KNOWLEDGE, ATTITUDE, PREVENTIVE PRACTICES AND TREATMENT-SEEKING BEHAVIOUR REGARDING SEXUALLY TRANSMITTED DISEASES AMONG COMMERCIAL SEX WORKERS IN IBADAN.

BY

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DEDICATION

TO ALL THE WOMEN AND GIRLS WHO WERE FORCED BY CONDITION OR OTHERWISE TO JOIN THE SEX INDUSTRY. MAY THE LORD ALMIGHTY GIVE YOU THE WILLPOWER AND THE KNOWHOW TO LEAVE THE PROFESSION. AMEN

ABSTRACT

Sexually Transmitted Diseases (STDs) constitute a major public health problem in both developed and developing countries of the world. In Nigeria, they rank among the top five infections for which people seek care and have an average prevalence rate of 9.3 per cent. Commercial sex workers (CSWs) constitute a 'high risk' group for STDs and a study of their knowledge, attitude, preventive practices and treatment-seeking behaviour is important for any STD control measure.

The present study was carried out in order to assess the knowledge, attitude, preventive practices and treatment-seeking behaviour of CSWs regarding STDs. The survey was conducted in the 5 local government areas of Ibadan municipality. Twenty-three of the 33 brothels identified in the municipality were randomly selected and all the consenting CSWs in these brothels so selected were interviewed. In all 295 CSWs were interviewed using a semi-structured questionnaire.

Results showed that majority of the CSWs were young adults with a mean age of 28.6 years. One hundred and fifty-seven (53.2%) of them were within the 20-29 year age group. Sixty-three (21.4%) had no formal education, 50 (16.9%) had completed primary school, 88 (29.8%) had some secondary school whilst 53 (18.0%) had completed secondary school. Their general knowledge of STDs was fair but there was poor knowledge of symptoms of STDs as 165 (54.2%) and 154 (42.2%) did not know that infection with gonorrhoea and HIV respectively may be asymptomatic; also 163 (55.3%) did not know that gonorrhoea can cause vaginal discharge. The respondents' attitude towards HIV/AIDS as a health problem was quite positive with 259 (87.8%) regarding it as an important health problem in Nigeria. However their perceived risk of contracting the infection was low with only 64 (21.7%) indicating that they could acquire the infection. Two hundred and sixty (91.2%) respondents engaged in some form of preventive practice including the use of condoms, drug prophylaxis and medical check up. In case respondents suspected they had STDs, 190 (64.4%) reportedly would go to hospital for medical advice whilst 19 (6.4%) would indulge in self-treatment. For the management of cases of STDs 167 (56.6%) would prefer care in private hospitals because of confidentiality and the individual attention enjoyed by clients. Based on these findings, recommendations were made. These include an aggressive STD education campaign through workshops and seminars for the commercial sex workers, improving the quality of services of STD treatment facilities (both public and private), as well as educating health workers on the importance of confidentiality in the care of STD patients.

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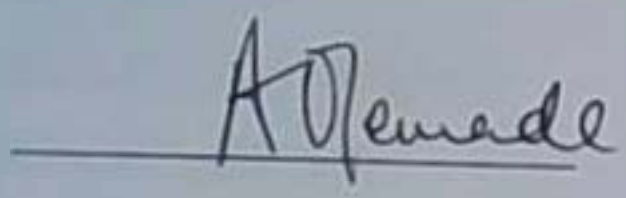
CERTIFICATION

I certify that I supervised this work carried out by Dr UMAR, USMAN SHEHU in the DEPARTMENT of PREVENTIVE and SOCIAL MEDICINE, COLLEGE OF MEDICINE, UNIVERSITY OF IBADAN, NIGERIA.



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CHAPTER ONE

INTRODUCTION

Sexually Transmitted Diseases (STDs) are infections that are specifically transmitted during sexual intercourse. Although various other infections may be transmitted during sexual intercourse, the commonly recognised STDs include viral infections [Herpes genitalis, Human Immunodeficiency Virus (HIV) infection/Acquired Immune deficiency syndrome (AIDS)], bacterial infections (Gonorrhoea, Venereal Syphilis, Soft chancre, Lymphogranuloma venerum (LGV) and Granuloma inguinale), and others including Candidiasis, Trichomoniasis and Non-gonococcal urethritis (Lucas and Gilles, 1990; Population Reports, 1993; Geddes et al, 1995).

The prevalence of STDs is on the increase (Geddes et al, 1995) with an average estimate of 685,000 people being infected every day with STDs. Every year there are about 250 million new cases, nearly as many as of malaria (Population Reports, 1993). The possible reasons for the increase include changing patterns of sexual behaviour, greater mobility of people and easier communication through books, the cinema and Television (Lucas and Gilles, 1990).

STDs have an average prevalence rate in Nigeria of 9.3% and are common to both sexes and all ages in the community with some sexually active groups at more risk than others (FMOH & SS, 1996). They are one of the top five infections for which people seek care. The National average prevalence rates for the various STDs are: Non Gonococcal Urethritis (NGU), 26.3%; post-pubertal gonorrhoea, 18.03%; trichomoniasis, 9.78%; candidiasis, 9.62%; chancroid, 4.28%; primary syphilis, 2.28%; genital warts, 1.87%; LGV, 1.47%; genital herpes, 2.2%. HIV seroprevalence in the general population is 1.76% and among commercial sex workers 22.5% (FMOH & SS, 1996). Although there are no data available on the prevalence of STDs among commercial sex workers, evidence from studies in other countries show that it is as high as 80.56% (Pal et al, 1994).

The arrival on the scene of HIV, which is sexually transmitted in about 80 percent of cases (Adler et al. 1996) has worsened the situation as HIV/AIDS is fatal and presently has no cure yet. The presence of STDs in a person is associated with an increased risk of HIV infection following exposure by a factor of three to five. Furthermore the risk of HIV infection from a single exposure is increased 10-300 fold in the presence of a genital ulcer (Adler et al, 1996).

The physical consequences and complications of STDs in women include acute symptoms such as genital ulcers and discharges, as well as long term effects on health which include chronic pain, pelvic inflammatory disease, infertility, ectopic pregnancies, puerperal sepsis and cervical cancer. In men, STDs may lead to epididymitis, urethral stricture and infertility. STDs during pregnancy are a danger to the unborn foetus as they can lead to complications such as congenital syphilis, ophthalmia neonatorum, and life-threatening pneumonia in the newborn baby (Lucas and Gilles, 1990; Population Reports, 1993; Geddes et al, 1995; FMOH & SS, 1996; Adler et al, 1996).

The social and economic consequences of STDs include social stigma and personal damage due to infertility and pregnancy wastage resulting in abusive behaviour, divorces and commercial sex work (Adler et al, 1996; Dallabeta et al, 1997). Social factors also affect the occurrence of STDs in the society. Such factors include cultural expectations of men and women with regards to sex, lower literacy levels among women which may restrict their access to health information and lower status of women which limits their ability to refuse or negotiate safer sex as well as increasing the possibility of sex work as a strategy for survival (Adler et al, 1996).

Many people with STDs do not seek care, and because of the stigma attached to them, many people seek care from providers who do not have the skill and the knowledge to treat these infections (Population Reports, 1993). The control of STDs is recognised as a global priority and

as part of the STD control measures, Special Treatment Clinics have been established in Nigeria. Such STD control programs place their emphasis on health education, increasing condom usage, altering health seeking behaviour and providing case management for STDs.

The Special Treatment Clinic (STC) of the University College Hospital, Ibadan was established in 1975 and has been run jointly by the departments of Microbiology and Preventive and Social Medicine. In recent years the number of patients attending the clinic has been steadily decreasing (Asuzu and Fawole, 1996) despite the global effort to control these diseases worldwide through health education and prompt and adequate treatment of cases. One of the possible reasons for the poor attendance was the introduction of user-fees which hitherto had been free. This will no doubt constitute a serious health problem considering the number of commercial sex workers, a high-risk group for STDs operating in many of the brothels in Ibadan. The proposed study therefore seeks to collect information on the health seeking behaviour of this group as well as their knowledge, attitude, beliefs and practices regarding STDs.

AIMS AND OBJECTIVES OF THE STUDY

GENERAL OBJECTIVE

To determine the knowledge, attitude, preventive practices and treatment- seeking behaviour of commercial sex workers in Ibadan with regards to STDs.

SPECIFIC OBJECTIVES

1. To assess the knowledge and attitude relating to STDs among commercial sex workers in Ibadan Municipality.
2. To study the Commercial sex workers' preventive practices with regards to STDs.

3. To determine the treatmentseeking behaviour of the commercial sex workers with regard to STDs.

4. To identify factors associated with the Commercial sex workers' preventive practices and treatment-seeking behaviour in Ibadan with regards to STDs.

5. Based on the findings from the above. to make recommendations for improved knowledge,preventive practices and treatment-seeking behaviour among commercial sex workers with regards to STDs including HIV/AIDS.

BACKGROUND TO THE STUDY

DESCRIPTION OF THE STUDY AREA

Ibadan city is the capital of Oyo State and the largest city in West Africa. Ibadan municipality is made up of five local governments which are Ibadan North, Ibadan North East, Ibadan Northwest, Ibadan Southeast and Ibadan South West local government areas. Akinyele, Egbeda, Ona-Ara, Oluyole, Ido and Lagelu Local Government Areas of Oyo State bound it. It has an estimated population of 1,459,813 million using the projected growth rate of 3% from the 1991 census. Most of its inhabitants are Yoruba, with other subgroups such as the Hausas and the Ibos.

The main occupation of the people is subsistence farming supplemented by petty trading. There are also n significant number of civil servants in the city. The major religions practiced in Ibadan are Islam, Christianity and Traditional religion.

Ibadan is a major commercial town and has the Premier University in Nigeria. People from all walks of life and different parts of Nigeria (and indeed the world) come to Ibadan to search for lucrative jobs and for commercial and academic reasons. The city has many hotels, motels, brothels and beer parlours.

The city is served by a tertiary hospital, secondary health care facilities and numerous primary health care centres including private hospitals and clinics which provide medical treatment for individuals with STDs. Traditional healers also provide care for people infected with STDs. There are however two Special Treatment Clinics specifically for treating STDs in the city, at the University College Hospital and the State Hospital, Adeoyo.

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SOURCES OF HEALTHCARE FOR STDs IN NIGERIA

The sources of STD care are:

1. Public Government Sector

   - Specialised, categorical or dermato-venereology clinics.
   - First level care, including emergency rooms, general outpatient departments, health centers, dispensaries, MCH and FP clinics, and village health posts.

2. Private Official Providers

   - Out Patient Departments of private hospitals
   - Private physicians including general practitioners and various specialists dermatologists, gynaecologists, urologists)
   - Mission hospitals

3. Private Unofficial Providers

   - Traditional healers who use alternative or herbal treatments.
   - Pharmacists
   - Untrained health personnel and
   - Street vendors.

The specialised STD treatment facilities provide high quality care and easier to manage, with on-site, in-house training opportunities for STD care providers. They are vertical in approach and have the disadvantage of being oriented more towards curative rather than preventive care It also has low accessibility due to the location (mostly urban), cost and stigmatization of STD clinic clients.

Integrating STD case management in primary health care increases coverage but may have

a poor quality of patient care.

The private sector providers provide care to a significant proportion of STD patients. They may be official (licensed) or unofficial (unlicensed). The care they provide are often inappropriate or inadequate and lack emphasis on preventive aspects.

