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DEPARTMENT OF NURSING

DIPLOMA PROGRAMMES

ASSESSING THE KNOWLEDGE OF PREGNANT WOMEN ATTENDING ANTENATAL CLINIC AT HOLY FAMILY HOSPITAL ON THE PRACTICE OF PMTCT

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2024

DECLARATION

We hereby declare that this submission is our own work towards the Diploma in Registered Midwifery and that, to the best of our knowledge, it contains no material previously published by another person nor material which has been accepted for the award of diploma of the University, except where due acknowledgement has been made in the text.

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ABSTRACT

Purpose: The study aims to describe the knowledge, attitudes and practices about PMTCT of HIV/AIDS among pregnant women attending antenatal clinic at Bono Regional Hospital.

Methodology: A descriptive exploratory design study design was adopted. Simple random sampling technique was used in the selection of the participants during the data collection period. A total of 50 respondents were selected. A structured questionnaire was used as the primary method of data collection.

Finding: The results showed that a huge percentage 96% of the respondents had heard of PMTCT. 78% (n39) said HIV can be transmitted from a mother to her baby, 12% (n6) were not sure, 6% (n3) did not know about transmission of HIV from mother to the baby and 4% (n2) said it cannot happen. The study found that 54% of the respondents mentioned health provider as their source of information on PMTCT. 72% (n36) mentioned that pregnant women should take drugs before delivery/during labour followed by HIV testing and counseling of pregnant women 28% (n14), delivery by caesarean section 20% (n10) among other actions. 98% (n49) had had HIV test whiles 2% (n1) had not had the test. 64% (n32) said they do not have HIV test every three months whiles 36% (n18) said they do. 96% (n48) of the respondents were said they were offered PMTCT counselling by a staff upon arrival at the hospital. Out of those who were offered PMTCT counselling by a staff, 93.8% (n45) said they have been convinced to use PMTCT services.

Conclusion: The study found that respondents had moderate knowledge on PMTCT of HIV/AIDS. Regarding PMTCT practice, it was found that almost all respondents (98.5%) had undergone an HIV test and the majority.

Recommendation: It is recommended that MoH should strengthen mass media campaigns to improve the knowledge and positive attitude of people towards the PMTCT program

TABLE OF CONTENT

LIST OF TABLES

LIST OF FIGURES

ABBREVIATION

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ART	Antiretroviral therapy
ARV	Antiretroviral
CD4	T-lymphocyte cell bearing CD4 receptor
HAART	Highly Active Antiretroviral Therapy
HIV	Human Immune-deficiency Virus
MoH	Ministry of Health
MTCT	Mother-To-Child Transmission
PMTCT	Prevention of Mother-To-Child Transmission
SPSS	Statistical Package for the Social Sciences
STI	Sexually transmitted infections

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Human Immune Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) is a worldwide problem and despite all efforts being made to control its spread, it is becoming the main cause of death among the highly productive and reproductive members of society (Gadegbeku, Saka, & Mensah, 2019). HIV/AIDS is a major source of concern all over the world as it constitutes a major source of death and a threat to national development. The virus has negative impacts on economic, social and political development of any nation (Yahaya, Jimoh, & Balogun, 2014).

HIV/AIDS is a dangerous virus which destroys the body's immune system. It leads to a progressive loss of a specific type of immune cell called T-helper, or CD4 cells. As the virus multiplies in the body, it damages or kills the cells and weakens the immune system leaving the infected person vulnerable to various opportunistic infections and other illnesses (Yahaya et al., 2014).

The HIV pandemic still remains an issue of major concern on a global scale. A total of 35.3 million people are living with HIV; of these, an estimated 2.3 million are newly infected.1 Sub-Saharan Africa contributes more than two-thirds (69%) of the global infected population. Children under the age of 15 account for 3.4 million of the global number of infected, while sub-Saharan Africa alone contributes to 90% of this burden (USAIDS, 2015).

HIV infection transmitted from an HIV-infected mother to her child during pregnancy, labour, delivery or breastfeeding is known as mother-to-child transmission (MTCT). The prevention of mother-to-child transmission (PMTCT) is a highly effective intervention and has huge potential to improve both maternal and child health (World Health Organization, 2011).

The most significant source of HIV infection in children and infants is transmission of HIV from mother to child during pregnancy, childbirth, or breastfeeding (World Health Organization, 2011). Without intervention HIV transmission rate is estimated to be between 5% to 10% during pregnancy, 10% to 15% during delivery and 5% to 20% during breastfeeding (Birhane, Assefa, Addis, & Dadi, 2015).

In 2019 an estimated 150,000 children became newly infected with HIV (although this represented a decrease from 280,000 in 2010), and only 85 per cent of pregnant women living with HIV were on antiretroviral therapy (UNODC, 2021). The human immunodeficiency virus (HIV) continues to be a major cause of maternal and infant mortality and morbidity in sub-Saharan Africa (Vieira, et al., 2017).

A study in South Africa reported that knowledge of pregnant women about PMTCT was moderate, but there were some gaps found in their basic knowledge about HIV/AIDS. Moreover, their knowledge was significantly dependent on their age and education level. On

the other hand, the majority had a good attitude and practice towards the PMTCT program (Haghdoost, 2015).

In Ethiopia there are over 100,000 pregnancies in HIV positive women and over 12,000 children were born HIV positive (Tigabu & Dessie, 2018). A study in Southern Ethiopia found that (92.8%) knew about mother-to-child transmission (MTCT), (83.5%) of them knew about PMTCT of HIV/AIDS, (93.3%) had positive attitude towards PMTCT of HIV/AIDS and all of the respondents had practiced PMTCT. The study revealed that the level of knowledge, attitude and practice towards PMTCT of HIV/AIDS was high among the study participants. However, there was still misunderstanding regarding to PMTCT and involvement of male or testing of partner during ANC follow up which was not satisfactory (Tigabu & Dessie, 2018).

The programmes for the PMTCT of HIV include Antenatal HIV testing and counselling, avoiding unintended pregnancy, provision of appropriate ARV regimen for mothers and newborns, and support for safer infant feeding options and practices (World Health Organization, 2018). Ghana is striving towards achieving the zero new infections target for HIV. Even though there was significant progress towards the country's target in the reduction of new infections among children to less than 5%, much work remained to be done (Ghana AIDS Commission, 2020).

The concept of PMTCT interventions in Ghana is to integrate PMTCT into the health services at all levels where intervention programmes can be undertaken to reduce the risk of HIV transmission from the mother-to-child, enhance early case detection and treatment of those infected and keep those who are HIV-negative uninfected (Ghana Health Service, 2014).

