**AN INVESTIGATION AND POSSIBLE SOLUTION OF HIV/AIDS AS A SOCIAL DISEASE IN TERTIARY INSTITUTIONS IN NIGERIA**

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This study is aimed at finding out the problem associated with HIV/AIDS and proffering solutions. Questionnaires were administered to collect information from respondents. It was found out that HIV causes so many diseases and hence it was deadly. Also, there are available treatments and preventive measures as regards the transmissions and contamination of the virus. The researcher therefore recommended that there should be awareness campaigns for HIV/AIDS pandemic and that medical and counseling centres be made available.

****CHAPTER ONE****

****INTRODUCTION****

****1.1 BACKGROUND OF THE STUDY****

The continuous increase in the infection of HIV/AIDS and the transmission from one source to another has become a major factor leading to death and decrease in population of our society at large, knowing fully well that HIV/AIDS has no cure.

The rapid rate of transmission is overpowering man’s ability to find a lasting solution to this deadly disease in Nigeria. HIV is an abbreviation for human immune virus, while AIDS is an acquired Immuno Deficiency Syndrome in the mobility and mortality weekly report (MMWR) of the centre for disease control (c. D. C.) in 1982 and fined as a disease at least moderately occurring with known excuse from diminished resistance to that disease (C. D.C., 1982). Hence, it is asserted that the deficiency in the immune system resulted in fatal disease called HIV is a causative agent of AIDS.

****1.2 STATEMENT OF PROBLEM****

HIV/AIDS is a great problem in Nigeria which is as a result of contamination from infected source (unprotected sex, human trafficking etc.) the study tends to find out the prevalence of HIV/AIDS using Oredo Local Government Area of Edo State as case study. It also aimed at estimating the level of awareness of the general public and to unveil the effect on man.

****1.3 PURPOSE OF THE STUDY****

The purpose of this study is to provide adequate account on the widespread of HIV/AIDS,. As a result, determining its occurrence and estimation of the level of awareness, the causes and effects will also be unveiled.

****1.4 SIGNIFICANCE OF THE STUDY****

The following are the importance` of this study:

1.   It affords the researcher the opportunity of learning about HIV/AIDS and its prevalence, hence available for those who wish to educate on HIV/AIDS.

2.   It will help the local government to be aware of the occurrence of people living with HIV/AIDS.

3.   It will also save the country as a whole from the lost of probable useful manpower in the future.

****1.5 SCOPE OF THE STUDY****

This study/research is limited to Edo State using Oredo Local Government Area as a case study. The researcher covered the causes of HIV/AIDS, effects on human health and it’s preventive measures in Edo State of Nigeria.

**1.6** ****BASIC RESEARCH QUESTIONS****

1.   Is the public aware of the HIV/AIDS disease?

****2.****Do they (the public) know of its existence?

****3.****Do they know any person living with HIV/AIDS?

****4.****Is the public aware of its causes, signs and symptoms?

****5.****Do they guard against the disease?

****1.7 DEFINITION OF TERMS****

****HIV****: Is an abbreviation for the word Human Immuno Deficiency Virus and it is the virus that causes the disease AIDS.

****Aids:****AIDS is an abbreviation for the word acquired immune deficiency syndrome. It is referred to an illness which attacks the defense system of the body (i.e. the white blood cells). It is caused by the virus HIV and usually leads to death.

****Prevalence:****This is referred to as the widespread of a particular thing at a time, the existing commonly at a high rate at a particular time.

**CHAPTER TWO**

**REVIEW OF LITERATURE**

**INTRODUCTION**

Our focus in this chapter is to critically examine relevant literature that would assist in explaining the research problem and furthermore recognize the efforts of scholars who had previously contributed immensely to similar research. The chapter intends to deepen the understanding of the study and close the perceived gaps.

Precisely, the chapter will be considered in three sub-headings:

* Conceptual Framework
* Theoretical Framework

**2.1 CONCEPTUAL FRAMEWORK**

**Overview Of Hiv/Aids**

**What Is Hiv And Aids**

The Human Immunodeficiency Virus (HIV), known to cause Acquired Immune Deficiency Syndrome, destroys or hinders the activity of T-lymphocytes, specifically CD4 and CD8 subpopulations (Van Dam 2017:1). This leads to a continuous decline of the immune system causing immune deficiency, resulting in the progression of AIDS. At a certain point, the immune system is no longer able to function efficiently to combat infections and diseases, paving way for a number of opportunistic infections (WHO 2018a:2). Some of these opportunistic infections include tuberculosis, recurrent pneumonia, toxoplasmosis, and several others. In fact, this stage commonly referred as Acquired Immunodeficiency Syndrome may be characterised by more than twenty (20) opportunistic infections, and HIV-related cancers including Kaposi sarcoma, non- Hodgkin lymphoma, and invasive cervical cancers (WHO 2018a:3).

**HIV Sub-types**

HIV belongs to a subgroup of retroviruses known as lentivirus, causing a variety of chronic diseases. There are two main known types of the virus, HIV-1, and HIV-2. HIV- 2, which was first isolated in West African patients is similar to HIV-1 and also share close characteristics with the simian immunodeficiency virus (HIV Sequence Database 2017:3). HIV 1 accounts for around 95% of all infections worldwide, and HIV 2 has been described as a slow virus due to the reduction in its virulence, resulting in a difference in the pathogen city of HIV 1 and HIV 2. The epidemiology of HIV 1 and HIV 2 differs greatly. For instance, HIV 2 is more prevalent in West Africa, compared to its prevalence in other regions (AVERT 2018a:1).

HIV 1 could be further sub-grouped into group M, N, O and P. Group M of HIV 1 was the first identified virus that causes the majority of HIV infection worldwide, resulting in the HIV pandemic. The Group M subgroup alone is believed to have additional different subtypes: A, B, C, D, E, F, G, H, I, J, K. The varied number of HIV virus results from mutations and genetic variations of the virus (HIV Sequence Database 2017:2).

**Epidemiology of HIV/AIDS**

Since the beginning of the HIV epidemic, approximately 76 million people have been infected with the virus, with an approximate 35 million people reported dead due to AIDS-related illnesses. In 2017, the number of people newly infected with HIV and the number of people who died from aids related illnesses was approximately 1.8 million and 940,000, respectively (UNAIDS 2018a:1).

Globally, HIV related deaths have fallen, most likely due to the intervention of Highly Active Anti-Retroviral Therapy (HAART). Among children, new HIV infections have fallen by about 35% since 2010, with approximately 180 000 newly infected in 2017, compared to approximately 270 000 in 2010 (UNAIDS 2018a:1). Approximately 21.7 million people with HIV were accessing antiretroviral therapy by June 2017, as compared to an estimate of 15.8 million in June 2015 and 7.5 million in 2010 (UNAIDS 2018b:1). An estimated 46% percent of people with HIV had access to treatment, and about 77% of HIV positive pregnant women having access to antiretroviral medication for the prevention of HIV transmission from mother to baby (UNAIDS 2017:1).

There has been no reduction in new HIV infections for adults, with about 1.9 million adults acquiring HIV infection yearly since 2010. However, AIDS-associated deaths have seen a reduction of 45% since their peak in 2005, with approximately 1.1 million people dying in 2015 in comparison to approximately two million in 2005. Tuberculosis is the predominant cause of death among the HIV positive; being responsible for a third of AIDS-related deaths (UNAIDS 2018b:1). However,tuberculosis-related deaths have seen a reduction of 32% since 2004. In 2017, an investment of 21.3 billion US dollars was made into the AIDS response in low and middle-income countries. Fifty-six percent of the total resources for HIV in low and middle-income countries were made up of domestic resources in 2015. It is estimated that 26.2 billion dollars will be needed for the aids response in 2020 and 23.9 billion in 2030 (UNAIDS 2018b:2).

**Transmission of HIV**

HIV is transmittable through unprotected sexual intercourse with an infected individual, contaminated blood product, contaminated needles and syringes, contaminated surgical equipment, or other sharp instruments. It can also be passed on from mother to child during pregnancy, child birth, and breastfeeding (WHO 2018a:1).

HIV is transmitted from an infected person to an uninfected one when an infected body fluid enters the body of the uninfected person mostly through the mucous membranes. This includes oral membranes, vaginal membranes, and the anal membranes. Another way of getting infected with the virus is through the use of infected needles and sharps (HIV.gov 2017:1). An infected mother could pass the HIV to the baby during labour or breastfeeding. HIV could be transmitted to people during procedures such as organ transplantation and blood transfusion. Pre-screening of such tissues and blood before the donation process is very important and has helped in reducing the spread of the virus (AVERT 2018b:1).

**Invasion and mutation of the HIV**

HIV must invade cells to reproduce. When HIV gets access to a cell, it converts viral RNA into DNA within the cell by using the enzyme reverse transcriptase. Due to the rapid conversion rate and a compromised immune system, the body is unable to fight HIV infection. This enhances the mutation of the virus. Reverse transcriptase does not have the typical proofreading that happens with the replication of DNA thus making the possibility of mutation more likely. The process continues in such a way that after the formed copies leave the cell, the cell is already damaged, and the infected cell goes on to infect other healthy cells, making it very difficult to eradicate the virus (Wang-Shick 2017: 227,235).

The mutation of the HIV virus has resulted in the evolution of several sub-types of the virus. In the USA, type B is the main subtype, while in East Africa, sub-types A and D are prevalent, subtype C is the prevalent type in Southern Africa, while West Central Africa has the greatest variance in subtypes. In addition, the mutation has resulted in HIV having the ability to outmaneuver both our biological response as well as our scientific responses, such as drug development. Our individual immune systems respond to infections and acquire resistance, this resistance and response can be passed onto future generations (Doyal & Doyal 2013:3).

A virus can be described as genetic material wrapped in a coat of protein molecules. Viruses have no cell walls, and are parasitic furthermore, they can only replicate inside a host cell. HIV is also classed as lentivirus, meaning that it is slow acting. HIV, like many lentiviruses,has been known to have adverse effects on the human brain and the immune system (Lampejo & Pillay 2013:421). The combination of HIV and other major diseases slows down the healing process as the immune system is greatly compromised (Joska, Stein & Grant 2014:4).

**Diagnosis Of Hiv\Aids**

community pharmacists involved in the care of patients living with HIV/AIDS should receive training on testing and diagnosing of HIV infection. Early detection helps in halting transmission as well as improving the life of the patient (CANAC 2013:7). HIV antibodies could be detected after 45-60 days of infection through screening tests. First timers are expected to come back for retesting after three months since HIV antibodies might not be detectable through enzyme immunoassay (EIA) test or rapid assay test (Davies, Smith, Brown, Rice, Yin & Delpech 2013:524).

The HIV test kits used in most testing centers can detect HIV-1 and HIV-2 antibodies after about 20-30 days of infection (Lampejo & Pillay, 2013:422). Newer test kits that are now in use detect both antibodies and p24 antigens, thereby reducing the window period to between three and six weeks after transmission. A negative test result six weeks after exposure can be concluded to be correct with a high degree of certainty, though it is recommended to take a repeat test after three months for additional reassurance (Alexander 2016:251). Rapid HIV antibody tests are easy to use. They are more useful in situations that necessitate point of care testing (POC). Rapid tests can be performed in 20 minutes, and they do not require special laboratory equipment or extensive personnel training. They are used extensively in developing countries where access to laboratory infrastructure for HIV testing and diagnosis is unavailable (Alexander 2016:251).

The World Health Organization acknowledges four stages of HIV disease progression. The first stage is usually asymptomatic. The second stage is associated with symptoms such as mild weight loss, fungal infections, and infection with herpes simplex virus. The patient is generally unwell as the virus gets replicated and starts spreading around the patient‘s cells. Stage three is marked by serious signs and symptoms like opportunistic infections, candidacies, fevers, diarrhea, and severe weight loss. The fourth stage is also known as AIDS. It is at this point that the patient becomes very weak and very sick. During this stage, the patient can have all sort of bacterial infections including extra- pulmonary tuberculosis; pneumocystis pneumonia, toxoplasmosis, and meningitis (AVERT 2017:1, 2)

**Management Of Hiv\Aids**

The management of a patient with HIV and AIDS is discussed under testing, prevention, care and support and role of the community pharmacists in AIDS care.

**Testing Of Hiv\Aids**

Many patients have been treated for symptoms closely related to HIV, but since they have not yet been tested, they are misdiagnosed and the treatment offered to them does not work. They may end up spreading the virus and usually end up with a late diagnosis, which makes the management of the disease very difficult. According to a UNAIDS report, almost 70% of the people infected with this virus globally are oblivious of their HIV status (HIV.gov 2018:1). Despite the fact that HIV/AIDs awareness has been greatly emphasised, most people have not yet visited testing centres.

Key factors that would help community pharmacists care better for HIV/AIDS patients need to be put in place in healthcare facilities. For example, there ought to be a routine procedure to test patients for HIV if they suffer from a sexually transmitted infection. community pharmacists should be able to advise these patients on the importance of proper sexual habits and the importance of testing to eradicate doubt and ensure early treatment if need be. Prior to testing, community pharmacists ought to have a thorough conversation with patients ensuring the patient fully understands the benefits of the test and the options available to the patient regardless of the results. The nurse must ensure that they are professional the whole time and allow the patient to make the decision. Face-to-face conversations are a better way to carry out this procedure. Other suggestions are that the patient is able to comprehend the information. For instance, patients with memory loss problems or mental conditions might need to be dealt with differently, as they may not be able to fully understand the information or importance of such testing. The law guides community pharmacists on the procedures to undertake when dealing with sensitive health issues for such patients (Smith, Odera, Chege, Muigai, Patnaik, Michaels-Strasser, Howard, Yu-Shears& Dohrn 2016:326; CANAC 2013:7).

**Prevention of HIV\ AIDS**

community pharmacists play a key role in the prevention of HIV/AIDS. community pharmacists are the first point of contact for patients. Education of the patient is one of the key roles of community pharmacists, and therefore competency in that aspect is a need. According to Fonner, Armstrong, Kennedy, O'Reilly, and Sweat (2014:16), infection with HIV could be prevented through proper sex education. Proper sex education not only reduces the infection rate of HIV but can significantly reduce STI/STDs. The provision of free condoms, eliminating the stigma associated with condom use and sex education to the public, especially adolescents and young adults, leads to a reduction in the spread of the virus. Prevention of the spread of the virus could also be achieved through the provision of clean needles and syringes to injection drug users. The World Health Organization (2015: 1) recommends the use of pre-exposure prophylaxis to individuals who are at high risk of contracting the virus. Pre-exposure prophylaxis is the use of antiretroviral drugs to prevent the spread of infection to high-risk individuals, such as prostitutes, gay men, and injection drug users.

**Care and support for PLWHA**

After the initial diagnosis of patients infected with the virus, patients will require a great deal of counselling, support, and education to enable them tocope with the physical and psychological stress associated with the disease. As mentioned in the previous paragraphs, early detection of HIV and initiation of antiretroviral therapy helps in prolonging the life expectancy of persons living with HIV and AIDS. PLWHA often experience HIV-related stigma and discrimination from their communities including feelings of shame due to society‘s views about HIV/AIDS (Chidrawi, Greeff, Temane &Doak 2016:202). For these reasons, newly diagnosed patients will require empathetic care and support from community pharmacists. Nursing competencies become a significant key to guiding the attitudes of community pharmacists caring for patients diagnosed with HIV and AIDS (Relf & Harmon 2016:210; CANAC 2013:9).

According to Doyal and Doyal (2013:6), the education of HIV positive mothers has led to reduced anxiety and fear of transmitting the virus to their unborn children. This has also lead to safe deliveries and the confidence to cope with the virus.

**Role of community pharmacists in HIV/AIDS care and management**

The evolution of HIV infection into a chronic disease has implications for nursing across all clinical settings. People living with HIV/AIDS require ongoing health care services as they are potentially at increased risk of developing HIV/AIDS-related short and long- term complications such as cardiovascular, liver disease, accelerated bone loss, metabolic disorders and death (Ali, Magee, Dave, Ofotokun, Tungsiripat, Jones, Levitt, Rimland, and Armstrong 2014:27; Deeks, Lewin, and Havlir 2013:1529). Those able to access medical care and antiretroviral therapy are living longer, healthier and improved lives.

Previous studies (Strike, Guta, De Prinse, Switzer, Chan & Carusone,2014:640; Johnson, Samarina, Xi, Valdez RamalhoMadruga, Hocqueloux, Loutfy, Fournelle…, & Zachry 2015:1220) have posited that PLWHAs will require ongoing medical attention, antiretroviral treatment, and support from community pharmacists. Furthermore, the chronicity of HIV infection coupled with immune suppression may place PLWHAs at the mercy of other illness, which in most cases could warrant hospitalisation. With community pharmacists being at the forefront of the HIV epidemic, they are expected to be knowledgeable about the prevention, testing, treatment, and chronicity of the disease in order to provide high- quality care to people with HIV (Marrazano et al. 2013:1; Suzan-Monti et al. 2015:308).

Challenges such as an uneven doctor to patient ratio in the health systems of developing countries have led to the World Health Organization (WHO) recommending tasks shifting from doctors to community pharmacists, midwives and other paramedic staff in the management of HIV and AIDS (Suzan-Monti et al. 2015:308). community pharmacists are now required to do HIV counseling and testing, clinical assessment, adherence counseling for the initiation and monitoring of antiretroviral therapy, providing psychosocial support and continuum of care through follow-ups (Suzan-Monti et al. 2015:308; Iwu & Holzemer 2013:43).

The community pharmacists‘ knowledge level of HIV and AIDS may have an impact on the quality of services provided (Gagnon & Cator 2015:414). The uptake of HIV/AIDS services by community pharmacists has shown significant results. According to Iwu and Holzheimer (2013:50), task shifting to community pharmacists has to lead to increased access to ART, retention in care and improved outcomes in PLWHA. This task-shifting, along with the acute shortage of community pharmacists, has led to increased workload and burn-out in a nurse. community pharmacists‘ satisfaction through the provision of incentives is an important indicator of the quality of nursing care. Amidst the increased workload, a flexible shift system can help prevent burnout, and result in a higher quality of care (Makhado & Davhana-Maselesele 2015:6).

**Community Pharmacists’ Hiv And Aids-Related Knowledge**

Under this section, the knowledge of community pharmacists on HIV and AIDS described with findings of previous studies. The meaning of knowledge, the competencies required of the nurse in AIDS care, community pharmacists‘ general knowledge on HIV, and knowledge on transmission routes, are discussed below.

**Discriminatory attitudes on the social disease called HIV\AIDS**

Discrimination as operationally defined in this study is the biased or prejudicial treatment of persons diagnosed or perceived to be HIV positive in a less favourable or fairly manner by community pharmacists. HIV-related discrimination also refers to the unjust and unfair treatment of persons living with HIV. HIV-related discrimination is often based on stigmatising, prejudicial attitudes and beliefs about certain groups, population, sex, behaviour, practices, illness, and death (UNAIDS 2014:2). Discrimination can also be a response to prejudice (Wagner,Trevor, Hart, McShane, Margolese & Girard 2014:2405). HIV-related discrimination has been found to be one of greatest obstacles to effectively manage the epidemic and curbing behaviours that lead to increased HIV transmission (Dong, Yang, Peng, Pang, Zhang, Zhang, Rao,Wang & Chen 2018:1). Discrimination and other human rights violations might occur in health-care settings, preventing people from accessing health care.

HIV-related discrimination in health care settings can take many forms, including mandatory HIV testing without the consent of patients or counselling. Health workers may avoid or reduce contact with PLWHA, unnecessarily isolating patients with HIV/AIDS, delaying or denying them treatment, or even creating the demand for payment for services which are otherwise free (UNAIDS 2014:2). Discriminatory attitudes held by health providers may also lead them to make judgments about a person‘s HIV status, behavior, sexual orientation or gender identity, leading individuals to be treated without respect or dignity (UNAIDS 2017:4). Discrimination at the clinical care setting could also include denial of maternal health services, violation of patients‘ privacy and confidentiality, including disclosure of a patient‘s HIV status to family members or hospital employees without authorisation (UNAIDS 2017:3).

In a study in China, 77.7% of health workers exhibited acts of discrimination against PLWHA while administering them care (Don et al., 2018:6).The most common acts of discrimination were forced detection, differential treatment, disclosing information, and refusing treatment. A greater percentage (65.3%) of the health workers discriminated

against PLWHA by administering HIV antibody tests to them without their consent. More than 50% of the healthworkers gave differential treatment, and this was based on their HIV status of the patients. Forty-six percent (46.4%) of the health workers disclosed a patient‘s HIV status to a colleague who was not directly involved in the care of such patient, and 38.6% indicated they had refused to treat PLWHA in the past. Furthermore, it was noted that health workers give differential treatment and disclosed HIV status inorder to protect themselves by applying precautions when dealing with PLWHA (Don et al., 2018:6).

In Vietnam, a study conducted to investigate community pharmacists willingness to care for HIV infected individuals, Ishimaru et al. (2017:4) found that community pharmacists who have discriminatory attitudes and stigmatised attitudes towards HIV were less willing to provide care for individuals diagnosed with the viral infection.In Thailand, Pudong,Prakongsai,Srithanaviboonchai, Chariyalertsak, Smutraprapoot, Sirinirund and Nyblade (2014:1) found that over 80% of healthcare workers had at least one negative attitude to HIV, while 20% said they knew colleagues who were unwilling to provide care or provided substandard services to people living with HIV. A little over 34% of the participants were worried about contracting HIV through touching clothing and bedding belonging to PLWHA, while 18.4% reported seeing healthworkers refusing to render care to PLHWA in the past 12 months in their facility. About 31.8% of participants reported using unnecessary personal protection measures, such as wearing double gloves when interacting with people living with HIV. Twenty-five (25%) of people living with HIV surveyed said that they avoided seeking healthcare for fear of disclosure or poor treatment, while a third had their status disclosed without their consent.

Fear and worry of contracting the virus was a key contributing factor to discriminatory attitudes (Ekstrand, Ramakrishna & Heylen 2013:09; Don et al., 2018:6). According to Wada et al. (2016:3,4), anxiety regarding the potential risk of infection from people infected with HIV and a prejudicial attitude may influence the acceptance and willingness to care for infected patients. In their study, 41% of the community pharmacists felt reluctant to care for patients based on their HIV status.

At a tertiary hospital in KwaZulu-Natal, South Africa, 45.8% of the health worker said they hadwitnessed patients going through a mandatory HIV testing without their consent or the appropriate counselling during their preoperative phase of surgery. Fifty-one (51%) percent wore gloves for non-invasive procedures on HIV positive patients, while 9% had observed senior healthcare practitioners refer HIV infected patients to be seen by junior colleagues who are less experienced (Famoroti et al., 2013:6). A recent UNAIDS report on stigma and discrimination in 19 countriesshows that one in four people living with HIV have suffered discrimination in the hands of health workers and one in three women living with HIV have experienced at least one form of discrimination in their quest for sexual and reproductive health (UNAIDS 2017:1).

**Enzyme linked immunosorbent assay (ELISA) screening test:** This is the most widely used screening test for HIV infection. It is a test for HIV antibodies and does not detect the virus, therefore, a client may have a negative ELISA test result early in the course of infection before detectable antibodies have developed (Le Mone et al., 2000:299). This phenomenon is called the “diagnostic window” or “window period" (Busch & Satten 1997:117). Furthermore, false positives do occur; hence it is always necessary to do a confirmatory test which should be communicated to the patient intensively (Wolfgang et al., 2007:44).

**Confirmatory assay:** For confirmation of a positive or reactive test, a western blot antibody test or an immunofluorescence assay (IFT or IFA) is done (Wolfgang et al., 2007:44). According to Le Mone et al. (2000:299), this test is more reliable but more time consuming and more expensive than ELISA. During this test, the patient's serum is mixed with HIV proteins to detect a reaction. If antibodies to HIV are present, a detectable antigen-antibody response will occur (Le Mone et al., 2000:300).

**HIV nucleic acid testing (NAT):** It usually entails a Polymerase Chain Reaction (PCR). If done at birth, or from two weeks of age it will detect babies infected in utero or perinatally, therefore the recommended age for reliable HIV PCR testing in babies is ≥ 4 weeks (Wilson, Naidoo, Bekker, Cotton & Maartens, 2005:44). According to Wolfgang et al., (2000:45), this detection of a viral nucleic acid (viral genome) is laboratory tested from EDTA (ethylene diamine tetra acid) whole blood or EDTA plasma.

**Rapid tests:** Also known as the "bedside", "point of care" or "simple/rapid" test. This test is used when results are needed urgently, for example in emergencies. They are based on one of four immunodiagnostic principles: particle agglutination, immunodot (dipstick), immunofiltration or immunochromatography. The results are normally available within fifteen to thirty minutes. A capillary blood sample is obtained through venipunture (from a finger tip). A reagent is added on the drop of blood and a "built in" internal control detects if the reagent is sufficient; if this control shows up, the results should not be accepted. One band indicates a negative result while two indicate a positive result (excluding the control band) (Wolfgang et al., 2000:45).

**CD4 (Cluster of differentiation) cell count:** This is used to monitor the disease progress and guide treatment therapy (Le Mone et al., 2000:300; Newell 2004:4; Leroy 2007:6).

**AIDS (Acquired Immune Deficiency Syndrome)**

AIDS is disease of the human immune system caused by HIV and results in development of infections including opportunistic infections such as karposi sarcoma, candida albicans, cytomegalovirus, pneumocystis carinni and tumours that do not affect people with working immune systems (WHO 2009:4).

**WHO clinical staging of HIV/AIDS**

The clinical staging and case definition of HIV for resource-constrained regions is based on clinical findings that guide the diagnosis, evaluation, and management of HIV/AIDS, and does not require a CD4 cell count. This staging system is used in many countries to determine eligibility for antiretroviral therapy, particularly in settings in which CD4 testing is not available. Clinical stages are categorized as 1 through 4, progressing from primary HIV infection to advanced HIV/AIDS. These stages are defined by specific clinical conditions or symptoms (WHO 2009:5-6).

**MANAGEMENT STRATEGIES OF HIV/AIDS**

**Non-drug management of HIV**

According to the Department of Health in the Republic of South Africa (2006a:203), counselling is an extremely vital part of the successful care of children with HIV infection and their families. Specific matters requiring attention are:  The implications of the disease for the family  Implications of the treatment and understanding of the condition and its care. On completion of counselling, the family should be able to make informed decisions taking all this information into account. According to Fraser et al., (2008:667), a newly diagnosed pregnant woman must be offered intensive post-test counselling on the following aspects: effects of pregnancy on HIV infection, risk of transmission of HIV to foetus and newborn, option of termination of pregnancy, option for treatment in pregnancy and infant feeding. Other aspects include advantages and disadvantages of breastfeeding, disclosure of results to the male partner and family, the need for follow-up of both woman and child and future fertility management (Fraser et al., 2008:367).

**Drug management of HIV**

Currently, infants are given doses of antiretroviral prophylaxis. Antiretroviral therapies decrease the viral load. Such prophylaxis is designed to protect the uninfected infant while exposed to infection through breastfeeding. The regimes are taken during pregnancy, intrapartum and postnatally by mothers, as well as infants’ post-partum. In 2009, the South African National AIDS Council (SANAC) Treatment Technical Task Team (TTT), finalised recommendations for changes to the national standard treatment guidelines for adult and paediatric management and treatment, as well as changes in the prevention of the mother-to-child-transmission of HIV (PMTCT) guidelines, moving away from monotherapy to dual therapy. As announced on World Aids day 2009 by President Zuma, the changes to the guidelines were not to meet the Presidential mandates only, but to bring them in line with international recommendations and ensure the use of more efficacious drugs, including the phasing out of stavudine from the national antiretroviral (ART) programme (Serenata & Bekker, 2010:28). Pregnant women with a CD4 count less than 350 cells/µl meet the eligibility criteria to start antiretroviral therapy within two weeks of receiving their CD4 result and choosing to start lifelong antiretroviral therapy (ART). If the CD4 count is more than 350 cells/µl, these pregnant women follow the national PMTCT guidelines, namely:  Zidovudine from 14 weeks - oral, 300mg 12 hourly  Single-dose nevirapine (NVP) - oral, 200mg at onset of labour and zidovudine - oral, 300mg 3 hourly during labour to delivery  Tenofovir and emtricitabine single dose after delivery. If a woman presents in labour without having started either ART or the PMTCT regimen at 14 weeks, she should still receive the single-dose nevirapine and zidovudine 3-hourly and tenofovir and emtricitabine as per above (Serenata & Bekker 2010:28-30).

**2.2 THEORETICAL FRAMEWORK**

**Health Belief Model by Rosenstack et al (1950)**

The propounders of Health Belief Model were a group of psychologists Rosenstock, Becker, Fishben and Ajzen in 1950s. The rationale for this was to help explain people’s health behaviours. The Health Belief Model focuses on individual belief and knowledge of factors related to health problems. How individuals perceive the threat to their own health, how they judge severity and how they evaluate the cost and benefits of health services. Furthermore, Health Belief Model attempts to explain health behaviour in terms of individual decision making and proposes that the likelihood of a person adopting a given sexual or health related behaviour is a function of that individual’s perception of a threat to his personal health, and his belief that the recommended behaviour will reduce this threat. What this implies is that a person would be more likely to adopt a given attitude and behaviour in a situation where non-adoption of such is perceived as a health threat and adoption is seen as reducing threat. In the view of Becker the HBM can be outlined using four constructs which represent the perceived threat and net benefits of a particular behaviour.

- Perceived susceptibility, a person’s opinion of the chances of getting certain condition.

- Perceived severity, a person’s opinion of how serious the condition is.

- Perceived benefits, a person’s opinion of the effectiveness of some advised action to reduce the risk or seriousness of the impact, and

- Perceived barriers, a person’s opinion of the concrete and psychological cost of this advised action. Another concept in the Health Belief Model is known as cues to action. These are events (internal and external) which can activate a person’s readiness to act and stimulate an observable behaviour.

Another factor seen as vital is the concept of self-efficacy in relation to performing the behaviour. Self-efficacy a concept originally developed by Albert Bandura in social cognitive theory is simply a person’s confidence in his or her ability to successfully perform an action. Even though the HBM was originally developed to help explain certain health related behaviours, it has also helped to guide the search for ‘why’ these behaviours occur and to identify points for possible change.

**AIDS Risk Reduction Model (Catania, 1990)**

This theory was specifically developed by Catania, (1990) for understanding risk behaviour to a healthy one related to AIDS transmission. It recognizes that changing high-risk behaviour is the only means of preventing transmission of HIV and AIDS. Three stages are identified as necessary; an individual must traverse themselves to reduce or change sexual activities that place him/her at risk of acquiring HIV and AIDS. This requires the individual identifying and labeling activities as risky. This has three components: first, knowledge of Modes of transmission and Personal appraisal of the risk of acquiring it. unless one judges oneself as personally vulnerable to contracting AIDS, the individual will not label their behaviour as risky and an individual’s reference group opinion of what constitutes risky sexual practices could affect that person’s view of his/her behaviour.

The second stage of AIDS Risk Reduction Model, States that commitment to engaging in low risk activities will be enhanced by the potential threat to social norms governing the health promoting behaviours. These considerations span through a wide spectrum of non health related realities.

The final stage hypothesizes that the enactment of the behaviour depends on one sexual communication abilities with ones sexual partner(s).Unless an individual is able to communicate convincingly to his/her partner the choice he /she has made for low-risk behaviour, such a one will not be able to act on her intentions and commitments (Catania, 1990).

**Self perception theory of Attitude – Bem 1967**

Self-perception theory (SPT) is an account of attitude formation developed by psychologist Daryl Bem (1967). It asserts that people develop their attitudes by observing their own behaviour and concluding what attitudes must have caused it. The theory is counterintuitive in nature, as the conventional wisdom is that attitudes determine behaviours. Furthermore, the theory suggests that people induce attitudes without accessing internal cognition and mood states. The person interprets their own overt behaviours rationally in the same way they attempt to explain others’ behaviours. In an attempt to decide whether individuals induce their attitudes as observers without accessing their internal states, Bem used interpersonal simulations, in which an “observer-participant” is given a detailed description of one condition of a cognitive dissonance experiment. Subjects listened to a tape of a man enthusiastically describing a tedious peg-turning task. Some subjects were told that the man had been paid $20 condition. The results obtained were similar to the original Festinger-Carlsmith experiment. Because the observers, who did not have access to the actors’ internal cognition and mood states, were able to infer the true attitude of the actors, it is possible that the actors themselves also arrive at their attitudes by observing their own behaviour. Specifically, Bem notes how “the attitude statements which comprise the major dependent variables in dissonance experiments may be regarded as interpersonal judgements in which the observer and the observed happened to be the same individual”. Bem used a series of employed self-perception theory to try to reduce anxiety in heterosocially anxious or shy college students. The study conducted by an interaction among members of the opposite sex in order to overcome their shyness by attributing their successful outcomes to themselves and their own behaviour. The results indicate that the treatment is highly effective for both sexes. Also, the effects are fairly permanent and subjects find it enjoyable. Furthermore, the treatment is not a result of the subject-expectancy effect.

**CHAPTER THREE**

**RESEARCH METHODOLOGY**

**3.1 INTRODUCTION**

In this chapter, we described the research procedure for this study. A research methodology is a research process adopted or employed to systematically and scientifically present the results of a study to the research audience viz. a vis, the study beneficiaries.

**3.2 RESEARCH DESIGN**

Research designs are perceived to be an overall strategy adopted by the researcher whereby different components of the study are integrated in a logical manner to effectively address a research problem. In this study, the researcher employed the survey research design. This is due to the nature of the study whereby the opinion and views of people are sampled. According to Singleton & Straits, (2009), Survey research can use quantitative research strategies (e.g., using questionnaires with numerically rated items), qualitative research strategies (e.g., using open-ended questions), or both strategies (i.e., mixed methods). As it is often used to describe and explore human behaviour, surveys are therefore frequently used in social and psychological research.

**3.3 POPULATION OF THE STUDY**

According to Udoyen (2019), a study population is a group of elements or individuals as the case may be, who share similar characteristics. These similar features can include location, gender, age, sex or specific interest. The emphasis on study population is that it constitute of individuals or elements that are homogeneous in description.

This study was carried out on an investigation and possible solution of hiv/aids as a social disease in tertiary institutions in Nigeria, using University of Lagos(UNILAG) and Lagos state University(LASU), Lagos State as a case study. Staff and students of the selected University form the population of the study.

**3.4 SAMPLE SIZE DETERMINATION**

A study sample is simply a systematic selected part of a population that infers its result on the population. In essence, it is that part of a whole that represents the whole and its members share characteristics in like similitude (Udoyen, 2019). In this study, the researcher adopted the convenient sampling method to determine the sample size.

**3.5 SAMPLE SIZE SELECTION TECHNIQUE AND PROCEDURE**

According to Nwana (2005), sampling techniques are procedures adopted to systematically select the chosen sample in a specified away under controls. This research work adopted the convenience sampling technique in selecting the respondents from the total population.

In this study, the researcher adopted the convenient sampling method to determine the sample size. Out of all the entire population of Staff and students of the selected University , the researcher conveniently selected 266 out of the overall population as the sample size for this study. According to Torty (2021), a sample of convenience is the terminology used to describe a sample in which elements have been selected from the target population on the basis of their accessibility or convenience to the researcher.

**3.6 RESEARCH INSTRUMENT AND ADMINISTRATION**

The research instrument used in this study is the questionnaire. A survey containing series of questions were administered to the enrolled participants. The questionnaire was divided into two sections, the first section enquired about the responses demographic or personal data while the second sections were in line with the study objectives, aimed at providing answers to the research questions. Participants were required to respond by placing a tick at the appropriate column. The questionnaire was personally administered by the researcher.

**3.7 METHOD OF DATA COLLECTION**

Two methods of data collection which are primary source and secondary source were used to collect data. The primary sources was the use of questionnaires, while the secondary sources include textbooks, internet, journals, published and unpublished articles and government publications.

**3.8 METHOD OF DATA ANALYSIS**

The responses were analyzed using the frequency percentage tables, which provided answers to the research questions.

**3.9 VALIDITY OF THE STUDY**

Validity referred here is the degree or extent to which an instrument actually measures what is intended to measure. An instrument is valid to the extent that is tailored to achieve the research objectives. The researcher constructed the questionnaire for the study and submitted to the project supervisor who used his intellectual knowledge to critically, analytically and logically examine the instruments relevance of the contents and statements and then made the instrument valid for the study.

**3.10 RELIABILITY OF THE STUDY**

The reliability of the research instrument was determined. The Pearson Correlation Coefficient was used to determine the reliability of the instrument. A co-efficient value of 0.68 indicated that the research instrument was relatively reliable. According to (Taber, 2017) the range of a reasonable reliability is between 0.67 and 0.87.

**3.11 ETHICAL CONSIDERATION**

he study was approved by the Project Committee of the Department. Informed consent was obtained from all study participants before they were enrolled in the study. Permission was sought from the relevant authorities to carry out the study. Date to visit the place of study for questionnaire distribution was put in place in advance.

**CHAPTER FOUR**

**DATA PRESENTATION AND ANALYSIS**

**INTRODUCTION**

This chapter presents the analysis of data derived through the questionnaire and key informant interview administered on the respondents in the study area. The analysis and interpretation were derived from the findings of the study. The data analysis depicts the simple frequency and percentage of the respondents as well as interpretation of the information gathered. A total of two hundred and sixty-six (266) questionnaires were administered to respondents of which only two hundred and fifty-nine (259) were returned and validated. This was due to irregular, incomplete and inappropriate responses to some questionnaire. For this study a total of 259 was validated for the analysis.

**4.1 DATA PRESENTATION**

**Table 4.1: Demographic profile of the respondents**

|  |  |  |
| --- | --- | --- |
| **Demographic information** | **Frequency** | **percent** |
| **Gender**  Male |  |  |
| 72 | 27.8% |
| Female | 187 | 72.2% |
| **Age** |  |  |
| 20-25 | 33 | 12.7% |
| 25-30 | 56 | 21.6% |
| 31-35 | 87 | 33.6% |
| 36+ | 83 | 32.0% |
| **Marital Status** |  |  |
| Single | 71 | 27.4% |
| Married | 102 | 39.4% |
| Separated | 67 | 25.9% |
| Widowed | 19 | 7.3% |
| **Education Level** |  |  |
| WAEC | 56 | 21.6% |
| BS.c | 62 | 23.9% |
| MS.c | 67 | 25.9% |
| MBA | 74 | 28.6% |

**Source: Field Survey, 2021**

**Source: Field Survey, 2021**

**4.2 DESCRIPTIVE ANALYSIS**

**Question 1:**  Is the public aware of the HIV/AIDS disease?

**Table 4.2: respondent on question 1**

|  |  |  |
| --- | --- | --- |
| **Options** | **Frequency** | **Percentage** |
| Yes | 120 | 45.45 |
| No | 54 | 25.97 |
| Undecided | 85 | 28.57 |
| **Total** | **259** | **100** |

**Field Survey, 2021**

From the responses obtained as expressed in the table above, 45.45% of the respondents said yes, 25.97% said no. While 28.57% of the respondent were undecided .

**Question 2:** Do they (the public) know of its existence?

**Table 4.3: Respondent on question 2**

|  |  |  |
| --- | --- | --- |
| **Options** | **Frequency** | **Percentage** |
| Yes | 150 | 58.44 |
| No | 49 | 19.48 |
| Undecided | 60 | 22.07 |
| **Total** | **259** | **100** |

**Field Survey, 2021**

From the responses obtained as expressed in the table above, 58.44% of the respondents said yes, 19.48% said no , while 22.07% were undecided.

**Question3:**Do they know any person living with HIV/AIDS?

**Table 4.4: Respondent on question 3**

|  |  |  |
| --- | --- | --- |
| **Options** | **Frequency** | **Percentage** |
| Yes | 180 | 38.96 |
| No | 39 | 25.97 |
| Undecided | 40 | 35.06 |
| **Total** | **259** | **100** |

**Field Survey, 2021**

From the responses obtained as expressed in the table above, 38.96% of the respondents said yes, 25.97% said no, while 35.06% were undecided.

**Question 4:**  Is the public aware of its causes, signs and symptoms?

**Table 4.5: Respondent on question 4**

|  |  |  |
| --- | --- | --- |
| **Options** | **Frequency** | **Percentage** |
| Yes | 165 | 51.94 |
| No | 40 | 19.48 |
| Undecided | 55 | 28.57 |
| **Total** | **259** | **100** |

**Field Survey, 2021**

From the responses obtained as expressed in the table above, 51.94% of the respondents said yes, 19.48% said no , while 28.57% were undecided.

**Question5:** Do they guard against the disease?

**Table 4.6: Respondent on question 5**

|  |  |  |
| --- | --- | --- |
| **Options** | **Frequency** | **Percentage** |
| Yes | 200 | 38.96 |
| No | 10 | 25.97 |
| Undecided | 49 | 35.06 |
| **Total** | **259** | **100** |

**Field Survey, 2021**

From the responses obtained as expressed in the table above, 38.96% of the respondents said very adequately, 25.97% said not adequately, while 35.06% were undecided.

**CHAPTER FIVE**

**SUMMARY, CONCLUSION AND RECOMMENDATION**

**5.1 SUMMARY**

In this study, our focus was on an investigation and possible solution of hiv/aids as a social disease in tertiary institutions in Nigeria using University of Lagos(UNILAG) and Lagos state University(LASU) as a case study**.** The purpose of this study is to provide adequate account on the widespread of HIV/AIDS,. As a result, determining its occurrence and estimation of the level of awareness, the causes and effects will also be unveiled. A total of 259 responses were validated from the enrolled participants where all respondent are drawn from staff and students of UNILAG and LASU.

**5.2 CONCLUSION**

Based on the finding of this study, the following conclusions were made:

1. The public aware of the HIV/AIDS disease

2.   They (the public) know of its existence of HIV\AIDS

3.   some people know any person living with HIV/AIDS

4.   The public aware of its causes, signs and symptoms

5.   The public guard against the disease

**5.3 RECOMMENDATION**

Based on the responses obtained, the researcher proffers the following recommendations:

1. University students should avoid sharing, especially sharp object like razor blade, clipper, shaving stick etc to avoid contracting HIV\AIDS.
2. Awareness should be created on Hiv\aids by school authority.

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**APPENDIXE**

**QUESTIONNAIRE**

**PLEASE TICK [√] YOUR MOST PREFERRED CHOICE(S) ON A QUESTION.**

**SECTION A**

**PERSONAL INFORMATION**

Gender

Male ( )

Female ( )

Age

20-25 ( )

25-30 ( )

31-35 ( )

36+ ( )

Marital Status

Single ( )

Married ( )

Separated ( )

Widowed ( )

Education Level

WAEC ( )

BS.c ( )

MS.c ( )

MBA ( )

**SECTION B**

**Question 1:**  Is the public aware of the HIV/AIDS disease?

|  |  |
| --- | --- |
| **Options** | **Please tick** |
| Yes |  |
| No |  |
| Undecided |  |

**Question 2:** Do they (the public) know of its existence?

|  |  |
| --- | --- |
| **Options** | **Please tick** |
| Yes |  |
| No |  |
| Undecided |  |

**Question3:**Do they know any person living with HIV/AIDS?

|  |  |
| --- | --- |
| **Options** | **Frequency** |
| Yes |  |
| No |  |
| Undecided |  |

**Question 4:**  Is the public aware of its causes, signs and symptoms?

|  |  |
| --- | --- |
| **Options** | **Please tick** |
| Yes |  |
| No |  |
| Undecided |  |

**Question5:** Do they guard against the disease?

|  |  |
| --- | --- |
| **Options** | **Please tick** |
| Yes |  |
| No |  |
| Undecided |  |