CHAPTER TWO

LITERATURE REVIEW

THE NATURE AND EXTENT OF THE PROBLEM

MAGNITUDE OF THE PROBLEM

The prevalence of STDs is on the increase (Geddes et al, 1995). On the average, an estimated 685,000 people are infected everyday with STDs (Population Reports, 1993). Every year about 250-330 million new cases occur globally (Population Reports, 1993, Geddes et al, 1995; FMOH & SS, 1996) nearly as of malaria. Most of these were in Sub-Saharan Africa. STDs are one of the top five categories of diseases for which adults in developing countries seek health care (Technical Report Series No 810, 1991). In Europe there has been a decline in the incidence of some of the STDs especially gonorrhoea and syphilis (Arai et al, 1991). In the developing countries, STDs are second only to maternal mortality and morbidity as a cause of healthy life years lost among women of reproductive age group. They are responsible for about 15 percent of healthy life years lost in males aged 15 to 45 years of age (Adler et al, 1996, World Development Report, 1993). They therefore affect the more productive age groups in the developing world. It has been estimated that the incidence of curable STDs in Sub-Saharan Africa in the age group 15 to 49 years is as high as 11-35% (Guia et al, 1997). HIV infection, an incurable STD was estimated to have doubled in number from 10 million in 1990 to 25.5 million by mid-1996. More than 27 million people were infected with HIV since the beginning of the pandemic, 26 million (93%) of which were in the developing countries (AIDSCAP, 1996).

Sub-Saharan Africa represents about 60% of the world's total HIV infections and accounts

for almost 90% of the current 13.3 million HIV infections in adults and adolescents in Africa Over 90% of the 3 million HIV-infected infants born in the world have been born in Africa who typically develop AIDS and die within a few years.

AETIOLOGY OF SEXUALLY TRANSMITTED DISEASES

The causative agents of diseases that can be transmitted by sexual contact include viruses, bacteria, fungi, protozoa and arthropods.

The common bacterial causes of STDs are Neisseria gonorrhoeae, Chlamydia trachomatis, Treponema pallidum, Calymmatobacterium granulomatis, Ureaplasma urealyticum and Haemophilus ducreyi.

The viral causes of STDs include the Human Immunodeficiency viruses types I and II, Human T lymphotropic virus type I, Herpes simplex virus type 2, Human papilloma virus, Hepatitis B virus, Cytomegalovirus and Molluscum contagiosum virus - a pox virus

Trichomonas vaginalis is a protozoa which causes trichomoniasis while Candida albicans (a Fungus) causes vaginal thrush (candidiasis). The ectoparasite Sarcoptes scabiei causes scabies, so also the crab louse Phthirus pubis causes Pediculosis pubis

In addition there are many other pathogens in which sexual transmission is repeatedly described but not well defined or not the predominant mode e.g. Mycoplasma hominis. Gardnerella vaginalis and other vaginal bacteria, group B- Streptococci, Human T-lymphotrophic virus type II (HTLV II) and Herpes simplex virus type I.

On average, an estimated 685,000 people are infected everyday with an STD with an annual incidence of 250 million cases (Khanna et al, 1992). Of these Trichomonas vaginalis

infection accounts for about 120 million followed by genital chlamydia which is responsible for about 50 million new cases annually.

Many studies on incidence and prevalence of STDs have been carried out mostly among selected groups such as CSWs, STD clinic attenders, military, and antenatal clinic attenders Arya, (1980) estimated the prevalence of Neisseria gonorrhoeae in rural Uganda and reported an average prevalence of 4-10% among males and 2-22% among females among the study population

Studies of rural females in India (Bang, 1988) and Bangladesh (Wasserheit et al, 1989) however report a low prevalence of Neisseria gonorrhoea of 0.3% and 0.4% respectively. The reported prevalence of Trichomonas vaginalis was higher (12% and 5%) respectively. In addition Chlamydia trachomatis was reported among 2% of the rural Bangladesh females

Osoba (1972) studied the epidemiology of urethritis in Ibadan and reported a prevalence of 3% of Neisseria gonorrhoeae among antenatal patients

Gini et al (1989) conducted a six-year screening survey for syphilis among antenatal patients They reported a prevalence of 0 3% for syphilis Nsofor et al (1989) carried out a study of STDs among family planning clinic attenders in Zaria, Nigeria and reported a prevalence of N. gonorrhoeae similar to that by Osoba (3%) but a much higher prevalence of syphilis (18%) The prevalence of Trichomonas vaginalis was reported to be 5%. Asuzu and Fawole (1996) reviewed the STC services at the University College Hospital covering the period from 1989 through 1995 and reported on the three most common diseases seen among patients Non-specific urethritis (NSU)/Non-gonococcal urethritis (NGU)/Post-gonococcal urethritis (PGU) was the most common diagnosis among males, followed by

gonorrhoea in all the years covered. The diagnosis of NGU/NSU/PGU was reported to range from 22.8% to 32.0% of all male patients while that of gonorrhoea ranged from 9.8% to 21.6%. For female patients, candida ranked first and was responsible for 17.3% to 34.2%. Non specific vaginitis was second and was responsible for 10% to 27.2% of all female cases seen at the clinic. The third among both males and females vary and included herpes (4.5% to 6.1%), tinea cruris (4.5% to 6.3%), and genital warts (5.5%) among males, and gonorrhoea (12.3%), trichomoniasis (6% to 9.5%) and genital warts (8.2% to 9.0%).

STD prevalence among high-risk groups has been studied. Osoba (1972) reported a prevalence of Neisseria gonorrhoeae to be 17% and 33% among male and female patients attending the STD clinic in Ibadan and a prevalence of T. vaginalis of 19% and 4% among male and female STD clinic attenders respectively.

Various studies of commercial sex workers in Asia and Africa report a high prevalence of STDs among them (Khoo et al, 1977; D'Costa et al, 1985; Reeves et al. 1987, and Simonsen et al, 1990). The common STDs reported are Neisseria gonorrhoeae (7-50%), syphilis (7-32%), Chlamydia trachomatis (2-25%).

Human Immunodeficiency Virus (HIV) infection and Acquired Immune Deficiency Syndrome (AIDS) is increasing rapidly worldwide both in incidence and prevalence. The causative agents are HIV-1 and HIV-2. Both are human retroviruses. HIV-2 is primarily found in West Africa although HIV-2 infections have been confirmed in other parts of Africa such as Angola and Mozambique (AIDSCAP 1996). HIV-1 is found worldwide. HIV seroprevalence among CSWs in Africa varies from less than 10% in Somalia and Sudan to more than 80% in Cote 'd Ivoire (Way and Stanecki, 1993). HIV seroprevalence in Nigeria

have been reported (FMOH and SS, 1996) and the National average figures for various groups are antenatal clinic patients, 3.8%, long-distance drivers, 4%; tuberculosis patients, 8%, STD patients, 8.9%; and CSWs, 22.5%.

Williams et al (1989) studied the sexual practices and HIV infection of female prostitutes in Nigeria. The study was carried out in Cross River State and a total of one hundred and thirty three clients of prostitutes were tested for HIV-1 and HIV-2. They reported a 1.5% HIV seroprevalence. Since then it has been increased to 13.4% in the same State by 1992 from sentinel surveillance reports from the same State (Nig. Bull of Epid, 1992).

DISEASES CAUSING A GENITAL DISCHARGE

URETHRAL DISCHARGE IN MALES

The common causative agents of urethral discharge in males include N. gonorrhoea, C. trachomatis, U. urealyticum and T. vaginalis. About half of the cases of non-gonococcal urethritis are due to C. trachomatis. The rest are associated with Ureaplasma or mycoplasma, T. vaginalis and HSV. Co-infections are common especially of N. gonorrhoeae and C. trachomatis.

Gonorrhoea affects the male and female urogenital tract, conductive pharynx, rectum and synovium. It has an incubation period of 1-14 days (most symptoms develop within 2-5 days). The risk of infection after exposure is higher for females (50 to 90%) than males (20%) after a single exposure (Holmes et al, 1970, Platt et al, 1983). It is symptomless in up to 80% of women. The symptoms in women are include dysuria, spotting after sexual intercourse and lower abdominal pain. In men, gonorrhoea manifests as urethral discharge

of pus and pain on urination (Mabey and Richens, 1996; Population Reports, 1993)

The complications of gonorrhoea in women are endometritis salpingitis and bartholinitis Other complications include PID, ectopic pregnancies and sterility Gonorrhoeae in pregnancy has been associated with low birth weight, premature rupture of the membranes, chorioamnionitis, and postpartum upper genital infection and ophthalmia neonatorum in the new born child The complications in men include epididymitis, abscesses and fistulae, and ultimately urethral stricture (Mabey and Richens, 1996; Population Reports, 1983)

Chlamydia trachomatis is a common cause of STD in both developed and developing countries The serotypes causing genital tract infections are serotypes D-K It has an incubation period of 7 to 21 days and manifests as vaginal discharge, pain on urination, spotting after sexual intercourse and lower abdominal pain in women and urethral discharge and pain on urination in men It is often asymptomatic in both men and women Its complications include salpingitis, PID and perihepatitis It also causes premature rupture of membranes and preterm deliveries Sixty to seventy percent of infants exposed at birth develop respiratory infection, pneumonia or chlamydial ophthalmia

VAGINAL DISCHARGE IN WOMEN

The three commonest causes of vaginal discharge are Candida albicans, Trichomonas vaginalis and bacterial vaginosis (Mabey and Richens, 1996) Less common causes are Neisseria gonorrhoeae and Chlamydia trachomatis serotypes D-K which infect the endocervix rather than the vagina

Vulvovaginal candidiasis is caused by C albicans which is found in upto 50 percent of sexually active women, most of who are asymptomatic Factors which predispose to

candidiasis include pregnancy, broad spectrum antimicrobial therapy, oral contraceptive use, immunocompromise (e g HIV-related, corticosterod therapy, etc) and glycosuria The symptoms and signs of vulvovaginal candidiasis are pruritus vulvae and vaginal discharge with or without erythema and/or oedema of the vulva and vaginal walls

Trichomoniasis is caused by T. vaginalis, a protozoa which manifests as vaginal discharge, dyspareunia, pruritus vulvae and dysuria In males, it is usually asymptomatic and self limiting although it may occasionally give rise to urethritis

Bacterial vaginosis is a syndrome of foul smelling discharge associated with characteristic changes in the vaginal bacterial flora with an increase in the numbers of anaerobes, Gardnerella vaginalis and Mycoplasma hominis such that lactobacilli are no longer predominant. Its diagnosis depends on the identification of clue cells in a wet preparation or gram stain made from the vaginal discharge

DISEASES CAUSING GENITAL ULCERATION

Chancroid

This is caused by Haemophilus ducreyi and is the most common cause of genital ulceration in Africa (Mabey and Richens, 1996) accounting for more than 60 percent of genital ulcers seen It has a high prevalence among commercial sex workers in Africa and studies in Kenya have suggested that it significantly increases the risk of transmission of HIV via heterosexual contact, either by increasing infectivity, susceptibility or both (Plummer et al 1991) It has an incubation period of 3-7 days and causes soft, painful ulcers at the entrance of the vagina or around the anus in females and on any part of the male external genitalia There may be associated inguinal lymphadenopathy in 50 percent of cases which is often unilateral

Syphilis

Syphilis is caused by a spirochaete, Treponema pallidum. It has an incubation period of between 10 and 70-90 days with a median incubation period of 21 days (Mabey and Richens, 1996, Population Reports, 1993). Its natural history can be divided into 2 stages, Early and late syphilis. Early syphilis includes primary, secondary and early latent (when infectious) syphilis. In primary syphilis, a painless chancre develops at site of inoculation and heals spontaneously within a few weeks. The site of the chancre is commonly the penis in men and on the cervix or vulva in females. These may be an accompanying inguinal lymphadenopathy. Secondary syphilitic lesions appear weeks or months later with a rash, malaise, fever, general lymphadenopathy, hepatitis, arthritis and/or hair loss. In moist areas, of the body (axilla, perineum etc) condylomata lata lesions may be seen. Lesions of secondary syphilis resolve spontaneously after several weeks or months. Late syphilis is not infectious. It is characterised by Gummas in soft tissue or viscera, neurosyphilis and cardiovascular syphilis which if untreated may be fatal. Gummas appear after 1 to 20 years after initial infection. The risk of infection with syphilis is 30 to 60 percent after a single exposure.