Almost all HIV-positive children acquire infection through mother-to-child transmission (MTCT) of HIV. Successful intervention toward prevention of mother-to-child transmission (PMTCT) and achieving the goal of eliminating the new HIV infection is highly dependent on everyone; especially, women of child-bearing age should have accurate and up-to-date knowledge about HIV transmission, risk of transmission to babies, and possible interventions. It is against this background that this study will be conducted to assess the knowledge of pregnant women attending antenatal clinic at Holy Family Hospital on the practice of PMTCT.

1.2 Problem Statement

Globally about 2.3 million HIV positive women get pregnant annually and 700,000 children are born infected from their parents (Tigabu & Dessie, 2018). The risk of an infant acquiring the virus from an infected mother ranges from 25-35% worldwide. Mother to child transmission of HIV in cohorts of women who have not received any preventive treatment ranges from 15%-25% in industrialized countries to 25%-45% in developing countries (WHO, 2017). The overall risk can be reduced to less than 2% by implementing PMTCT program. Inadequate knowledge on PMTCT services by clients, illiteracy, lack of adequate information on the benefit of PMTCT services and unfavorable attitude are affecting utilization of PMTCT services (Tigabu & Dessie, 2018).

A study carried out in a sub-Saharan African region found insufficient knowledge, attitude and practices in the prevention of MTC transmission of HIV among the majority of health personnel in the region. The study concluded that this lack of knowledge in prevention can therefore contribute to the rise of the mother-to-child transmission rate of HIV (Nkwabong, Nguel, Kamgaing, & Jippe, 2018).

A study in the Ashanti region of Ghana reported that having adequate knowledge of PMTCT is critical in reducing MTCT of HIV. Inadequate knowledge, lack of understanding of practices and poor attitudes could be major impediments to the success of PMTCT intervention (Nyarko, Pencille, Akoku, & Tarkang, 2019).

The human immunodeficiency virus (HIV) continues to be a major cause of maternal and infant mortality and morbidity in sub-Saharan Africa. Prevention of mother-to-child transmission of HIV (PMTCT) strategies have proven effective in decreasing the number of children infected in utero, intrapartum and during the breastfeeding period (Vieira, et al., 2017). Vieira et al. (2017) in their studies found that among women who had been tested for HIV, awareness and knowledge of HIV and PMTCT remained low. It is in this light that this study will seek to assess the knowledge of pregnant women attending antenatal clinic at Holy Family Hospital on the practice of PMTCT,

1.3 Objectives of the study

To assess the knowledge of pregnant women attending antenatal clinic at Holy Family Hospital on the practice of PMTCT.

1.4 Specific Objectives

Objectives of this study will include:

1. To examine the knowledge of pregnant mothers regarding PMTCT of HIV/AIDS.
2. To determine the attitude of pregnant mothers towards PMTCT of HIV/AIDS.
3. To investigate the practices of pregnant mothers about PMTCT of HIV/AIDS.

1.5 Operational Definition of Terms

Attitude: A settled way of thinking or feeling about someone or something, typically one that reflects in a person's behaviour. Attitude can be formed from a person's past and present

Antenatal care clinic: The clinic that offers antenatal services to women while they are pregnant.

Knowledge: awareness and information about a subject at hand

Practice: The actual application or use of an idea, belief, or method as opposed to theories about such application or use.

Pregnancy: The period from conception to birth. Pregnancy is usually about 40 weeks, starting from the first day of the woman's last menstrual period, and is divided into three trimesters, each lasting three months.

CHAPTER TWO

LITERATURE REVIEW

2.1 Knowledge Regarding PMTCT of HIV/AIDS

Improving knowledge on MTCT and PMTCT of HIV among populations at higher risk of HIV infection is essential in implementing comprehensive HIV responses like ARV prophylaxis for children who will be born from HIV-exposed mothers, initiating ART drugs for mothers based on option B+ rules, and preventing extended pregnancies (Abraham & Clow, 2022).

An institution-based cross-sectional study was conducted among pregnant mothers attending antenatal care clinic at Ambo General Hospital, Ethiopia. A systematic random sampling technique was used to select 238 antenatal care attendees. Data were collected through structured pre-tested questionnaire. The data were entered into Epi Info and analyzed by

using SPSS software for windows. The study showed that all of the respondents heard about HIV/AIDS and about MTCT of HIV. Concerning the time of transmission of the virus from the infected mother to her child, 74 (31.4%) responded that it could be through breast feeding, 69 (29.2%) during pregnancy, 6 (27.5%) during labor and 2 (11.9%) did not know respectively (Tesfaye et al., 2015).

A community based cross-sectional study was conducted in Meket district, northeast Ethiopia. Data were collected using pretested, structured, and interviewer administered questionnaire. The study revealed that one hundred sixty-one (19.7%) were pregnant for the first time. More than half (57.6%) had ANC during their current pregnancy. Nearly two-thirds (63.8%) had received information about HIV/AIDS from health care providers. Half (51.8%) of the respondents received information about HIV, antenatal care (65.7%), mother-to-child transmission of HIV (40.6%), and infant feeding with their partners (21.4%). One hundred three (19%) (95% CI: 15.5%, 22.4%) were knowledgeable on MTCT of HIV. Most (84.5%) heard about mother to child transmission of HIV. Among those who heard MTCT, more than two-thirds (70.7%) mentioned labor/delivery as a time of HIV transition from mother to child. The study concluded that knowledge of mother-to-child transmission of HIV among pregnant women was low. Providing information, especially for rural women and their partners, is highly recommended (Birhane et al., 2015).

A facility-based cross-sectional study was conducted involving 398 pregnant women who attended antenatal care services at governmental health institutions in Ethiopia. Systematic sampling method was used to select study participants. The study found that 222 (57.5%) of them had full knowledge about the three critical modes of HIV transmission from mother to child, but only 67 (17.4%) knew the possible prevention methods. A small proportion (17.5%) of mothers knew that PMTCT of HIV could be prevented by use of ARV drugs, by

only breastfeeding up to 6 months, and safe delivery. Knowledge on MTCT of HIV was positively associated with women who had sufficient knowledge on HIV/AIDS. The study concluded that knowledge on MTCT and its prevention among women is low in the study area. It is recommended that efforts needs to be made on improving women's knowledge of PMTCT of HIV (Abtew et al., 2016).

A cross-sectional descriptive study was conducted among 241 Primary Health Care (PHC) workers. The study aimed at assessing the knowledge and practices regarding prevention of mother-to-child transmission of HIV. The study found that about two-thirds (62.6%) of respondents have attended a training workshop on prevention of mother-to-child transmission (PMTCT) of HIV infection. Only about two-thirds (63.5%) of respondents had good knowledge of MTCT of HIV and its prevention. The methods most commonly known to the respondents for prevention of MTCT were delivery by cesarean section (66.8%), avoiding procedures that increase risk of MTCT of HIV (66.4%), and HIV testing and counseling of pregnant women (63.5%) (Arisegi et al., 2017).

An institutional based cross-sectional study was conducted in Ethiopia. Data was collected by face to face interview using structured and pretested questionnaire filled for respondent. The study found that majority 208 (94.5%) of the respondents reported that they have heard about HIV/AIDS. Among those respondents 29.1% of them knew all the major routes of transmission thus are unsafe sexual practice, blood contact and MTCT. About 40% mentioned two major routes of transmission, while only 30% of them mentioned one major routes of transmission. Among the major route of transmission, unsafe sex was mentioned as one route of HIV transmission by 99.5% of respondents and 97.7% mentioned blood contact and MTCT of HIV was mentioned as a route of transmission by 37.1%. From all respondents 110 (47.8%) said that HIV positive mothers can reduce MTCT transmissions, around

45(19.6%) of them think that there is no ways of reducing risk of MTCT and 32.6% of are not understanding MTCT of HIV/AIDS.

A cross sectional study was conducted in Ethiopia to identify knowledge on prevention of mother-to-child transmission of HIV in pregnant women. The study found that 52% of the pregnant women had comprehensive knowledge on prevention of mother-to-child transmission of HIV. The study concluded that proportion of women, who have comprehensive knowledge on prevention of mother-to-child transmission of HIV in this study, was low. Measures, which will escalate mother's knowledge on prevention of mother-to-child transmission of HIV, should be emphasized. Efforts to improve mother's knowledge on prevention of mother-to-child transmission of HIV should target women who are older age (> =35years), live in rural, unemployed, not attending formal education, primigravids, have no favored attitude towards HIV positive living and have not perceived susceptibility to HIV (Alemu et al., 2018).

Institution based cross sectional study was conducted in Ethiopia. The study assessed knowledge, attitude and practice towards prevention of mother to child transmission of HIV among male partner of pregnant women. The study found that 46.2% of the respondents had good knowledge. But, only 16.3 the respondents had poor knowledge. Majority of the respondents were knowing that HIV can be transmitted from mother to child during pregnancy, 303 (74.8%). Majority of the respondents were known HIV can be transmitted from mother to child during breast feeding, 324 (80%). Majority of the respondents didn't know HIV cannot be transmitted from mother to child by sleep together, 217 (53.6%). Most 285(70.4%) knew that giving Anti Retro Viral drugs to the mother and the child reduce the chance of transmission of HIV from mother to her child. Majority of the respondents said they think that PMTCT program is important, 315(77.8%) (Aniley, 2020).

A hospital-based cross-sectional study was conducted in Dil Chora Referral Hospital, Ethiopia among 242 pregnant women. The simple random sampling method was used to collect the data and respondents were interviewed face to face by using a standard and structured questionnaire. The study found that two-third (66.7%) of the pregnant women had good knowledge and the remaining one-third (33.3%) had poor knowledge towards mother to child transmission of HIV/AIDS and its prevention. All of the respondents heard about HIV/AIDS and more than half of them (52.9%) got information from mass media. The majority of the women [232 (95.9%)] knew at least one way of HIV transmission methods and [236 (97.5%)] knew at least one way of HIV prevention methods. Of the 236 respondents (who knew about prevention methods), 201 (85.1%) of them responded that condom use is one of the methods to prevent HIV transmission. One hundred sixty-six (70.3%) of the respondents knew condom has an advantage for the prevention of HIV from mother to her baby. Of these respondents, 97.5% knew that condoms were used to protect the mother from being infected by HIV, 95.8% to decrease the risk of having HIV infected baby, and 95.8% to prevent unwanted pregnancy and STI. All of the respondents knew that HIV transmits from mother to child. Concerning the time of transmission of the virus from the infected mother to her child, 194 (80.2%) responded that it could be during pregnancy, 168 (69.4%) during labor and delivery, 172 (71.9%) through breastfeeding, and 48 (19.8%) during care provision. From all respondents, the majority of them (98.8%) replied that testing of HIV has an advantage for PMTCT. Of these mothers, 96.2% said that to know the status, 92.1% to start ART drug early if the result is positive and 73.2% to protect others. Concerning HIV/AIDS medication, 206 (85%) of women knew ART drugs given to HIV-positive pregnant mothers to reduce risk of HIV transmission. Two hundred seventeen (89.7%) of women knew that the risk of MTCT of HIV was prevented by providing ART during pregnancy, by cesarean section delivery 8 (36.4%) and by providing ART drugs to the newborn 117 (48.3%). But,

only half of them (50.8%) knew ART prophylaxis could be started in the first trimester, and 45% of them do not remember when it started (Cherie et al., 2022).

A cross-sectional study collected qualitative data from 152 pregnant women registered in the health facilities in Taungoo township, Myanmar. The study showed that the pregnant women studied had good awareness (56.6%) on PMTCT services. 61.2% of the study pregnancies were aware of PMTCT activities, 49.3% were aware of HIV counselling services, 98.7% were aware of HIV testing services at the healthcare facilities and 78.3% knew that a baby can be preventable from vertical transmission of HIV. When assessing four main ways of HIV transmission, the responses of the study pregnancies were sexual contact with an HIVinfected person (79.6%), sharing HIV-infected needles (70.6%), transfusion of HIV infected blood (71.1%), and vertical transmission from HIV-infected mother to child (69.7%). In the exploration of time to transmit HIV from mother to child, the study pregnancies responded that an HIV-infected mother can transmit HIV to her baby during pregnancy (69.7%), childbirth (67.8%) and breastfeeding (68.4%). The study concluded that respondents had high knowledge on PMTCT services (Han & Tun, 2022).

2.2 Attitude Towards PMTCT of HIV/AIDS

An institution-based cross-sectional study was conducted among pregnant mothers attending antenatal care clinic at Ambo General Hospital, Ethiopia. A systematic random sampling technique was used to select 238 antenatal care attendees. Data were collected through structured pre-tested questionnaire. The data were entered into Epi Info and analyzed by using SPSS software for windows. The study showed that all most of the respondents, 221 (93.6%), had good attitude towards PMTCT of HIV, while only 6.4 (28.73%) had poor attitude. Majority of the respondents, 169 (71.6%) have shown their willingness to support their spouses that tested positive for HIV. Most of the respondents, 229 (97.10%), would

agree to VCT, and only 7 (2.9%) would not agree. All most all of them would agree that HIV positive mother should get ART during pregnancy to reduce risk of transmission of HIV to her child (Tesfaye et al., 2015).

Institution based cross sectional study was conducted in Ethiopia. The study assessed knowledge, attitude and practice towards prevention of mother to child transmission of HIV among male partner of pregnant women. The study found that 55.6% of the respondents had positive attitude and 44.4% had negative attitude towards MTCT and PMTCT. 372(91.8%) of the respondents agreed that every pregnant women gets tested for HIV with her partner. And also 269(66.4%) of the respondents agreed that it is better to live with unknown HIV status than live depressed with positive HIV status known. Majority 348(86%) of the respondents cited that even if couple believe they are faithful to each other they should be tested for HV together during ANC follow up for the sake of PMTCT (Aniley, 2020).

A hospital-based cross-sectional study was conducted in Dil Chora Referral Hospital, Ethiopia among 242 pregnant women. The simple random sampling method was used to collect the data and respondents were interviewed face to face by using a standard and structured questionnaire. A good attitude has been observed among a majority of the respondents (71%) towards the prevention of mother-to-child transmission of HIV/AIDS. The study found that Around one-third of the respondents [83 (34.3%)] fear testing HIV/AIDS due to fear of social isolation after the result. However, all of the respondents agreed that every pregnant woman gets tested for HIV and if a woman is infected with HIV, then she should not get pregnant again. All mothers support ANC follow-up and PMTCT strategies. Again, most respondents had a good attitude towards protective methods for mother-to-child transmission of HIV/ AIDS. Two hundred six (85.1%) of respondents agreed that using protective gears (condoms) during pregnancy and breastfeeding can reduce

mother-to-child transmission of HIV/AIDS, respectively. Others [238 (98.3%)] agreed that Obstetric care during labor and delivery reduces mother-to-child transmission of HIV/AIDS (Cherie et al., 2022).

A cross-sectional study collected qualitative data from 152 pregnant women registered in the health facilities in Taungoo township, Myanmar. The study showed that 98.02% agreed that every pregnant woman should be tested for HIV, 57.8% agreed that HIV testing during pregnancy is important and valuable for both mother and child, 49.3% agreed that HIV counselling should be received before HIV testing, 61.2% agreed that a baby can be prevented from HIV transmission of his/her HIV-infected mother, and 55.9% agreed that the husbands should participate in the PMTCT services. In the agreement on the vertical transmission of HIV, the study pregnancies stated their agreement that vertical transmission can occur during pregnancy (71.1%), childbirth (69.7%) and breastfeeding (68.4%). The study revealed that 89.5% had a favourable attitude that taking adequate PMTCT services can reduce the risk of vertical transmission of HIV from HIV-positive mother to child (Han & Tun, 2022).

2.3 Practices about PMTCT of HIV/AIDS

An institution-based cross-sectional study was conducted among pregnant mothers attending antenatal care clinic at Ambo General Hospital, Ethiopia. A systematic random sampling technique was used to select 238 antenatal care attendees. Data were collected through structured pre-tested questionnaire. The data were entered into Epi Info and analyzed by using SPSS software for windows. The study showed that all the respondents have been tested for HIV. Among these, 87 (36.38%) tested six months ago, 76 (32.2%) tested three months ago, 37 (15.7%) tested one year ago and 36 (15.3%) tested on the recent pregnancy. All of them had preand post-counseling services (Tesfaye et al., 2015).

A cross-sectional descriptive study was conducted among 241 Primary Health Care (PHC) workers. The study aimed at assessing the knowledge and practices regarding prevention of mother-to-child transmission of HIV. The study found that barely two-thirds of respondents (58.9%) routinely provide HIV testing and counseling for all the pregnant women seen by them at their respective health facilities, and less than half of respondents (44.4%) routinely administer ARV prophylaxis to mother and child or refer them to where such services are available. The study concluded that awareness of PMTCT of HIV was high among the respondents in this study, on the job training, knowledge and practices were poor (Arisegi et al., 2017).

A hospital-based cross-sectional study was conducted in Dil Chora Referral Hospital, Ethiopia among 242 pregnant women. The study revealed that only half of the pregnant women (50%) had good practice towards the prevention of mothers to child transmission of HIV/AIDS. Two hundred thirty-eight (98.3%) of women have been tested for HIV/AIDS. From those, [206 (85.1%)] were tested at their current pregnancy, 56 (23.1%) during the previous pregnancy, 118 (48.8) during the marriage, and 53 (21.9%) tested at a time of medical illness. The majority of pregnant mothers (228 (95.8%)) get tested at a health institution. But, less than half of respondents (44.1%) tested every 3 months, and (39.1%) tested more than three times. Pretest and posttest counseling was given to 205 (86.1%) and 208 (84.4%) pregnant mothers, respectively (Cherie et al., 2022).

A cross-sectional study collected qualitative data from 152 pregnant women registered in the health facilities in Taungoo township, Myanmar. The study showed that 85.5% received HIV testing during antenatal care, 36 (23.7%) were tested for HIV during the first trimester of current pregnancy, 86 (56.6%) during the second trimester of current pregnancy and 8 (5.3%) during the third trimester of current pregnancy. Besides, 60 (39.5%) were counselled before

HIV testing, (28) 18.4% were counselled after HIV testing, and (43) 28.3% were counselled before and after HIV testing during antenatal care. Further, 73.7% of the study pregnancies shared HIV results with their partners and 57.2% of the husbands of the study pregnancies were tested for HIV (Han & Tun, 2022).

CHAPTER THREE

METHODOLOGY

3.1 Study Area

The Holy Family Hospital Berekum is situated in the Bono Region of Ghana. Due to the strategic location of the hospital patients from other parts of Ghana and neighboring country like La 'Cote D'evoire visits the hospital. The hospital has a bed capacity of about 250 beds and provides the following services; General Surgery, Child Health, Obstetrics/Gynecology, Ultrasonography, Ophthalmology, Physiotherapy, Laboratory Investigations and Blood Transfusion. The rest are X-Ray Investigations, HIV/AIDS (VCT, ART, and PMTCT), Special Diabetic Clinic, Special Hypertensive Clinic, Special TB Clinic, Special eye clinic, Pharmacy and Morgue Services. The hospital has the following existing departments (Wards): Medical Ward (male and female), Maternity Ward, Surgical Ward (male & female),

Children's Ward, neonatal intensive care unit (NICU), Labour ward, Outpatients Department (OPD), Antenatal Clinic and Operating Theatres for general surgeries.

3.2 Study Design

A descriptive exploratory design was used to conduct the study. A descriptive study describes the variables around the phenomenon of interest. As the objective of study is to describe the knowledge and attitude and practice of pregnant women with respect to the PMTCT program, a quantitative method and descriptive design is very appropriate for doing this study to describe the variables and to examine the relationships between them.

3.3 Study Population

The target population for the study were the pregnant women who attended the antenatal clinic of the selected hospital for routine visits; while severely ill pregnant mothers, those who refused to consent to the study, and mothers under 18 years of age were excluded.

3.4 Sampling Technique and size

Convenient sampling technique was used to recruit 50 participants for the questionnaire survey. This technique allowed investigators to recruit participants who were at their exposure. It was the technique of choice because it is easy, expedient and less time consuming.

3.5 Data Collection Tools and Technique

Data was collected using structured questionnaires with both open and close ended questions designed to address knowledge, attitudes and practices associated with PMTCT services. The first sections includes the client's socio-demographic, second section includes information about the client's HIV/AIDS knowledge and specific questions about mother-to-child

transmission of HIV, third section consists of information about the attitude of pregnant women toward PMTCT and last section of questionnaire includes questions that are related to the practice of actions that contribute towards the PMTCT.

3.6 Data Processing and Analysis

Data was analysed in using a computer program called Microsoft Excel.

3.7 Ethical Consideration

An introductory letter was obtained from the administration of Holy Family NMTC, Berekum. Ethical approval was sought from Holy Family Hospital, Berekum. Confidentiality, autonomy, respects and dignity of all the participants were strictly observed throughout the study. Additionally, participants were assured of their rights to decline participating in the study and also not to answer questions they felt uncomfortable with. The participants were assured of no harm and had free wish not to participate in the study.

3.8 Limitations of study

The study focused on an area that is urban and factors affecting practice of PMTCT among pregnant mothers in rural area may be different. Health workers that cared for them may have privileged information on some of the practices of pregnant mothers on PMTCT but questionnaire were not administered to them though invaluable. Limited fund and time were among the reasons for this omission.

CHAPTER FOUR

PRESENTATION OF RESULTS

4.1 Socio-demographic and obstetric Information

Any difference between the total sample size (50) and the total value in table 4.1 is the number of missing values. As shown in table 4.1 below, 52% of the respondents were in the age group of 18 to 25 years, 36% were 26 to 33 years, 10% were 34 to 41 years and 2% were in the age group of 42 to 49 years.

Marital status was categorized as single, married, not married and divorced. Marital status of the respondents showed that 50% were single, 26% were not married, 22% were married and 2% were divorced.

The religious affiliations were 72% Christians, 24% Muslim's and 2% chose other religion such as traditional religion.

The level of education of respondents was 6% no formal education, 8% primary education, 12% junior high school, 38% senior high school and 36% had higher level education.

Table 4. 1: Summary of socio-demographic characteristics of respondents

Category		**Frequency**	**Percentage**
Age	18-25	26	52
	26-33	18	36
	34-41	5	10
	42-49	1	2
	Total	**50**	**100**
Marital Status	Single	25	50
	Married	13	26
	Not married	11	22
	Divorced	1	2
	Total	**50**	**100**
Religion	Christianity	37	74
	Islamic	12	24
	Others	1	2
	Total	**50**	**100**
Occupation	Employed	23	46
	Unemployed	19	38
	Housewife	8	16
	Total	**50**	**100**

Educational level	None	3	6
	Primary	4	8
	JHS	6	12
	SHS	19	38
	Higher	18	36
	Total	**50**	**100**

Table 4.2 depicts the obstetric characteristics of respondents, 52% (n26) had a parity of one followed by 36% (n18) parity of two to three and 12% (n6) parity of four to five. Regarding place of last delivery, 70% (n35) chose hospital, 22% and (n11) chose health center. The number of ANC visits by the respondents are as follows, 40% (n20) had four visits and above, 28% (n14) had three visits, 22% (n11) had two visits and 10% (n5) had one ANC visit. The time of respondent's pregnancy are as follows, 52% (n26) second trimester, 28% (n14) third trimester and 20% (n10) first trimester.

Table 4. 2: Summary of obstetric characteristics of respondents

Category		**Frequency**	**Percentage**
Parity	1	26	52
	2-3	36	36
	4-5	6	12
	Total	**50**	**100**
Place of last delivery	Home	1	2
	Hospital	35	70
	Health Center	11	22
	No previous deliveries	3	6
	Total	**50**	**100**
Number of ANC visits so far	One	5	10
	Two	11	22
	Three	14	28
	Four and above	20	40

	Total	**50**	**100**
Pregnancy timing	First trimester	10	20
	Second trimester	26	52
	Third trimester	14	28
	Total	**50**	**100**

4.2 Knowledge Regarding PMTCT of HIV/AIDS

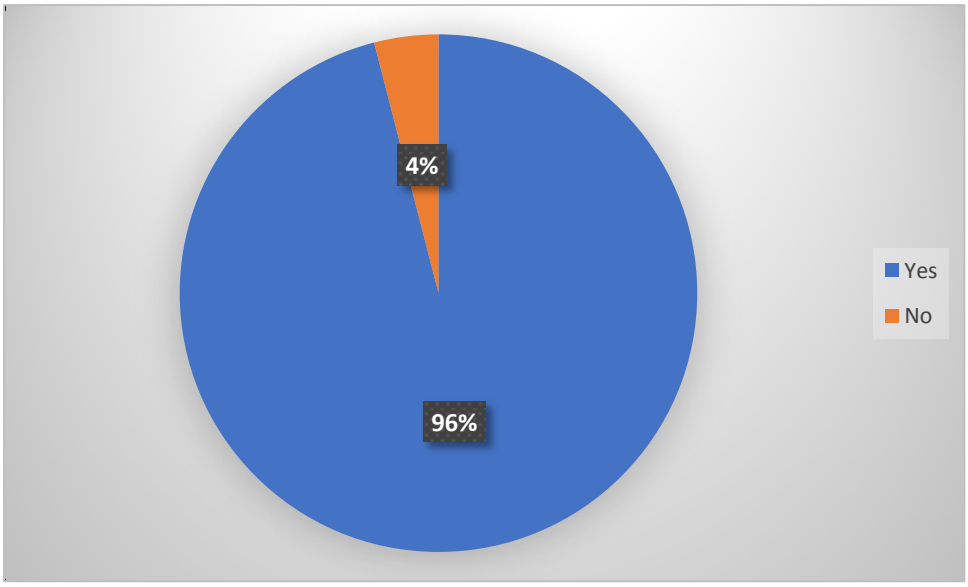

Figure 4. 1: Distribution of respondents who have heard of PMTCT

According to figure 4.1, out of the 50 respondents who answered a huge proportion 96% (n48) of them had heard of PMTCT.

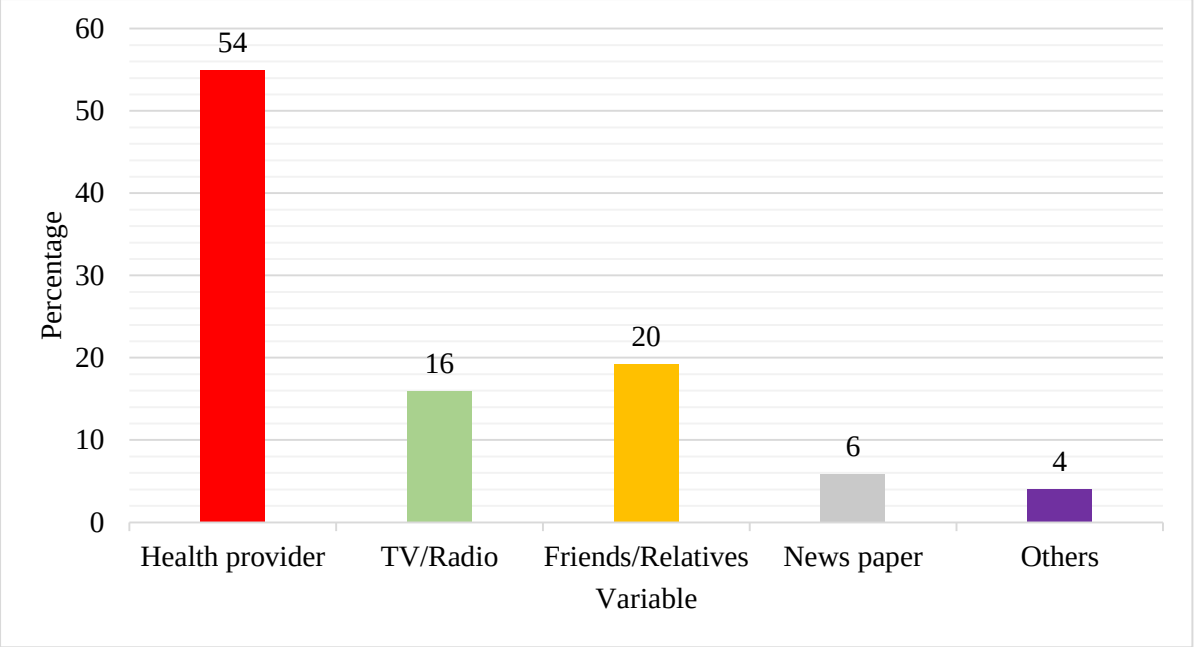

Figure 4. 2: Distribution of respondent's source of information

Respondents were asked to identify the sources of information on PMTCT of HIV. Out of the 50 respondents who answered this question, 54% (n27) mentioned health provider followed by friends and relatives 20% (n10), TV/Radio 16% (n8), newspaper 6% (n3) and other sources 4% (n2) such as lectures, church and seminars. This is shown in figure 4.2.

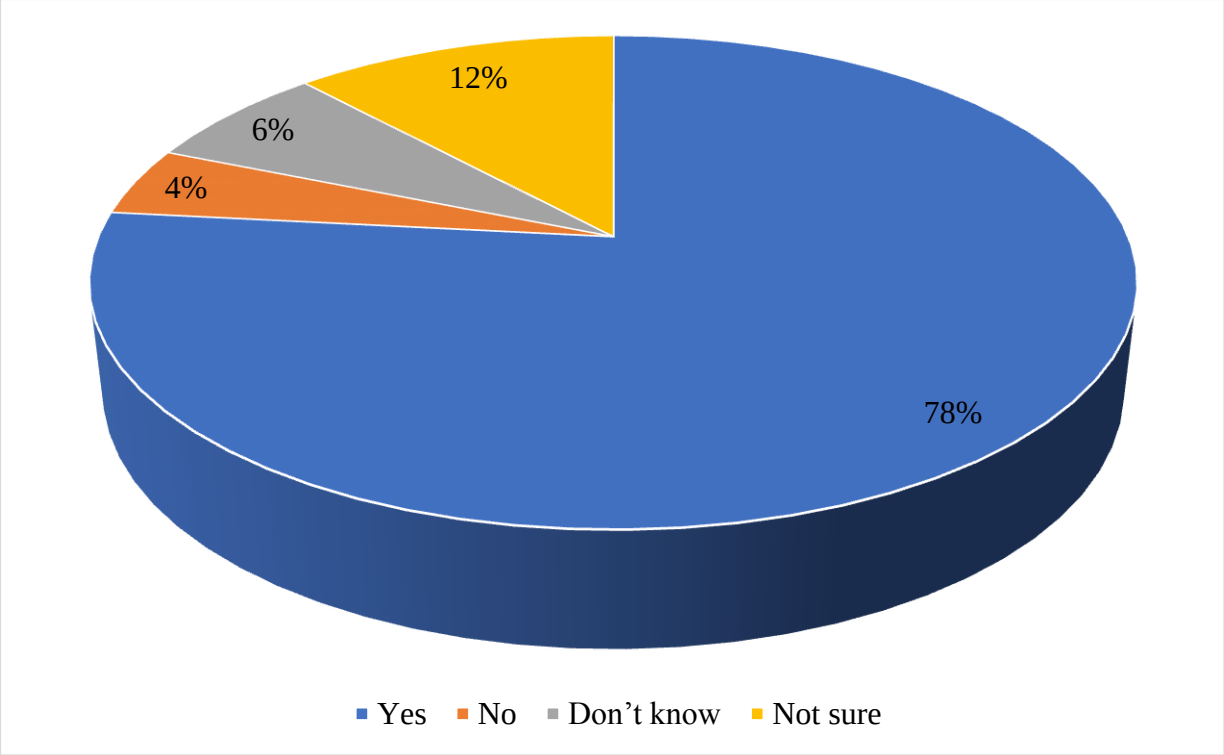

Figure 4. 3: Distribution of respondent's knowledge on HIV transmission

From figure 4.3, Respondents were assessed on their knowledge on HIV transmission from a mother to the baby, out of the 50 respondents who answered this question, 78% (n39) said HIV can be transmitted from a mother to her baby, 12% (n6) were not sure, 6% (n3) did not know about transmission of HIV from mother to the baby and 4% (n2) said it cannot happen.

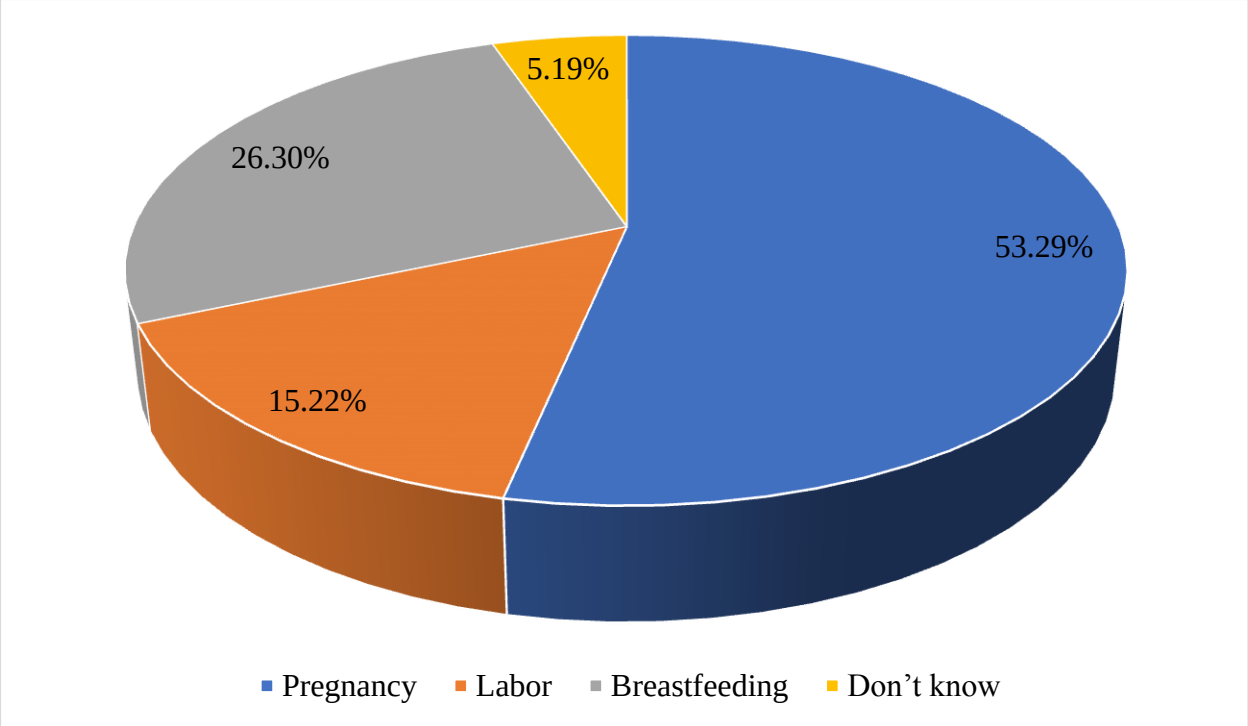

Figure 4. 4: Distribution of respondent's time of mother to child transmission of HIV

Respondents were further asked to indicate the time of HIV transmission from a mother to the baby, out of the 50 respondents who answered this question, 52% (n26) said HIV can be transmitted from a mother to her baby during pregnancy, 26% (n13) indicated during breastfeeding, 16% (n8) indicated during labor and 6% (n3) did not know the time of HIV transmission from a mother to the baby. This is illustrated on figure 4.4.

Table 4. 3: Distribution of actions to prevent MTCT of HIV

Variable	Frequency	Percentage
Take drugs before delivery/during labour	36	72
Give baby drugs (antiretroviral)	7	14
Delivery by caesarean section	10	20
Avoid breastfeeding	6	12
HIV testing and counseling of pregnant women	14	28
Nothing	2	4
Don't know	4	8

Table 4.3 is an illustration of respondents actions to prevent MTCT of HIV, 8% (n4) did not know about it and 4% (n2) said nothing could be done. However, 72% (n36) mentioned that pregnant women should take drugs before delivery/during labour followed by HIV testing and counseling of pregnant women 28% (n14), delivery by caesarean section 20% (n10) among other actions.

4.3 Attitude Towards PMTCT of HIV/AIDS

Table 4. 4: Distribution of respondent's attitude towards exclusive breastfeeding

Statement		Agree	Disagree	No opinion
It is important that every pregnant woman gets tested for HIV	n	41	2	7
	%	82	4	14
HIV positive mother should get ART during pregnancy to reduce risk of transmission of HIV to her child	n	39	4	7
	%	78	8	14
Every pregnant woman should get tested for HIV with her partner	n	41	6	3
	%	82	12	6
I will support the strategies for PMTCT	n	44	2	4
	%	88	4	8
It is better to live with unknown HIV status than live depressed with positive HIV status known	n	12	34	4
	%	24	68	8

Table 4.4 illustrates the attitude of respondents towards exclusive breastfeeding, significant number of respondents demonstrated good attitude towards PMTCT of HIV/AIDS as majority responded positively to the PMTCT strategies. Agreeing to any of the statements on attitude was scored as a positive attitude with the exception of the statement ‘‘It is better to live with unknown HIV status than live depressed with positive HIV status known’’ where respondents who disagreed showed a positive attitude.

4.4 Practices about PMTCT of HIV/AIDS

Table 4. 5: Distribution of practices about PMTCT of HIV/AIDS

Question	Category	Frequency	Percentage
Have you ever been tested?	Yes	49	98
	No	1	2
	Total	**50**	**100**
Do you have testing practice every three months?	Yes	18	36
	No	32	64
	Total	**50**	**100**
Upon your arrival here at the Hospital, did the staff offer you PMTCT counselling?	Yes	48	96
	No	2	4
	Total	**50**	**100**
If yes, have you been convinced to use PMTCT services?	Yes	45	93.8
	No	3	6.3
	Total	**48**	**100**

To assess the practice of respondents towards PMTCT, respondents were asked numerous questions. As shown in table 4.5, of the 50 respondents who completed the question 98% (n49) had had HIV test whiles 2% (n1) had not had the test. 64% (n32) said they do not have HIV test every three months whiles 36% (n18) said they do. 96% (n48) of the respondents were said they were offered PMTCT counselling by a staff upon arrival at the hospital. Out of

those who were offered PMTCT counselling by a staff, 93.8% (n45) said they have been convinced to use PMTCT services.

CHAPTER FIVE

5.0 DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter provides an in-depth look at the major findings that emerged out of the research, comparison of the analyzed data with findings from other literature, conclusion, and recommendations.

5.1 Discussion

This session discusses the research findings with the findings in the literature review based on the specific objectives of this study. The findings of this study are discussed and the results are compared with the findings of other researchers.

5.1.1 Knowledge Regarding PMTCT of HIV/AIDS

The study found that a huge percentage 96% of the respondents had heard of PMTCT. 78% of the respondents said HIV can be transmitted from a mother to her baby which is quite high. They mentioned that transmission could occur during pregnancy (52%), during labor (16%) and during breastfeeding (26%). According to a previous study by Tesfaye et al. (2015), all of the respondents (100%, n238) heard about HIV/AIDS and about MTCT of HIV. Concerning the time of transmission of the virus from the infected mother to her child, 74 (31.4%) responded that it could be through breast feeding, 69 (29.2%) during pregnancy, 6 (27.5%) during labor and 2 (11.9%) did not know respectively. Also, Birhane et al. (2015) found that among respondents who heard MTCT, more than two-thirds (70.7%) mentioned labor/delivery as a time of HIV transition from mother to child.

The current study found that 54% of the respondents mentioned health provider as their source of information on PMTCT. This shows the benefits of PMTCT counselling upon arrival of pregnant women at the hospital. Friends and relatives (20%) and TV/Radio (16%) were also mentioned as source of information on PMTCT. Birhane et al. (2015) found that nearly two-thirds (63.8%) had received information about HIV/AIDS from health care providers which is in line with the findings of the current study. Cherie et al. (2022) opined that all (100%, n242) of the respondents heard about HIV/AIDS and more than half of them (52.9%) got information from mass media which also is in line with the findings of this study.

The current study found that respondents knew about the methods or actions that can be taken to prevent MTCT of HIV, majority (72%) mentioned that pregnant women should take drugs before delivery/during labour followed by HIV testing and counseling of pregnant women 28%, delivery by caesarean section 20% and giving drugs (antiretroviral) to newborns (14%). In the same way, a study by Cherie et al. (2022) found that Two hundred seventeen (89.7%) of women knew that the risk of MTCT of HIV was prevented by providing ART during pregnancy, by cesarean section delivery 8 (36.4%) and by providing ART drugs to the newborn 117 (48.3%).

5.1.2 Attitude Towards PMTCT of HIV/AIDS

Understanding the attitude of the pregnant women towards PMTCT services was one of the objectives of this study. The majority of pregnant women who participated in this study showed a good overall attitude towards PMTCT interventions. The average percentage of positive attitude towards PMTCT strategies was 79.97%. This finding correlates favourably with similar studies conducted by Tesfaye et al. (2015) in Ethiopia (93.6%), Aniley (2020) in Ethiopia (55.6%) and Cherie et al. (2022) in Chora Referral Hospital, Ethiopia (71%).

5.1.3 Practices about PMTCT of HIV/AIDS

Findings from this study showed that 98% of respondents had been tested for HIV and only nine respondents had not been tested. Only (36%) of the respondents indicated they test for HIV every three months. Similarly, a study conducted by Tesfaye et al. (2015) among 238 antenatal care attendees found that all the respondents have been tested for HIV. Among these, 87 (36.38%) tested six months ago, 76 (32.2%) tested three months ago, 37 (15.7%) tested one year ago and 36 (15.3%) tested on the recent pregnancy. Additionally, Cherie et al. (2022) found that less than half of respondents (44.1%) tested every 3 months, and (39.1%) tested more than three times.

In the current study majority (96%) of the respondents were said they were offered PMTCT counselling by a staff upon arrival at the hospital. Out of those who were offered PMTCT counselling by a staff, 93.8% said they have been convinced to use PMTCT services. This finding is in line with a study conducted by Han and Tun (2022), their study 60 (39.5%) were counselled before HIV testing.

5.2 Conclusion

The study found that respondents had moderate knowledge on PMTCT of HIV/AIDS. Regarding the attitude of pregnant women toward PMTCT strategies, it was found that the majority of respondents had good attitudes and most of them would support PMTCT strategies. Regarding PMTCT practice, it was found that almost all respondents had undergone an HIV test and the majority.

5.3 Recommendations

1. Encourage “community leaders and spiritual leaders to communicate information about PMTCT, encourage support of PMTCT” and eliminate the fear of stigma and discrimination.
2. Strengthen mass media campaigns to improve the knowledge and positive attitude of people towards the PMTCT program.
3. Formal health education programs with regard to HIV/AIDS and PMTCT should be offered to improve knowledge and “understanding of the subject to all clients and patients who visit the healthcare facilities, irrespective of gender, so that even males as partners should be able to acquire and act upon the information”.

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APPENDICES

QUESTIONNAIRE

Dear Respondent,

We are students of Holy Family NMTC, Berekum conducting a research on the study titled: **assessing the knowledge of pregnant women attending antenatal clinic at Holy Family Hospital on the practice of PMTCT**. Your response and contribution will be used for academic purposes and no disclosure will be made to any third party. However, you are allowed to discontinue this interview at any stage. Kindly answer the under listed questions by ticking (√) the appropriate box or write in the spaces provided. Thank you.

Part I: Socio-Demographic and Reproductive Information

1. Indicate your age: a. 18-25 [] b. 26-33 [] c. 34-41 [] d. 42-49 []
2. Marital status: a. Single [] b. Married [] c. Not married [] d. Divorced []
3. Religion: a. Christianity [] b. Islamic [] c. Others (specify)……
4. Occupation: a. Employed [] b. Unemployed [] c. Housewife []
5. Educational level: a. None [] b. Primary [] c. Junior High School [] d. Senior High School [] e. Higher []
6. Parity: a. 1 [] b. 2-3 [] c. 4-5 []
7. Place of last delivery

   a. Home [] b. Hospital [] c. Health Center [] d. No previous deliveries []
8. Number of ANC visits so far

   a. One [] b. Two [] c. Three [] d. Four and above []
9. Pregnancy timing

   a. First trimester [] b. Second trimester [] c. Third trimester []

Part II: Knowledge Regarding PMTCT of HIV/AIDS

10. Have you ever heard of prevention of mother-to-child transmission (PMTCT)?

    a. Yes [] b. No []

11. If yes, where did you get information on PMTCT from? (more than one answer may be correct)

    a. Health provider []

    b. Friend/relative []

    c. TV/Radio []

    d. Newspaper/Books []

    e. Other (specify): ……

12. Can HIV be transmitted from a mother to her baby?

    a. Yes []

    b. No []

    c. Don't know []

    d. Not sure []

13. If yes, indicate time of mother to child transmission of HIV

    a. During pregnancy []

    b. During labor []

    c. During breastfeeding []

    d. Don't know []

14. What actions can be taken to prevent MTCT of HIV? (more than one answer may be correct)

    a. Take drugs before delivery/during labour []

    b. Give baby drugs (antiretroviral) []

    c. Delivery by caesarean section []

d. Avoid breastfeeding []

e. HIV testing and counseling of pregnant women[]

f. Nothing []

g. Don't know []

Part III: Attitude Towards PMTCT of HIV/AIDS

15. It is important that every pregnant woman gets tested for HIV.

    a. Agree [] b. Disagree [] c. No opinion []

16. HIV positive mother should get ART during pregnancy to reduce risk of transmission of HIV to her child

    a. Agree [] b. Disagree [] c. No opinion []

17. Every pregnant woman should get tested for HIV with her partner

    a. