD/HIV

prevention; (2) the acceptability of condoms by female sex workers can best be guaranteed when they are made affordable and available; (3) the women themselves see a clear health and economic reason for using them regularly; and (4) sex workers can be reached quite readily and are amenable to program interventions

Augustine Ankomah (2011) reported that most sex workers considered risk reduction and in particular condom use as far beyond their control or even unnecessary, as a result of their strong beliefs in fatalism and predestination. Therefore, he suggested one critical area of intervention is the need to assist sex workers to develop accurate means of assessing their personal vulnerability and self-appraisal of HIV-related risk.

5.7 Health Education Implications

Sequel to finding from the study, Sex workers perceived a number of benefits to the female condom, these include providing sexual services during monthly menstrual flow, the ability to have sex in any position without the device breaking or slipping, greater lubrication than the male condom, large percentage have not tried the female condom due to lack of information on how to use it. Given that the female condom could increase sex workers' overall number of protected sex acts and protect them from STIs (including HIV) and pregnancy, efforts to promote female condoms effectively to this specific target population are needed.

The proportion of respondents that are aware and knowledgeable attended seminars organized by non-governmental organization. The need to improve knowledge through result oriented strategies can only be achieved by adopting health education principles and theories. Deficits identified in knowledge and awareness can be addressed through review of MARPs training manual and training strategies. In improving on the knowledge of usage of female condom, some of the respondents should be allowed to do return demonstration to ensure improve knowledge in FC know how. Development of IEC will also improve the awareness level of FC among the FSWs in Oyo State. Improved social marketing strategy is required to improve the access and usage among the FSWs.

5.8 CONCLUSION

The study reveals that the participants comprising two third of the population are having a full proof of knowledge about the female condom. But some of them could access it without the knowledge of its usage while some of them are perfect user of female condom. 258 (88.1%) out of the population of 293are aware of female condom through the NGOs, peer educator and pharmacy stores.

The study also discovered that out of 51.5% of FSWs 27.1% has used female condom consistently, 24.4% tried using female condom once, 106 participants are currently using FC which is the aggregate proportion of FSWs who uses the female condom in their daily activities.

The FSWs who are currently not using the female condom intending to adopt the practice while facing some challenges in the process of adoption such as; It create poor customer services says

8 (2.8%); some of their regular partner allow the use of female condom 39 (13.3%) said yes while 77 (26.3%) said no to use FC and they also experience difficulty inserting the female condom while some are perfect user of FC.

The study also recorded female condom use with regular partners. Only 3.3 % of the FSWs recruited for the study use female condom while others confirmed they don't use any protection device with their regular partners. A large percentage of the participants of 109 (35.7%) still prefer male condom to female condom.

Therefore, for the diffusion of female condom among vulnerable groups, intensive female condom promotion, health education and female condom subsidy to minimize the cost of procuring female condom which cost more than the male which according to the respondent is cheaper, and easy to use by the commercial sex community.

Awareness on the female condom was high but very few respondents had skills to use it. Most respondents had positive attitudes towards the female condom regarding the prevention effectiveness against sexually transmitted infections and unwanted pregnancies. However, the FSWs were used to male condom considering the benefits and its simplicity to use and affordability. The practice of female condom was also very low among female sex worker, despite its availability through NGOs and pharmacy stores.

5.9 RECOMMEDATIONS

With consideration to this study, the following recommendation to policy makers and Non-governmental organizations designing intervention programs for most at risk populations (MARPs), with focus on brothel based female sex workers providing sexual services to clients and regular partner(s);

5.9.1 To the Policy Makers/ State Ministry of Health (SMOH)

1. The study recommend training on female condom use be carried out in subsequent intervention is carried out among FSWs in Oyo State irrespective of the age or year of experience in providing sexual services.
2. The study also recommends program monitoring and evaluation to ensure proper usage of female condom distributed to FSWs.
3. It is also recommend programs for the FSWs should be extended beyond the confines of Ibadan North LGA. This behooves the State ministry of Health to provide oversight for the NGOs in the State to consider other the FSWs in other Local Government Areas such as Ibadan South East, Ibadan North West, Iddo and Akinyele Local government area where FSWs residing in the region are yet to be reached with female condom messaging.
4. The study suggests to policy makers a proposal for female condom subsidy in order to enhance accessibility to FSWs who are not on the TSHIPs programs in Oyo state.

5.9.2 Non-governmental organizations

1. To the NGOs, the study suggests a review of training pattern for the female sex workers. Majority of the respondents do not check expiry date of the female condom before use while many did not mention penis guidance as a skill in using female condom. Apparently a return demonstration will be applicable after each of the training.
2. The study also recommends collaboration with the state ministry of health and other NGOs to facilitate higher coverage rather than repetition of program in one location.
3. The study recommend a follow up on the training programs to ascertain the change in preventive behaviour and increase in the use of the female condom supplied to the FSWs.

4. Some percentage of the study respondents had information from pharmacy stores. It is therefore important to provide the right information to the neighbouring pharmacy stores to enhance usage. Therefore, the study suggests collaboration with store keepers in capacity building and distribution of female condom.

5.9.3 Areas of further research

The following areas are open to researchers with special interest in vulnerable populations for finding;

1. Researchers can find out the Attitude of clients and regular partners to female condom use with female sex workers
2. Research is also needed to determine the Cost of living and its implication for alternative occupation to sex work.

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Appendix 1

Interviewer administered Questionnaire for Brothel based female sex workers

Knowledge, experience, and intention to use female condom by female sex workers in Ibadan metropolis

Introduction

Good morning to you, my name is Okunola Isaac Olumuyiwa, a student of department of health promotion and education, faculty of public health, college of medicine university of Ibadan. I implore your participation in this research which is intended to assess the Knowledge, experience, and intention to use female condom by female sex workers in Ibadan metropolis. I solicit your sincere answers to the questions in the instrument as your honest response will contribute to the academic community and the society in particular.

I guarantee the confidentiality of the participants and assure no compromise with identity and information provide.

Consent; Now that the study has been well explained to me and fully understand the content of the study process, I will be willing to take part in the study.

_____ _____

Signature/ thumbprint of participant Interview Date

LGANAME…….LOCATION…….SERIALNO;

SECTION A- SOCIO DEMOGRAPHIC DATA

Instruction; kindly provide all necessary information requested by ticking ( ) the alternative answer you think are appropriate in line with your views.

1. What is your age as at the last birthday ……(Actual age or year of birth)
2. Ethnic group 1. Yoruba { } 2. Hausa { } 3. Igbo { }
   4. Others (specify……..)

3. Religion 1. Christianity { } 2. Islam { } 3. Traditional { }
4. Others (specify……)

4. Highest level of Education 1. No formal education { } 2. Primary { }
3. Vocational { } 4.Secondary (completed) { }
5. Secondary (not completed) { } 6. Tertiary { }
1=NCE { } 2=OND { } 3=HND { } 4=Bachelors { }

5. Other Occupation 1. Trading { } 2. Artisan { } 3. Housewife { }
4. Menial Job { } 5. Self-employed { }

6. Marital status 1. Married { } 2. Widowed { } 3. Separated { }
4. Never married {} 5. Divorced { } (Ask Q7 if married)

7. (For married only) what type of marriage 1. Monogamy { } 2. Polygamy { }

8. How many clients do you provide services for in a day? _____

9. How many regular partners are you currently engaged to? _____

10. Can you list the sexual practices you provide to clients? 1. Vaginal sex { },2. Anal sex{ } 3. Oral sex { } 4. Masturbation { } (tick as apply)

11. Can you list the sexual practices you provide to regular partners? 1. Vaginal sex { }, 2. Anal sex { } 3. Oral sex { } 4. Masturbation { } (tick as apply)

12. How much do you collect per sexual episode _____

13. How much are you paying for your stay in the brothel per day _____

SECTION B: Awareness and Knowledge of Female Condom?

s/n	Variables		Yes	No
14	Have you heard of a female condom(if No skip to Q19,)			
15	If YES, through which source did you hear about Female condom?	Radio/ Television		
		NGO seminar		
		Sexual Partner		
		Newspapers/Magazine		
		Community leader		

		Pharmacy		
		Others		
16	Have you seen a female condom in the last 3 months?			
17	Do you know where to get a female condom?			
18	Did you know the steps in using the female condom?			

If yes, describe how to use it (don't read these)

Procedures	Tick
Check the expiry date	
Tear the sachet on the extreme end with zigzag	
Twist the smaller ring to form figure eight	
Lay on the bed or squat/raise a leg on the chair or stool to create an opening in the vaginal to insert the female condom	
Insert the female condom into the vaginal with the middle finger and cover the vaginal surface area with upper ring	
Guide the penis with your hand at the entry point.	

SECTION C: Prevalence of Female Condom Use?

19. Have you ever use female condom? Yes { } No { }

(If no, go to question 43)

20. Do you currently have female condom in your room? Yes { } No { }

21. Did you use female condom with clients in the last 3 month? Yes { } No { }

22. Did you use female condom with regular partner(s) in the last 3 month? Yes { } No { }

23. Do you know how to negotiate female condom with clients and partners? Yes { } No { }

SECTION D: Perception of users of Female Condom?

24. Do you know the importance of female condom use with clients and boyfriends? Yes { } No { } (Ifyes, state the reason……

25 Do you know the risk and dangers of not using female condoms? Yes { } No { }

(If yes, state your list all that you know……

……)

26. Do you also use female condom to prevent unwanted pregnancy? Yes { } No { }

27. Do you have access to female condom for daily use? Yes { } No { } Sometimes{ }

28. Are you comfortable anytime you visit stores for female condom purchase? Yes { } No { }

SECTION E: Experience of users of Female Condom?

s/n	Indicators	Yes	No	Sometimes
29	Did you use female condom with clients in the last one month?			
30	Did you use female condom with boyfriend(s) in the last one month?			
31	Do you prefer female condom to male condom? (If yes, state why…… …….)			
32	Do you enjoy using female condom with clients? (if yes, how often do you use FC…….)			
33	Is it convenient to use female condom with clients?			
34	Do you enjoy using female condom with boyfriend(s)?			
35	Is it convenient to use female condom with regular partner(s)			

36	Have you experienced leakage with female condoms?			

SECTION F: Factors affecting the use of Female Condom?

s/n	Variables	Yes	No	Sometimes
37	Are your colleague using female condom? (if No, state the reasons ……..... …….)			
38	Do you have unused condom do at the moment? (if yes, how many…….)			
39	Do clients reject female condom use? (if yes, state the reason……..)			
40	Does your regular partner allow the use of female condom? (if No, state the reason…… ……)			
41	Do you have difficulty inserting the female condom?			
42	Have you experience leakage with female condom?			

43. What factors affect your non usage of Female Condom?

	Factors	Yes	No
1	The size of the female condom		
2	The rings are confusing		
3	If it enters the vagina its might be difficult to remove		
4	The clients cannot be trusted with female condom		

5	The procedure is messy		
6	I don't know how to use it correctly		
7	It can leak and predispose me to infection		
8	I don't believe in it		
9	It is not common at neighbourhood shops like the male condom		
10	It is too oily		
11	The cost is too high		
12	It is not fast for sexual activities		
13	Rough clients can make wrong penetration into vagina		

- Others……

44. Where do you procure the last female condom? {1. NGO, 2. Pharmacy 3. Others…….....
45. What factors can make you use the female condom? ……
    ……
46. How much does it cost to purchase a female condom?……
47. How can female condom be promoted? 1. Free supply and information through NGOs, 2. More product and price reduction, 3. Others…….
    ……

Thank you for your time and cooperation to participate in this research.

Interviewer's guide

Introduction

Good morning to you, my name is Okunola Isaac Olumuyiwa, a student of department of health promotion and education, faculty of public health, college of medicine university of Ibadan. I implore your participation in this research which is intended to assess the Knowledge, experience, and intention to use female condom by female sex workers in Ibadan metropolis.

I solicit for your cooperation as we proceed with this discussion. Should you require more clarity or intend to add more information to the questions presented to you, do not hesitate to inform me before we conclude.

I guarantee the confidentiality of the participants and assure no compromise with identity and information provided.

IN-DEPTH INTERVIEW GUIDE

s/n	In-depth interview Question	Probing Question
1	What method of HIV prevention are you aware of?	How do protect yourself from sexually transmitted infections including HIV
2	Which of the methods have you adopted for the prevention of HIV and unwanted pregnancy?	Have been consistent with condom use Do you take any drugs for protection against STIs and Pregnancy
3	How many types of condoms have you used in the past three month?	What do you know about female condom? Which of the condoms do you prefer to use and please state reason for type of condom you are using?
4	Can you describe how the female condom is used?	Where did you learn how to use female condom?
5	What are the advantages of female condoms to the male condoms?	Does it include STIs prevention? How about re-use? Have experience leakage or break?

6	Where are the places where you purchase female condoms? • PMV • Clients • SMOH • NGOs	Have you receive female condom any organization? How convenient is it for you to go to the stores to purchase female condom.
7	What are your experience with female condom?	Convenience in the use? Enjoyment derived? Others?