Syphilis infection in pregnancy can lead to spontaneous abortion, still birth or congenital syphilis and neonatal death.

LYMPHOGRANULOMA VENERUM

This STD occurs mainly in the tropics. It is caused by Chlamydia trachomatis serotypes L1, L2 and L3 strains. It has an incubation period of 3-12 days for genital lesion and 10 to 30 days for inguinal bubo. The main symptom is an inguinal bubo which may be preceded by a small genital lesion. The complications of untreated LGV include fistula, chronic

inflammation of lymph nodes and enlargement of the genitalia and rectal stricture, and elephantiasis of the genitalia and lower limbs.

DONOVANOSIS

This STD is endemic in a few areas of the tropics notably South-East India, Papua New Guinea, Brazil, the Guyanas and Eastern parts of South Africa (Mabey and Richens, 1996). It is strongly associated with prostitution and low socio-economic status. It has a relatively lower risk of transmission to partners than the other STDs and has been shown to be a risk factor for HIV infection. Donovanosis is caused by *Calymmatobacterium granulomatis*, an intracellular encapsulated gram negative coccobacillus. It primarily affects the skin and manifests, after a 3-40 day incubation period as a small papule which ruptures to form a "beefy" lesion usually on the labia in women and on the prepuce or glans of the penis in men. Women may be asymptomatic. Its complications if untreated include erosion of the genitalia, blockage of the urethra, "frozen pelvis" and in rare cases haematogenous dissemination to lung, liver, spleen and bone. It may also lead to development of squamous carcinoma (Mabey and Richens, 1996, Population Reports, 1993).

GENITAL HERPES

Herpes simplex virus types 2 and 1 cause this viral infection. Characteristic clinical features of genital herpes are painful blister-like lesions which breakdown to form ulcers, crust over and then resolve. In women the sites involved are in and around vagina, around anus or on thighs. In men the lesions are on the penis. There may be associated systemic

symptoms in both men and women. About 50 percent of infected persons get recurrences which are less severe and of less duration than the initial lesions. The incubation period is 1 to 26 days with an average of 6-7 days. The complications of genital herpes include central nervous system involvement, aseptic meningitis, cervicitis, proctitis and disseminated herpes (Mabey and Richens, 1996, Population Reports, 1993). Genital herpes can be transmitted from mother to child leading to neonatal herpes. Hence lesions of the cervix at term is an indication for caesarian section.

GENITAL WARTS

This is caused by infection with the human papilloma virus (HPV). It is much more important in the developed than developing countries compared with the bacterial STDs. The lesions produced by HPV are soft fleshy, vascular condylomata acuminata. HPV are associated with neoplasia of the cervix and respiratory papillomas in children born to infected mothers.

HIV/AIDS

HIV infection/AIDS is caused by 2 related retroviruses, HIV-1 and HIV-2. HIV has an incubation period of 2 to 10 years or even longer. The viruses have special preference for the CD4 cells of the T-lymphocytes and affect the immune system of the body and render it susceptible to a host of opportunistic infections. The clinical spectrum of HIV infection is in 3 stages from the initial stage with a mononucleosis-type illness, followed by an intermediate stage during which the patient may asymptomatic or have some constitutional

symptoms and signs (the AIDS-related complex) through the late stage (full blown AIDS disease) during which the patient experiences opportunistic infections (e g Pneumocystis carinii pneumonia, atypical mycobacterial infections etc), malignancies (kaposis sarcoma) and neurological disease (AIDS Dementia complex) (Lucas and Gilles, 1990)

Interaction Between AIDS and STDs

Laga analysed various studies on HIV and STDs (Laga, 1992) and explained the relationship between the two as summarized below:

1. STDs may enhance sexual transmission of HIV by increasing susceptibility in HIV-negative persons or increasing infectivity in HIV-positive persons.
2. HIV infection and consequent immunodeficiency may alter the natural history, diagnosis, or response to treatment of other STDs
3. STDs may influence the natural history of HIV - for example, by accelerating progression to clinical disease.
4. HIV infection may increase susceptibility to other STDs

Cameron et al. (1989), demonstrated in a prospective study of male clients of female CSWs in Nairobi, that the acquisition of a genital ulcer in these men was a highly significant independent risk factor for HIV seroconversion. The study concluded that the presence of a genital ulcer in the women (adjusted odds ratio, 4.7) strongly increased the infectiousness to the male client. It also showed that lack of male circumcision increased susceptibility for HIV among male clients.

The role of non-ulcerative STDs and HIV transmission has also been studied in Kinshasa among 450 initially HIV negative CSWs. It was found out that there is a significant

association between seroconversion and the incidence of chlamydia gonorrhoea and trichomoniasis (Laga, 1992)

The non-ulcerative STDs are far more common than the genital ulcer Diseases and hence they may play a more significant role in HIV dynamics because of population attributable risk (Goeman et al, 1991).

HIV infection affects the hosts immune response mechanism and hence may theoretically affect the diagnosis and treatment of STDs

FACTORS AFFECTING THE TRANSMISSION AND PATTERN OF STDs AND HIV/AIDS

The factors that determine the epidemiology of STDs are behavioural and sociocultural Behavioural factors include sexual practices, partner choice, number of sexual partners' substance use (alcohol, drug) behaviours as well as health behaviours such as condom use and treatment seeking behaviours, etc Data from the developing world has shown that one in twenty adolescents contracts an STD each year and may be more likely to have multiple sexual partners and may have less access to STD care because of lack of awareness, lack of money or the restrictive policies of clinics

Sociocultural factors also affect the transmission and distribution of STDs Lack of money may restrict access to STD care It may also, independently or acting with other factors such as gender inequality and low status of women restrict women's ability to refuse ... sex as well as encouraging commercial sex work (Adler et al, 1996, Gina et al, ... of ... 1997) A high birth rate and a relatively large proportion of the population entering the

period of sexual activity favours an increased STD incidence and prevalence (Brunham and Embree, 1992; Gina et al, 1997).

Migration, rapid urbanisation and changing of social norms leads to an alteration of sexual behaviour and encourages commercial sex. These factors, along with social upheavals and wars, the absence of adequate STD care services and the impact of HIV on STD epidemiology all combine to exacerbate the STD problem in developing countries (Laga, 1994).

The healthcare-seeking behaviour of the community members affects the success or otherwise of STD control programs. Delay in seeking treatment for STDs has a significant impact on their spread since the longer a person is infected, the more opportunities there are for transmitting the infection to others (Gina et al, 1997).

COMPLICATIONS AND CONSEQUENCES

OF SEXUALLY TRANSMITTED DISEASES

I HEALTH CONSEQUENCES

These include pelvic inflammatory disease (PID) and infertility, urethral strictures, adverse neonatal and pregnancy outcomes and cervical cancer (Adler et al, 1996; Dallabeta et al. 1997).

PID is the most common reason for admission to gynaecological wards (Muir and Belsey, 1980) and its sequelae include infertility, ectopic pregnancy with subsequent maternal mortality, chronic pelvic pain, an increased risk of subsequent pelvic infections and a higher risk of hysterectomy.

Urethral strictures affects one in seven males with gonorrhoea and increases the risk of urological surgery among those affected.

Syphilis during pregnancy can affect the fetus leading to congenital syphilis. N. gonorrhoea and C. trachomatis infection cause increased morbidity in the neonate.

II SOCIAL CONSEQUENCES

Social stigmatization and personal damage of people with STDs may result in divorce or commercial sex work. Infertility (a common complication of PID) may lead to rejection of wives by husbands, spousal conflicts and can undermine the trust between couples leading to emotional and psychological stress. There is also the risk of violence and abusive behaviour or retribution as a result of discovering an STD.

III ECONOMIC CONSEQUENCES

These include both direct and indirect costs. The cost of diagnosing and treating STDs place an enormous burden on the national health-care budgets. STDs also lead to increased number of days of productive life lost.

STD KNOWLEDGE, ATTITUDE, PREVENTIVE PRACTICES AND TREATMENT SEEKING BEHAVIOURS

The level of knowledge and attitude of people towards STDs and HIV/AIDS has an influence on their STD care seeking behaviour and practices.

In a survey of sex workers and clients in Bali, Indonesia in 1994, it was observed that only 51 percent of women who were working in the low price brothels had heard of AIDS, while almost all of the women in the high price and bungalow type brothels had heard of AIDS. For those who had heard of AIDS, the mean knowledge score ranged from 8.3 to 11.6 out of a possible 19. The study noted that knowledge was particularly weak about the symptoms of AIDS and that only a quarter of the women thought that an infected person could appear healthy. Many thought casual transmission through shaking hands, eating from the same plate, urinating in the same place or exchanging clothing was possible. Over one third of the women were unsure about material transmission (Ford et al, 1994).

Another study on AIDS awareness and sexual behaviour in 1995 among bar girls in Malawi (Kishindo, 1995) reported that all the bar girls studied were aware that AIDS is primarily transmitted through sexual intercourse, that it has no cure and that it can be prevented by using condoms during sexual intercourse. However, only 23.3% of the bar girls

had ever used a condom during sexual intercourse despite the fact that condoms were distributed free from the hospitals. This low condom use was attributed to clients negative attitude, towards as well as the bar girls own misconceptions about the condom (e.g. condom can slip and lodge in a woman's uterus, condoms causes vaginal itching, etc). The belief that the particular individual was not in imminent danger of catching an STD, including AIDS was another reason for the low condom use.

A survey of sexually transmitted diseases and condom interventions among CSWs and their clients was carried out in Cross River State in Nigeria (Williams, 1995). The CSWs and clients were asked to list which STDs they knew. Gonorrhoea was the most frequently mention (97% of women and 96% of men), followed by AIDS (17% of women; 34% of men. Only 14% of prostitutes and 29% of their clients listed syphilis, 5% of prostitutes and 17% of clients listed chancroid, and none spontaneously listed herpes or chlamydia. 96% of the CSWs reported that they examined their customers for gonorrhoea or discharge. The study, which was an intervention study involving health education, condom promotion and improved access to STD services demonstrated a significant increase in knowledge of sexual and needle transmission of HIV/AIDS among both the CSWs and clients after the intervention. The means of protection from AIDS was also explored and 88% of sex workers and 59% of clients mentioned condom use as a method of prevention.

Mosanmib L. J. et al studied the patterns of sexual behaviour and condom use among adult men and women in Ile-Ife, Nigeria. They reported that the most frequently mentioned STDs were gonorrhoea (males, 95.7%, females 69.3%), AIDS (males, 71.6%, females, 65.2%), syphilis (males, 41.9%, females 21.1%) and "magun" (males, 43.7%, females,

16.1%). There was poor knowledge about trichomoniasis, chlamydia, candidiasis, herpes and genital warts among both males and females. While AIDS awareness, was high, many misconceptions on HIV transmission were reported (Messersmith et al, 1995).

ATTITUDES TOWARDS STDs AND HIV/AIDS

Attitudes of people towards STD and HIV/AIDS patients is generally that of isolation and social stigmatisation for example a high school student with HIV infection was barred from attending school in the United States in 1985 and had to remain at home, deprived of the company of friends and the hope of education (TIME, 1985).

Adelekan et al studied the knowledge about, and attitude of health workers towards AIDS and AIDS patients in Ilorin, Nigeria and reported that about one in three nurses would hesitate to treat a person with AIDS while half would not participate in birth delivery. They also observed that about a quarter of doctors would hesitate to treat a person with AIDS while one in three would not carry out surgery despite adequate precautions (Adelekan et al, 1995).

A similar study carried out in Japan among dental health care workers (Kitaura et al, 1997) reported a hesitant attitude among them about performing dental operations on HIV positive patients - despite adequate knowledge about HIV/AIDS. A study of the pattern of condom use among black males in the USA (Johnson et al, 1992) categorised them according to their reported condom use into three categories, those that always use condoms, those with high intention to use condoms but are not using them and those not using condoms and have low intentions of using them. They found out that the low intenders reported experiences

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with anal intercourse and sex with a prostitute, but considered themselves at lower risk for AIDS than did their high intender or steady-user counterparts

PREVENTIVE PRACTICES AND TREATMENT SEEKING BEHAVIOUR

Health-seeking behaviour is influenced by factors such as attitude towards STDs (and HIV/AIDS) and sex and accessibility nnd quality of care at health care facilities

Studies in India and East and Central Africa (Nkya et al, 1991; Nzilla et al, 1991 Pal et al, 1994) reported a high prevalence of HIV nnd other STDs among commercial sex workers and that despite good knowledge about STDs (and AIDS), the reported preventive behaviour was poor Only 12 percent of them used condoms regularly while greater than 50 percent of the CSWs reported regular use and 38 percent reported doing nothing specific to prevent STDs

Williams and co-workers in their study of AIDS awareness among prostitutes in Nigeria observed that 35 7 percent of CSWs reported doing nothing to protect themselves from STDs/HIV, 17.4 percent reported the use of antibiotics/injections to protect themselves while 7 8 percent go for medical check-ups as a protective measure (Williams et al, 1989)

Several characteristics of STD care facilities may act as deterrents to their use by patients These include long travel distances and waiting lines, stigma and user fees

Asuzu et al (1992, 1994) studied the treatment-seeking patterns for STDs in Maiduguri and Ilorin in Nigeria They reported an estimated crude annual incidence of STDs to be 7 4 percent and 6 8 percent in the two cities respectively They also reported that less than 1 percent of the estimated cases were seen at the Special Treatment Clinics for STDs, the vast

majority being treated at patent medicine store, pharmacies, by herbalists and self treatment.

Moses and colleagues (1994) reported interviews with patients attending urban health centres in Kenya; 27 percent had sought treatment elsewhere earlier in the same episode of an STD, and the other sources included other public sector clinics (37.7 percent), private clinics (38.6 percent); and the informal sector (23.7 percent). The informal sector included pharmacists, traditional practitioners and drug peddlers. The authors reported that the main reasons given for having sought care in the private medical or the informal sectors was convenience of access and perceived greater privacy" (Moses et al, 1994; 1949).

A study involving a non-clinic sample of sex workers in Ethiopia found that the majority of the women (97.7 percent) had sought medical care in the public or private sector at some point, but at the time of the interview almost half the women reported having symptoms, most of them for one week or more, and had not sought care (Desta et al, 1990).

A study of the impact of user fees on attendance at a referral centre for STDs in Kenya revealed that the adjusted mean monthly attendance of men decreased significantly to 40 percent of that before fees were levied. Attendance rose after user-charges were stopped but reached only 64 percent of the pre-user charge level. For women, the adjusted mean monthly attendance during the user-charge period was reduced significantly to 65 percent of the pre-user charge level. Mean monthly attendance by women rose in the post-user-charge period to 22 percent above the pre-user charge level. There was no evidence of an increase in attendance over the course of the user-charge period among either men or women (Moses et al, 1992).

A review of the Special Treatment Clinic attendance at the University College Hospital, Ibadan showed a declining trend in patient attendance since the introduction of user-fees at the clinic (Asuzu and Fawole, 1996).

CHAPTER THREE

METHODOLOGY

RESEARCH DESIGN

The main purpose of this study was to assess the knowledge, attitude, preventive practices and treatment-seeking behaviour of commercial sex workers in Ibadan municipality. The study is therefore a purely descriptive, exploratory study. Because of the nature of the research (exploratory and non-experimental), no attempt was made to control the variables but necessary steps were taken to ensure that the sampling technique used was representative of the entire study population.

SAMPLE SIZE

The minimum sample size for the survey was 237 commercial sex workers based on the sample size calculation given below:

$$N = Z\alpha^2 P(1-P)/d^2$$

where N = required sample size

P = proportion of prostitutes with STDs = 0.81

$Z\alpha^2$ = level of significance = 1.96

d = precision = 5%

$$N = (1.96)^2 (0.81)(1-0.81)/(0.05)^2$$

$$= 237$$

For this study, a sample of 300 commercial sex workers was targeted.

SAMPLING PROCEDURE

A multi-stage sampling technique was used. In the first stage, a list of all the brothels and their locations in Ibadan municipality was prepared with the help of the local people around the commercial districts of the city as well as the owners/proprietors of the brothels. Ibadan municipality (the study area) is made up of 5 local government areas (LGAs) which are Ibadan North, Ibadan North East, Ibadan North West, Ibadan South West and Ibadan South East LGAs. There were a total of 34 brothels in the study area. Of these, 10 were in Ibadan North, 7 in Ibadan North West, 6 in Ibadan North East, 9 in Ibadan South East and 2 in Ibadan South West LGAs. An estimate of the number of commercial sex workers (CSWs) was computed with the help of the managers of the brothels and there were approximately 430 CSWs in the 34 brothels. The required size for the survey was 300 which is approximately 70 percent of the total CSWs in Ibadan municipality.

In the second stage, 70 percent of the brothels were randomly selected from each LGA and thus 7 brothels were selected from Ibadan North LGA, 5 from Ibadan North West, 4 from Ibadan North East, 1 from Ibadan South West and 6 from Ibadan South East LGA. All together, 23 brothels were selected out of the total of 34 brothels in the study area. All the CSWs in the selected brothels who had been in the profession for at least one month and who gave their informed consent were included in the survey.

INSTRUMENT AND METHOD OF DATA COLLECTION

A questionnaire (Appendix A) was used as an instrument to collect data in order to elicit information on the following:

a) The demographic characteristics of the commercial sex workers such as their age, sex, level of education, ethnic group etc.

b) The knowledge of the CSWs on STDs and HIV/AIDS.

c) The attitude of CSWs towards STDs and HIV/AIDS.

d) The preventive and treatment-seeking behaviours of the CSWs.

METHOD

Four interviewers were recruited and trained on how to administer the questionnaires for one week. They and the questionnaires were pretested at a brothel in Sasha which is situated at Akinyele LGA outside Ibadan municipality (the study area) but has similar characteristics. Twelve questionnaires were administered during the pretest. It took an average of about 30 to 40 minutes to administer a questionnaire.

A letter of introduction (Appendix B) was taken to the selected brothels and an appointment was fixed for the date and time of the survey. This was done with the manager and "chairman" of the brothels. The aims of the study was fully explained to the CSWs and they were assured of confidentiality by letting them be aware that their names will not be taken, no tapes or cameras will be used and that the study has nothing to do with the police or authorities and as such will not pose any threat or risk to them or their jobs. As an incentive a health talk on the common STDs and how they can protect themselves was given

to them after the survey. Also they were offered free consultation for those feeling unwell and some condoms to all of them. One brothel in Ibadan North-East LGA refused to give consent except if their demand of ₦200 and a packet of condoms for each CSW was met. After three failed attempts to get their informed consent, another brothel from the LGA was randomly selected and included in the study

VALIDITY

To ensure validity, repeat questions were included in the questionnaire. These are.

In question 16 concerning HIV?AIDS, statement 6 was checked by statement 7 viz:

Statement 6: HIV/AIDS has no cure at present

Yes/No/Don't know

Statement 7: HIV/AIDS can be cured with antibiotics.

Yes/No/Don't know

Also Question 19 a checks question 18a viz.

Question 24a: Do you think you can get HIV/AIDS?

1. Yes

2. No (go to Question 25)

24b: If Yes, what do you do? Please mention them

Question 25: Do you do anything to avoid getting sexually transmitted diseases (and AIDS)?

1. Yes

2. No (go to Question 26)

25b If Yes, what do you do? Please mention them

Similarly Questions 29 and 30b check each other concerning condom use.

RELIABILITY

For reliability, the respondents were made to fully understand that if there is any question they don't feel like responding to, they should not do so rather than giving inappropriate or false responses

Confidentiality as well as the importance of correct responses was stressed to them The fact that their names were not asked made the CSWs feel more at ease when responding to the questions

DATA ANALYSIS

Data collected was fed into a computer and analysed using the EPI-INFO version 6 04 program The descriptive statistics e g frequency description, tests of significance such as the Chi-square test, the students t-test and the analysis of variance (ANOVA) were calculated and the findings presented as appropriate

The CSWs' correct responses to 22 questions regarding gonorrhoea and HIV/AIDS were used to test associations between their mean knowledge score of STDs' and other factors Each correct response was awarded 1 mark while incorrect and no responses were awarded 0 mark, the maximum obtainable score being 22 and the minimum being 0

SCOPE AND LIMITATIONS OF THE STUDY

This research is limited only to the knowledge, attitude and practices of the CSWs in Ibadan municipality concerning STDs. Although one could have observed the risk behaviours on STDs, this study focussed only on reported practices.

The study was limited to CSWs in brothels only. Other categories of CSWs (e.g. call girls, street girls, etc) were not included in the study.

Only 295 CSWs were interviewed which is slightly less than the target size of the study. However it is expected that this will not significantly affect the results of the study as it has still included far more than the minimum sample size of 237 required for the study.

CHAPTER FOUR

RESULTS

The findings of the study are presented in four parts; Section A describes the demographic characteristics of the respondents; Section B deals with the respondents knowledge of, and attitude toward STDs; Section C deals with the respondents' preventive practices with regards STDs while Section D addresses the treatment Seeking behaviour of the commercial sex workers.

SECTION A

DEMOGRAPHIC CHARACTERISTICS

Age Distribution:

In all, 295 commercial sex workers were included in the study and their age distribution is shown in table 1. Twenty two (7.5%) were in the 10-19 year age group, 157 (53.2%) in the 20-29 year age group and 24 (8.1%) in the 40-49 year age group.

Marital Status:

Table 2 shows that 112 (37.9%) of the CSWs were single, 71 (24.1%) separated, 79 (26.8) divorced and 23 (7.8%) widowed. Only 8 (2.7%) were married.

Table 1

Age Distribution of the Respondents

Age (In years)	Frequency	Percentage (%)
10-19	22	7.5
20-29	157	53.2
30-39	82	27.8
40-49	24	8.1
50 and above	4	1.4
No response	6	2.0
Total	295	100.0

Table 2
Marital Status of the Commercial Sex Workers

Marital Status	Frequency	Percentage
Single	112	37.9
Married	8	2.7
Separated	71	24.1
Divorced	79	26.8
Widowed	23	7.8
No Response	2	0.7
Total	295	100%

Religion:

Of the 295 respondents, 259 (89.0%) were Christians, 23 (7.9%) Moslems and 3 (1.0%) practiced traditional religion. six (2.1%) had no religious affiliation (Table 3).

Ethnic Group:

Table 4 shows the ethnic group distribution of the respondents. Nine (3.0%) were Hausas, 88 (29.8%) Igbos, 24 (8.1%) Yoruba and 172 (58.3%) belonged to the Bini/Esan/Urhobo ethnic groups.

Table 3
Respondents' Religious Affiliation

Religion	Frequency	Percentage
Christian	259	89.0
Muslim	23	7.9
Separated	3	1.0
Divorced	6	2.1
No Response	4	1.4
Total	295	100%

Table 4

Respondents According to their Ethnic Group

Ethnic Group	Frequency	Percentage
Hausa	9	3.0
Igbo	88	29.8
Yoruba	24	8.1
Bini/Esan/Urhobo	172	58.3
No Response	2	0.8
Total	295	100%

Level of education:

Sixty three (21.4%) of the respondents had no formal education 26 (8.8%) had some primary education; 50 (16.9%) had completed primary school; 88 (29.8%) had some secondary school while 53 (18.0%) had completed secondary school; 13 (4.4%) had post-secondary education (Table 5).

Table 5

Respondents' Level of Highest Educational Attainment

Level of Education	Frequency	Percentage	Cum. Percentage
No formal education	63	21.4	21.4
Some primary school	26	8.8	30.2
Complete primary school	50	16.9	47.1
Some secondary school	88	29.8	76.9
Complete secondary school	53	18.0	94.9
Post secondary school	13	4.4	99.3
No Response	2	0.7	100.0
Total	295	100%	

Occupation: One hundred and fourteen (38.6%) of the 295 CSWs were engaged in commercial sex work only, 175 (59.3%) were found to be engaged in other occupations in addition to commercial sex work. These include petty trading, fashion designing /tailoring / sewing, and hairdressing (Table 6).

Respondents' number of children:

One hundred and two (34.6%) respondents had no children while 193 (65.4%) had children of which 101 (34.2%) had 1 to 2 children, 61 (20.7%) had 3-4 children and 31(10.5%) had five children or more (Table 7).

Table 6

Respondents' Other Occupation in Addition to Commercial Sex Work

Type of work	Frequency	Percentage
Commercial sex work only	114	38.6
Petty Trading	61	20.7
Fashion Designing	42	14.2
Hair dressing	58	19.7
Others	14	4.7
No Response	6	2.1
Total	295	100%

Table 7

Respondents' Number of Children

No of Children	Frequency	Percentage	Cum. Percentage
0	102	34.6	34.6
1 - 2	101	34.2	68.8
3 - 4	61	20.7	89.5
5 and above	31	10.5	100
Total	295	100%	

Respondents' Duration in the Profession:

The duration of the respondents in commercial sex work in Ibadan varies from 1 to 96 months with a mean of 12 months. Table 8 shows that 211 (71.5%) of the respondents had been in the profession for 1-12 months; 40 (13.6%) for 12-24 months and 11 (5.8%) for 25-36 months. Two each had been in the profession for between 73-84 months and 85-96 months.

Respondents Reason for being in Commercial Sex Work:

Sixty four (21.7%) commercial sex workers were in the profession primarily because they needed money to start business; 60 (20.3%) because they had no money to feed. 45 (15.2%) said they were in the profession because they could not get any other job. Nine (3.1%). 8 (2.7%) and 3 (1.0%) reported that they were in the profession because of peer group effect, widowhood and 'tricking' into commercial sex work respectively.

Table 8

Respondents Duration in the Profession

Duration (In months)	Frequency	Percentage	Cum. Percentage
1 - 12	211	71.5	71.5
13 - 24	40	13.6	85.1
25 - 36	17	5.8	90.9
37 - 48	6	2.0	92.9
49 - 60	1	0.3	93.2
61 - 72	1	0.3	93.5
73 - 84	2	0.7	94.2
85 - 96	2	0.7	94.9
No Response	2	5.1	100.00
Total	295	100.00	

37

Table 9

Respondents' Reasons for being in Commercial Sex Work

Reason	Frequency	Percentage
Need money to start business	64	21.7
Need money to feed	60	20.3
Can't get any other job	45	15.2
Abandoned by husband	30	10.2
Peer Group Effect	9	3.0
Widowed	8	2.7
Tricked into Commercial Sex Work	3	1.0
Combination of the above	69	23.4
Other	4	1.4
No response	2	0.7
Total	295	100

SECTION B

KNOWLEDGE, ATTITUDE AND BELIEFS RELATING TO STDs AMONG THE RESPONDENTS

Awareness of STDs

When asked to mention the STDs that they considered important, Ninety seven (32.9%) mentioned gonorrhoea alone. 75 (25.4%) gonorrhoea and AIDS. 35 (11.9%) gonorrhoea and syphilis and 43 (14.6%) gonorrhoea, AIDS and syphilis. One (0.3%) respondent mentioned AIDS only while 18 (6.10%) mentioned other STDs in addition to gonorrhoea AIDS or syphilis. Twenty six (8.8%) respondents did not mention any STD (Table 10).

Table 9

Respondents' Reasons for being in Commercial Sex Work

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Peer Group Effect	9	3.0
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When specifically asked whether they have ever heard of HIV/AIDS, 270(91.5%) said they had whilst 15(5.1%) had not. 10(3.4%) did not respond (Table 11).

Table 10

Awareness of STDs Among Respondents

Disease	Frequency	Percentage
Gonorrhea only	97	32.9
AIDS only	1	0.3
Gonorrhea and AIDS only	75	25.4
Gonorrhea and Syphilis only	35	11.9
Gonorrhea, AIDS and Syphilis	43	14.6
Gonorrhea, AIDS or Syphilis and others	18	6.1
None	26	8.8
Total	295	100.0

Table 11

Respondents who have ever heard about HIV/AIDS

Ever heard about HIV/AIDS?	Frequency	Percentage (%)
Yes	270	91.5
No	15	5.1
No response	10	3.4
Total	295	100.0

Table 12 shows the respondents' source of information about HIV/AIDS. One hundred and two (37.2%) got their information from media (radio, television and newspapers), 43 (15.9%) from health workers and 33 (12.2%) from colleagues and friends. Thirty six (13.3%) were informed through "others" which included performed groups and posters (Table 12).

One hundred and twenty seven (43.1%) respondents had ever seen a patient suffering from

HIV/AIDS. Ninety (70.9%) saw them on television and 13 (10.2%) at home/village and 6 (4.7%) in the hospital (Table 13).

Table 12

Respondents Source of Information about HIV/AIDS

Source of Information	Frequency	Percentage
Radio/TV/Newspapers	102	37.8
Health Workers	43	15.9
Colleagues/Friends	33	12.2
Others	36	13.3
No response	3	1.1
Combination of the above	53	19.6
Total	270	100.0

Table 13

Place where Respondents saw a HIV/AIDS Patient (N = 127)

Place	Frequency	Percentage
On Television	90	70.9
At Home/Village	13	10.2
In a Hospital	6	4.2
At a Brothel	1	0.8
Television and hospital	2	1.6
Others	15	11.8
Total	127	100.0

Knowledge of the Symptoms and Signs of STDs:

Table 14 shows the respondent's knowledge of the symptoms and signs of gonorrhoea and HIV/AIDS. One hundred and sixty-three (56.3%) of the respondents correctly knew that gonorrhoea causes vaginal discharge while thirty-six (12.2%) said it is not a cause of vaginal discharge. Ninety one (31.4%) of the respondents did not know whether gonorrhoea enuses vaginal discharge or not. Two hundred and sixty five (89.8%) of the respondents said gonorrhoea was a cause of penile discharge while 11(3.7%) said no. Concerning HIV/AIDS as a cause of vaginal discharge 223 (75.6%) had no knowledge, 34 (11.5%) said that it does not cause vaginal discharge. Twenty three (7.8%) said HIV/AIDS causes vaginal discharge Similarly only 60(20.3%) of the respondents knew that HIV/AIDS does not cause penile discharge. Twenty six (8.8%) believed that HIV/AIDs causes penile discharge while 188 (63.7%) respondents were not sure whether HIV/AIDS causes penile discharge or not. One hundred and thirty eight (46.8%) of the respondents knew gonorrhoea as a cause of sores/wounds on the private part whilst 53 (18.0%) did not know. Thirty four (11.5%) of the respondents said that HIV/AIDS causes genital sores/woundswhilst 39(13.2%) did not think so. Two hundred and five (69.5%) had noknowledge of this.

Two hundred and twenty three (75.6%) respondents knew that HIV/AIDS leads to weight loss and thinning whilst 49 (16.6%) did not. The findings also indicated that 141 (47.8%) respondents agreed that HIV-infected persons may not know that they were infected, 62 (21.0%) said infected people will know whilst 79 (26.8%) had no idea.

Concerning gonorrhoea and weight loss. 162 (54.9%) said that it leads to weight loss, 53 (18.0%) did not think so. One hundred and thirty five (45.8%) responded that persons infected with gonorrhea may not know that they were infected.

Table 14

Commercial Sex Workers' Knowledge of the Symptoms of Gonorrhoea and HIV/AIDS

STATEMENT	GONORRHOEA				HIV/AIDS			
	Yes	No	DK	NR	Yes	No	DK	NR
Causes vaginal discharge	163(55.3%)	36(12.2%)	91(30.8%)	5(1.7%)	23(7.8%)	34(11.4%)	223(75.6%)	15(5.1%)
Causes penile discharge	265(89.8%)	11(3.7%)	13(4.4%)	6(2.0%)	26(8.8%)	60(20.3%)	188(63.7%)	21(7.1%)
Causes sores/wound on the private part	138(46.8%)	53(18.0%)	99(33.5%)	5(1.7%)	34(11.5%)	39(13.2%)	205(69.5%)	17(5.8%)
Leads to weight loss and wasting	162(54.9%)	53(18.0%)	73(24.7%)	7(2.4%)	223(75.6%)	5(1.7%)	49(16.6%)	18(6.1%)
Infected people may not know they are infected	135(45.8%)	130(44.1%)	24(8.1%)	6(2.0%)	141(47.8%)	62(21.0%)	79(26.8%)	13(4.4%)

NB: DK = Don't know NR = No Response

Knowledge of Complications of STDs Among Commercial Sex Workers

One hundred and ninety one (64.7%) and 168 (57.0%) respondents knew that gonorrhoea and HIV/AIDS respectively during pregnancy can affect the unborn fetus. One hundred and twenty seven (43.0%) respondents knew that gonorrhoea can make a woman to be barren, 76 (25.8%) had no idea whilst 84 (28.5%) said it can not make a woman to be barren.

Sixty one (20.7%) said that HIV/AIDS can make a woman to be barren whilst 148 (50.2%) had no idea (Table 15).

Table 15

Respondents knowledge of Complications of Gonorrhoea and HIV/AIDS

Statement	RESPONSE							
	GONORRHOEA				HIV / AIDS			
	Yes	No	DK	NR	Yes	No	DK	NR
Infection during pregnancy can affect the unborn fetus	191(64.7%)	25(8.5%)	70(23.7%)	9(3.1%)	168(56.9%)	9(3.1%)	96(32.5%)	22(7.4%)
Can make a woman to be barren	127(43.0%)	84(28.5%)	76(25.8%)	8(2.7%)	61(20.7%)	64(21.7%)	148(50.2%)	22(7.4%)

NB: DK = Don't know NR = No Response

Knowledge of Transmission of STDs

Two hundred and sixty seven (90.5%) and 232 (78.6%) of the 295CSWs responded that gonorrhoea and HIV/AIDS respectively can be contacted through sexual intercourse with people who look healthy (table 16).

Two hundred and sixteen (73.2%) respondents mentioned one or more modes of HIV/AIDS transmission while 79 (26.8%) could not. Sexual intercourse was mentioned by 189 (64.1%) of the 295 commercial sex workers. cuts and wounds from blades (during bathing and

manicure) by 98(26.4%. formites by 64(21.7%) and 57(19.3%) mentioned kissing (Table 17).

Table 16

CSWs' Response on whether Gonorrhoea and HIV/AIDS can be Transmitted through Sexual Intercourse with Healthy looking People

	Response			
Disease	Yes	No	Don't know	No Response
Gonorrhoea	267 (90.5%)	8 (2.7%)	13 (4.4%)	7 (2.4%)
HIV/AIDS	232 (78.6%)	8 (2.7%)	36 (13.0%)	19 (6.4%)

Table 17

CSWs Knowledge of the modes of HIV/AIDS Transmission

Mode of Transmision	Frequency	Percentage**
Sex	189	64.1
Blood	26	8.8
Injections	55	18.6
Cuts and wounds from blades	78	26.4
Kissing	57	19.3
Through Fomites*	64	21.7
Don't know	79	26.8

*Fomites mentioned included toilet seats, toothbrush, pants, cups, spoons and hair combs.

** Don't add up to 100% because of muluple responses.

Commercial Sex Workers Knowledge of STD Prevention

The commercial sex workers responses to a series of statements concerning STD/AIDS prevention were as shown in Table 18.

Two hundred and seventy seven respondents (93.9%) said that condoms can prevent the transmission of STDs. Also 268(90.8%) and 254 (86.1%) agreed to the statement that STDs/AIDS can be prevented by taking injections/antibiotics and going for regular medical check-ups respectively; 191 (64.7%) said that routine examination by CSWs of potential clients for features of STDs can prevent the transmission STDs (Table 18).

Table 18

Commercial Sex Workers Knowledge of STD/AIDS Prevention

STATEMENT	RESPONSE N = 295			
	YES	NO	DK	NR
Abstinence	180(61.0%)	94(31.9%)	15(5.1%)	6(2.0%)
Douching	104(32.3%)	163(55.2%)	25(8.5%)	3(1.0%)
Spermicides	64(21.7%)	169(57.3%)	59(20.0%)	3(1.0%)
Family Planning Pills	41(13.9%)	207(70.2%)	42(14.2%)	5(1.7%)
Injections/Antibiotics	268(90.8%)	22(7.5%)	3(1.0%)	2(0.7%)
Condom	277(93.9%)	16(5.4%)	0(0.0%)	2(0.7%)
Regular Medical Checkup	254(86.1%)	27(9.2%)	11(3.7%)	3(1.0%)
Blood Tonic/Capsules	71(24.1%)	191(64.7%)	29(9.8%)	4(1.4%)
Examining Potentials				
Clients for features of STDs	191(64.7%)	85(28.8%)	12(4.1%)	7(2.4%)

NB: DK = Don't know NR = No Response

Commercial Sex Workers' Knowledge of STD Treatment

Two hundred and forty (81.3%) respondents disagreed while 40 (13.6%) agreed to the statement that gonorrhoea has no cure at present.

Two hundred and four (69.1%) agreed that HIV/AIDS has no cure at present; 31 (10.5%) disagreed and; 43 (1.6%) did not know.

When asked whether gonorrhoea can be cured with antibiotics 257 (81.1%) said 'Yes' and 14 (4.7%) said 'No'. Eleven (3.7%) said HIV/AIDS can be cured with antibiotics while 210 (71.2%) said No.

Eighty eight (29.8%) CSWs mentioned private hospitals/clinics, 72 (24.4%), University College Hospital (UCH), Ibadan and 4 (1.4%), Adeoyo Specialist Hospital and 7(2.4%) UCH and Adeoyo Specialist Hospital (Table 19).

Table 19

Respondents' Knowledge of STD Treatment Facilities

Facility	Frequency	Percentage
University College Hospital, Ibadan	72	24.4
Adeoyo Specialist Hospital, Ibadan	4	1.4
UCH and Adeoyo	7	2.4
Private Hospital/Clinic	88	29.8
UCH + Adeoyo + Private Hospital	24	8.1
No response	100	33.9
Total	295	100

Attitude to HIV/AIDS:

Two hundred and fifty nine (87.8%) respondents believe that the existence of HIV/AIDS is real in Nigeria; 28 (9.5%) did not believe so. Eight respondents (2.5%) did not respond. Sixty four (21.7%) thought that they can get HIV/AIDS; 216 (73.2%) did not think so whilst 15 (5.1%) did not respond (Table 20).

Factors Associated with the Respondents' Knowledge of STDs

Table 21 shows a summary of the variables associated with the respondents' knowledge of STDs.

Table 20

Attitude to HIV/AIDS

Question	Response		
	Yes	No	No response
Do you believe that HIV/AIDS is real in Nigeria?	259 (87.8%)	28 (9.5%)	8 (2.8%)
Do you think that you can contract HIV/AIDS?	64 (21.7%)	216 (73.2%)	15 (5.1%)

Table 21

Variables Associated with Respondents' Knowledge of STDs

Variable	Test value (ANOVA)	df	P value	Comments
Age	F = 0.82	18: 232	0.67	Not significant
Education	F = 2.96	6: 249	0.01	Significant
Ethnic Group	F = 1.78	3: 251	0.15	Not significant
Religion	F = 1.43	4: 251	0.22	Not significant
Marital Status	F = 0.66	18: 235	0.85	Not significant

NB: df = Degree of Freedom

Table 21 shows that age, religion, ethnicity and marital status were not significantly associated with mean level of knowledge of STDs. However education was statistically associated with the mean level of knowledge of STDs (P=0.01) among the commercial sex workers. Those with post secondary education had the highest mean level of knowledge (mean = 15.5, SD =3.2) while those with some primary education had the least (Table 22).

Table 22

Respondents' education by mean knowledge score

(Maximum obtainable score=22)

Highest educational attainment	No observed	Mean score	Standard deviation
None	57	12.1	3.9
Some primary school	20	11.0	3.5
Completed primary school	42	12.1	3.8
Some secondary school	77	12.2	3.2
Completed secondary school	47	13.2	3.8
Post secondary school	11	15.2	3.2

Anova Table

Variation	Sum of Squares	df	Mean square	F value	P value
Between group	191	5	38.2	2.96	0.01
Within group	3226	250	12.9		
Total	3417	255			

NB: df = Degree of Freedom

SECTION C

PREVENTIVE PRACTICES OF RESPONDENTS WITH REGARDS TO STDs

Table 20 shows the various preventive practices of the commercial sex workers with regards to STDs. One hundred and four (35.21%) of the 295 CSWs use condom together with antibiotics. 40 (15.5%) use condom and antibiotics followed by medical check up. Thirty three (11.2%) use native herbs, 25 (8.5%) examine potential clients for features of STDs whilst 12 (4.1%) used diaphram "woman condoms".

Table 23

STD Preventive Practices Among the Respondents

Facility	Frequency	Percentage
Condom only	35	11.9
Condom + Antibiotics only	104	35.2
Condom + Medical Check-up only	24	8.1
Condom + Antibiotics + Medical Check up	40	13.6
Antibiotics only	9	3.0
Antibiotics + medical check up only	2	0.7
Medical check up only	3	1.0
Native herb	33	11.2
Examine potential clients for STDs	25	8.5
Use Diaphragm (woman condom)	12	4.1
Vouching	3	1.0
Total	295	100

On whether the respondents ask clients to use condom, 246 (83.4%) always do so, 39 (13.2%), frequently and 4 (1.4%) occasionally. Two respondents never ask their clients to use condoms because they didn't like it (Table 24).

Concerning the respondents' reaction if a customer refuses to use condom. 205(69.5%) respondents would refuse sex. 13 (4.4%) would have sex but would charge extra money whilst 2 (0.7%) said they would examine the customer for features of STDs before having sex. Forty nine (16.6%) sex workers reported that they would go ahead and have sex without the use of condoms (Table 25).

Table 24

Commercial Sex Workers who ask their Clients to use Condoms

Demand for the use of condoms	Frequency	Percentage
Always ask	246	83.4
Frequently ask	39	13.2
Occasionaly ask	4	1.4
Never ask	2	0.7
No response	4	1.4
Total	295	100.0

Table 25

Respondents' Reaction if a Customer Refuses to use Condoms

Reaction	Frequency	Percentage
Would refuse sex without condom	205	69.5
Would have sex without condom	49	16.6
Would have sex without condom but would charge extra money	13	4.4
Would have sex without condoms but would examine clients for features of STDs	2	0.7
Others	19	6.4
Total	288	100

Factors Associated With Condom Use

a. Always Asking Customer to use Condoms

As shown in Table 26, none of the variables had a statistically significant association with the practice of requesting clients to use condoms before sex. Similaly no variable was significantly associated with the practice of refusing sex if a customer disagrees to use condoms.(Table 27).

Table 26

Showing the Association of Variables with the Practice of Always Asking Customer to Use Condoms

VARIABLE	TEST OF SIGNIFICANCE	TEST VALUE	df	P VALUE	COMMENTS
Age	Students' t-test	t=0.47	293	0.66	Not significant
Education	Chi Squared test	X^2=3.18	3	0.36	Not significant
Duation in commercial Sex Work	Students' t-test	t=0.77	293	0.44	Not significant
Engaged in other work in addition to CSW	Chi Squared test	X^2=0.37	1	0.46	Not significant
Knowledge of STD complications	Students' t-test	t=1.02	293	0.31	Not significant
Perception of HIV/AIDS as a problem in Nigeria	Chi Squared test	X^2=0.05	1	1.00	Not significant
Perceived risk of getting HIV/AIDS	Chi Squared test	X^2=0.25	1	0.62	Not significant

NB: df = Degree of Freedom

Table 27

Showing the Association of Factors with the Practice of Refusing Sex if a Customer Disagrees to Use Condoms

VARIABLE	TEST OF SIGNIFICANCE	TEST VALUE	df	PVALUE	COMMENTS
Age	ANOVA	F=0.36	1; 293	0.55	Not significant
Education	Chi Squared test	X^2=2.15	3	0.54	Not significant
Duration in Commercial sex work	ANOVA	F=0.22	1; 293	0.55	Not significant
Engaged in other work in addition to CSW	Chi Squared test	X^2 =0.67	1	0.41	Not significant
Knowledge of STD	ANOVA	F=0.06	1; 293	0.43	Not significant
Knowledge of STD transmission and prevention	ANOVA	F=1.05	1; 293	0.31	Not significant
Perception of HIV/AIDS in Nigeria as a problem	Chi Squared test	X^2=0.09	1	0.76	Not significant
Perceived risk of contracting HIV/AIDS	Chi Squared test	X^2=0.06	1	0.80	Not significant

NB: df = Degree of Freedom

Medical Check Up

Table 28 shows the respondents' frequency of going for medical check up; 233 (79.0%) go at least once a month, 31 (10.5%) once in 2-3 months and 9 (3.0%) once in 6 months. Fifteen (5.1%) don't go for medical check up.

The choice of health facility for medical check up was Government hospital for 107 (36.3%) CSWs, Private hospital/clinic for 155 (52.5%) whilst 13 (4.4%) prefer a visiting health worker (Table 29). The reasons for their choice being confidentiality 167 (60.1%), distance 55 (19.8%) and better quality of care 40 (14.4%) as shown in table 30.

Table 28

Respondents' Frequency of Medical Check Up

Medical check up	Frequency	Percentage
At least once a month	233	79.0
Once in 2-3 months	31	10.5
Once in 6 months	9	3.1
< Once in 6 months	2	0.7
Didn't specify	3	1.0
Never	15	5.1
No response	2	0.7

Table 29

Respondents' Choice of Health Facility for Medical Check Up

Health facility	Frequency	Percentage
Government hospital	107	38.5
Private hospital	155	55.8
Visiting health worker	13	4.7
Others	3	1.1
No Response	17	5.8
Total	295	100

Table 30

Respondents' Reason for their Choice of Health Facility for Medical Check Up

Reason	Frequency	Percentage
Confidentiality	167	60.1
Less distance	55	19.8
Better quality of care	40	14.4
Cheaper	11	4.0
Less waiting time	2	0.7
No response	3	1.0
Total	278	100

SECTION D

TREATMENT-SEEKING BEHAVIOUR

One hundred and ninety (64.4%) of the respondents said they will go to hospital/clinic for treatment when they suspect that they have STD, 19 (6.4%) will treat themselves with drugs/injections. Seventy two (24.8%) did not respond to the question (Table 31)

Table 31

Respondents' Action When they Suspect that they have an STD

Facility	Frequency	Percentage
Go to hospital/clinic	190	64.4
Self-treatment	19	6.4
Others	14	4.8
No response	72	24.8
Total	295	100

Characteristics of Non-Respondents about their action when they suspect that they have an STD

Age: The non respondents ages ranged from 19-58 years with mean of 27.6 years and S.D of 8.

Knowledge of prevention of STDs: They had a mean knowledge score of 4.5 (S.D. = 2.1; range = 0-8) out of maximum obtainable score of 9.

Preventive Practices: Of the 72 non respondents, 56 (77.8%) always ask clients to use condoms, 13 (18.1%) frequently do so, while 1 (1.4%) occassionally do so. Two (2.8%) did not respond. Forty nine (68.1%) would refuse sex if a customer disagrees to use condoms, 3 (4.2%) will charge extra while 13 (18.1%) will go ahead and have sex

without the condoms. Routine drug use to as chemoprophylaxis/treatment for STDs: twenty five (34.7%) use drugs routinely to prevent and/or treat STDs whilst 30 (41.7%) don't do so.

Medical Check-Up: Sixty six (91.7%) go for regular medical check up while 5 (6.9%) don't do so.

DRUG USE AMONG RESPONDENTS

One hundred and twenty four (42.0%) respondents routinely use one or a combination of drugs for preventing and /or treating STDs whilst 171 (58.0%) don't. Of the respondents who use drugs, 3(3(2.4%) use ampicillin, 7(5.6%) use ampiclox whilst 15 combine both. Twenty four (19.4%) a combination of Ampicillin, Ampiclox and other drugs which include Blood tonic, Lime juice, Native herbs.

Table 22

Drugs Routinely used for Chemoprophylaxis and Treatment for STDs by Respondents

Drug	Frequency	Percentage
Ampicillin only	3	2.4
Ampiclox only	7	5.6
Ampicillin + Ampiclox only	15	12.1
Ampicillin + others	16	12.9
Ampiclox + others	7	5.6
Ampicillin + Ampiclox + others	24	19.4
Antibiotics (unspecified)	42	33.9
Others only	10	8.1
Total	124	100

Others include Native herbs, lime juice, Blood tonic and antibiotics apart from Ampicillin or Ampiclox

Factors Associated with Routine use of Drugs as Chemoproghylnxis and/or Treatment for STDs among the Respondents

Level of education, duration in commercial sex work and attitude towards HIV/AIDS had no statistically significant association with the practice of routine drug use for STDs (Table 33).

Table 33

Factors Associated with routine use of Drugs to Prevent and/or Treat STDs

VARIABLE	TEST OF SIGNIFICANCE	TEST VALUE	df	P VALUE	COMMENTS
Education	Chi squared test	X^2 =0.37	2	0.83	Not significant
Duration in commercial sex work	Kruskal Wallis test	H= 2.31	1	0.12	Not significant
Attitude towards HIV/AIDS as a health Problem In Nigeria	Chi squared test	X^2 =3.22	1	0.07	Not significant
Perceived risk of contracting HIV/AIDS	Chi squared test	X^2=10.57	1	0.001	Significant*

NB: df = Degree of Freedom

The respondents' perceived risk of contracting HIV/AIDS was significantly associated (P=0.001) with the respondents practice of routine drug to prevent and/or treat STDs.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

DISCUSSIONS

The study shows that most of the commercial sex workers were under 30 years of age, with over half being in the 20-29 year age group. This is not suprising as there is usually a higher demand for younger women by men who patronise commercial sex workers. The finding is consistent with those of Caldwell et al (1995) and Uribe-Salas et al (1997) who reported that younger women in the age group 20-29 years were the ones mostly engaged in commercial sex work. Over half of the CSWs were either separated, divorced or widowed whilst about 40 percent were single. This is to be expected as the traditional extended family system which hitherto had served as a social institution is gradually breaking down due to the process of urbanisation. Consequently such categories of women who otherwise would have been taken care of in such traditional setting find that they now have to fend for themselves. In addition, the single girls who were mostly young women just out of secondary school are desirous of "quick" money to set themselves up in their different trades. Thus prostitution seems to them to be the only way out.

Majority of the CSWs were either from the old midwestern region (Bini, Esan, Urhobo and Isekiri ethnic groups) or the Eastern region (Igbos). Less than 10 percent were from the western region where the study area is located. This compares favourably with other studies (Orubuloye, 1994; Caldwell, 1995) where it was reported that most of the CSWs in the study areas belonged to other ethnic groups than those of the local regions to ensure anonymity thus avoiding being recognised by people from their place of origin.

Their level of education was low as only 18 percent had completed secondary

school education and over 20 percent had no formal education. This is in contrast to the findings of Orubuloye (1994) who reported that only 10 percent of the CSWs had no schooling. This may imply that an increasing number of illiterates (probably from the rural areas) are now joining the profession as a result of the rapid urbanisation and the current economic recession in Nigeria. About one third of the CSWs were engaged in sex work only, while a little over 60 percent were engaged in other work such as petty trading, fashion designing and hairdressing. Some of the sex workers took to prostitution so as to enable them get enough capital to set up their own business later. About two thirds of the CSWs were either separated, divorced or widowed and would need money to set up a business and to care for their children. This may explain why they resorted to prostitution. Similar findings were reported by Vincent et al (1996) whose study of prostitutes in China shows the primary motivation to enter prostituuon was financial (money) for about half of those studied. A study of teenage prostitution by Adedoyin and Adegoke in Ilorin (1995) also confirms these findings. It is interesting to note however that peer group effect or "tricking" were not major reasons for joining the profession.

Over two thirds of the respondents had children of their own and had been in the sex profession for between 1-12 months.

On their awareness of STDs, more than 90 percent were aware of at least one STD, gonorrhoea being the most frequently mentioned, followed by AIDS and syphilis. Over 90 percent had heard about HIV/AIDS, their source of information being the media (radio, television or newspaper), health workers and friends/colleagues. This is similar to findings of Williams et al (1989) of a survey of CSWs in Nigeria. This high level of awareness is probably due to the extensive mass media coverage of the recent death through AIDS of a popular Afro-beat singer.

The commercial sex workers knowledge of symptoms of STDs showed significant deficits. While almost 90 percent knew that gonorrhoea can cause penile discharge, only 55 percent knew it can cause vaginal discharge. A little over 50% of the sex workers did not know that gonorrhoea or HIV/AIDS may be asymptomatic. This figure is higher than that reported by Ford et al (1994) in a study of Indonesian sex workers among whom only a quarter responded that a HIV-infected person may appear healthy. This implies that knowledge of HIV/AIDS in Nigeria is relatively poor, an implication for urgent health education intervention. Their knowledge of complications of STDs was also poor as less than half knew that gonorrhoea can cause infertility.

Regarding their knowledge of transmission of STDs, a very high proportion of the CSWs mentioned sex as a mode of transmission. Their knowledge of other modes apart from sex, especially regarding HIV/AIDS was low. Less than 30 percent mentioned blood, injections or cuts/wounds from contaminated needles/blades. Also a significant proportion mentioned kissing and fomites (toilet seats, tooth brush, pants, cups, spoons and hair combs) as modes of HIV transmission. Over a quarter of the sex workers could not mention any mode of HIV transmission. There is therefore a need for an intensive health education programme which should emphasize the symptomatology, modes of transmission and complications of STDs

Concerning knowledge about the methods of prevention of STDs, an overwhelming majority of the CSWs knew that condoms can prevent STDs. However it is worth noting that a large proportion believe that taking regular antibiotics, attending for regular medical check ups and examining potential clients for features of STDs before sex can prevent STDs.

The knowledge of STD treatment was fair as 81 percent of the CSWs believe that

gonorrhoea can be cured while 69 percent knew that HIV/AIDS has no cure at present. Most of them knew STD treatment facilities they could go to if they had an STD and these include the University College Hospital, Adeoyo Specialist Hospital and private clinics. One third of the sex workers did not know any STD treatment facility in the municipality. This is not suprising as nearly three quarters of those interviewed had been in the profession for less than a year and probably had not had enough time to find out about the locations of medical facilities. Another reason is the restricted lives of the CSWs (Orubuloye et al, 1994) which would not permit for exploring treatment facilities.

Their attitude towards HIV/AIDS as a public health problem in Nigeria was positive although their risk perception regarding the disease was poor as less than a quarter of them believed that they can contract the infection.

Regarding their preventive practices concerning STDs, two thirds of them use condoms either alone or in combination with antibiotics and/or medical check-up. A few resort to native herbs whilst others examine potential clients for features of STDs before sex as preventive measures. It is interesting to note that a small minority use the diaphragm (which they refer to as "woman condom") to prevent STDs. In general, this pattern of condom use and other preventive practices compared favourably with other studies among commercial sex workers in four Nigeria cities (Orubuloye et al, 1994) which reported regular condom and antibiotic use to prevent STDs, with most of them examining clients for signs of STDs and about 5 percent substituting herbal medicines for antibiotics.

Eighty three percent of the CSWs always demand that their clients use condoms and about 70 percent would refuse sex if a client disagrees to use condoms. However, the figure reported in this study is much higher than that of Alegria et al (1994) in which

about 60 percent of Puerto Rican sex workers used condoms always and that of Orubuloye et al (1994) in which only one third of the CSWs reportedly used condoms regularly. The findings also indicate that about one third of the CSWs would have sex if the client does not agree to use condoms, but such concession would attract extra charges or the CSW might insist on checking clients for features of STDs (Penile Discharge and Ulcers) before having sex. This has implications for STD control as only consistent use of condoms can ensure maximal protection from the sexual transmission of these diseases.

No factor was found to have a statistically significant association with the habit of always asking clients to use condoms or of refusing sex without condoms. Neither socio-economic/demographic factors nor knowledge of and perceived risk to STDs was significantly associated with these habits.

Most of the respondents go for medical check-up, with almost 80 percent doing so at least once a month and a further 10 percent at least once in two to three months. Only 5 percent reported not going for medical check-up. The respondents choice of health facility was private hospital/clinic for over half of them and government hospital for about 40 percent. The reasons for their choice of facility was confidentiality, distance and better quality of care.

With regards to routine drug use to prevent and/or self treatment of STDs, about 40 percent routinely used one or a combination of drugs which included ampicillin, ampiclox and other unspecified antibiotics. They also use native herbs, lime juice and blood tonic regularly as chemoprophylaxis and/or treatment. This finding does not compare favourably with that of Orubuloye et al (1994) which reported almost universal antibiotic use daily and in some after every client to prevent STDs. However the most

commonly used drug was ampicillin in both studies.

Concerning the CSWs treatment-seeking behaviour when they suspect that they have an STD, over 60 percent would go to a hospital/clinic for check-up/treatment while about 10 percent would resort to self-medication. About a quarter of the CSWs did not respond, claiming that they never had an STD. The relatively high proportion (25 percent) of our subjects who claimed that they had never had STDs must be interpreted with caution as such responses are subjective, especially when previous researchers have shown high prevalence of STDs in asymptomatic CSWs. (Pal et al, 1994; Nkya et al, 1991; Nzilko et al, 1991; Urabe et al, 1988; D'Costa et al, 1985 and Plummer et al, 1990)

CONCLUSION

The present study assessed the knowledge, attitude, preventive practices and treatment-seeking behaviour of commercial sex workers in Ibadan municipality.

The study has shown that although the commercial sex workers knowledge of prevention of, and treatment facilities for STDs was fair, their knowledge of the clinical features and modes of transmission was relatively low particularly regarding asymptomatic transmission of STDs. Similarly, their knowledge of complications of STDs was low especially regarding gonorrhoea and infertility.

The attitude of the commercial sex workers towards HIV/AIDS as a public health problem in Nigeria was fairly positive but their perceived risk of contacting the infection was low.

The Commercial Sex Workers' use of condoms during sex with clients was encouraging and a high proportion of them attend health facilities for regular medical check up. The use of native herbs and of diaphragm and the examination of potential clients for features of STDs were some of the practices reported by a relatively small proportion of the CSWs to prevent STDs. Antibiotics were found to be commonly used as chemoprophylaxis and such drugs include Ampicillin, Ampiclox, and some unspecified antibiotics.

Regarding their treatment-seeking behaviour with respect to STDs, a fairly high proportion would seek appropriate medical care in hospitals and clinics while an insignificant resorted to self-medication.

Based on these findings the following recommendations are made.

RECOMMENDATIONS

1. The current efforts of Non Governmental Organisations (NGOs) on the welfare of widows should be intensified and extended to cover other categories of disadvantaged women such as those separated or divorced from their husbands. The NGOs should provide financial assistance through a revolving fund and facilities for vocational training for those of them who may require it.

2. In order to improve better understanding of their problems, the CSWs should be encouraged to form unions where they can discuss issues regarding their welfare. Through such unions they can enforce on their members certain guidelines for instance the general use of condoms by clients at all times.

3. The current STD/AIDS education campaign should be intensified and extended specifically to the commercial sex workers in order to improve their knowledge, attitude, preventive practices and treatment-seeking behaviour. Any such information should be disseminated to the public using the various forms of the mass media such as posters, Television, Radio and the Newspapers. The Commercial sex workers should also be encouraged to participate through peer education, coopting the intelligent and educated ones amongst them.

4. In order not to discourage the commercial sex workers from seeking proper medical care, all health workers involved in STD care should be educated on the importance of confidentiality and good quality of care for STD patients.

5. Promotion of safer sexual behaviour and condom social marketing aimed at the general public should be intensified. This is because the clients of the commercial sex workers are part of the general public and the acceptance of condoms amongst them will make its negotiation easier for the sex workers.

6. Registration and licensing of all brothels should be done by the government authorities. No brothel should be allowed to operate unless they meet certain criteria. Such criteria should include facilities for periodic medical examination and condom advocacy.

7. Sex education on all aspects of sexually transmitted diseases including the causes, modes of transmission, complications and prevention should be introduced into the curricula of Primary and secondary schools.

8. There is need for future research into the possible impact of prostitution on the family especially the children of the commercial sex workers.

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APPENDIX A

QUESTIONNAIRE ON COMMERCIAL SEX WORKERS' KNOWLEDGE, ATTITUDE, PREVENTIVE PRACTICES AND TREATMENT-SEEKING BEHAVIOUR IN IBADAN MUNICIPALITY.

INTRODUCTION

We are conducting a study on the Commercial Sex Workers' knowledge, attitude, preventive practices and treatment-seeking behaviour in Ibadan. We would like to take some of your time to ask you a few questions. Your answers will be confidential and has nothing to do with the authorities. Thank you for participating in the study.

1. Interviewer_____ 2. Date of interview_____

3. Location_____

4. LGA_____

5. How old are you (in years)?_____

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

7. What religion do you practice?
   1. Christianity
   2. Islam
   3. Traditional religion
   4. None

8. What is your tribe/ethnic group?

1. Hausa
2. Igbo
3. Yoruba
4. Midwest (Bini/Edo/Esan/Urhobo)
5. Others (specify)_____

9. What is your highest educational attainment?

1. None
2. Some primary school education
3. Completed primary school education
4. Some secondary school education
5. Completed secondary school education
6. Post-Secondary school education

10. Apart from commercial sex work, are you engaged in any other occupation/work?

1. Yes
2. No (go to question 11)

11. If yes, what is the other occupation/work?

12. How many children do you have?

13. How old is your oldest and youngest child?

Eldest ____years youngest ____years

14. How long have you been in this profession (in months)?

15. What is/are the reasons for your being in this profession?

1. Couldn't get any other job.
2. Need money to start business.
3. Abandoned by husband.
4. Widowed.
5. Peer group effect (ie influence of friends).
6. Tricked into it.
7. Combination of the above (specify them)
8. Others (specify).

16. Would you like to quit the profession if you have the opportunity of a better job?

1. Yes (go to question 18)
2. No

17. If no, why don't you like to quit the profession?

18. Please mention the important diseases that can be transmitted through sexual intercourse and give their main symptoms

Disease	Symptoms

19. Have you ever heard about HIV/AIDS? ☐

1. Yes
2. No (go to Q22)

20. If yes, where did you hear it from? ☐

1. Radio/TV/Newspaper
2. Colleagues/Friends
3. Health Workers
4. Others(specify) _____
5. Combination (specify) _____

21. Mention the ways in which HIV/AIDS can be transmitted

1. _____
2. _____
3. _____
4. _____
5. _____

22. Regarding the following statements about Gonorrhoea and HIV/AIDS Please respond with a Yes (Y), No (N), or Don't know (DK).

STATEMENT	GONORRHOEA	
HIV/AIDS		
1. Causes vaginal discharge	☐	☐
2. Causes sores/wounds on the private part	☐	☐
3. Infected people may not know they are infected	☐	☐
4. Can be contracted through sexual intercourse with people who look healthy	☐	☐
5. Leads to weight loss and thinning	☐	☐
6. [illegible]	☐	☐

7. Can be cured with antibiotics	☐	☐
8. Causes discharge from the penis of men	☐	☐
9. Can be prevented by eating good food and taking blood tonic/capsules	☐	☐
10. Can make a woman to be barren (not have children)	☐	☐
11. If a person has it, when pregnant, it can affect the unborn child	☐	☐

23 Do you think the existence of HIV/AIDS is real in Nigeria?

1. Yes ☐
2. No

24a Do you think you can get HIV/AIDS?

1. Yes ☐
2. No (go to Question 25)

24b If Yes, why do you think you can get it?

_____

_____

_____

25 Do you do anything to avoid getting sexually transmitted diseases (and AIDS)? ☐

1. Yes
2. No (go to Question 27)

25b If Yes, what do you do? Please mention them.

1. _____
2. _____
3. _____
4. _____
5. _____

26 What other measures of preventing sexually transmitted diseases/AIDS do you know?

1. _____
2. _____
3. _____

27 Sexually transmitted diseases/AIDS can be prevented by the following. Please answer YES (y), No (N) or Don't know (DK)

STATEMENT	RESPONSE
1. Abstinence (not having sex at all)	☐
2. Douching (washing the private part with soap and water after sexual intercourse)	☐
3. Spermicidal creams/foaming tablets)	☐
4. Family planning pills	☐
5. Injections/Antibiotics	☐
6. Using condoms	☐
7. Regular medical checkup	☐
8. Taking blood tonic/capsules	☐
9. Examining potential customers for features of sexually transmitted diseases	☐

28 Do you ask/make your customers to do anything to prevent you from getting sexually transmitted diseases? ☐

1. Yes
2. No (go to Question 30a)

29 If Yes, what do you ask/make them to do?

30a Have you ever used condoms? ☐

1. Yes
2. No

30b Do you ask your customers to use condoms? ☐

1. Yes
2. No (go to Question 32)

31 If Yes, how often do you do so?

1. Always
2. Frequently
3. Occasionally

32. If No, why?

1. I don't believe it protects against STDs/AIDS.
2. I don't think I am at risk.
3. I don't like using it.
4. Most clients don't like it.
5. Others (specify) _____

33 What do you do if a customer refuses to use condoms?

1. I charge him extra.
2. I refuse to have sex with him.
3. Nothing. I let him go ahead without the condoms.
4. Others (specify) _____
5. Examine customer for STD

34 In the last 6 months have you noticed any sores or wounds on or vaginal discharge from your private part?

1. Yes
2. No (go to Question 35).

34b If Yes, how many times did you notice it?_____

35 What do you do when you suspect that you have a sexually transmitted disease?

_____

_____

_____

36a Do you know of any specific STD facilities in Ibadan where you can go if you contact a sexually transmitted disease?

1. Yes
2. No (go to Question 37)

36b. If Yes, name them

_____

_____

_____

37a Do you know any drugs for treating sexually transmitted disease?

1. Yes
2. No (go to Question 38) ☐

37b If Yes, please specify the drug(s) and the disease it is used for.

	DRUG	DISEASE
1.		
2.		
3.		
4.		
5.		

38 Do you keep any drug with you for treating sexually transmitted disease when you get infected?

1. Yes ☐
2. No (go to Question 39)

38b If Yes, specify

	DRUG	DISEASE
1.		
2.		
3.		
4.		
5.		

39 Do you go for medical checkups? ☐

1. Yes
2. No (go to Question 44)

40 If Yes, how often do you go for medical checkups?

1. Every month/Every week/Every 2 weeks
2. Once in 3 months/Once in 2 months
3. Once in 6 months
4. Once a year
5. Less than once a year

41 When was the last time you went for medical checkups?

1. Less than 6 months ago.
2. 6-12 months ago.
3. 13-18 months ago.
4. 18-24 months ago
5. More than 24 months ago

42 Where do you go for medical checkups?

1. Govt hospitals.
2. Private hospitals/clinic.
3. Somebody come to the hotel to check us
4. Others (specify) _____

43 Give the reason for your choice above

1. Cheaper
2. Nearer to where I live/work
3. Confidentiality
4. Better quality of care/they take better care of person
5. Less waiting time

44 If you don't go for medical checkups, what are your reasons?

_____

_____

_____

_____

45 On the average how many customers do you get in a day? _____

46 On the average how much do you charge customers per round?

N_____

47 Have you ever seen anyone suffering from HIV/AIDS?

1. Yes
2. No

48 If yes, where did you see the person?

1. In a Brothel
2. At home/village
3. On television
4. In the hospital
5. Others (specify) _____
6. Combination (3&4)

THANK YOU.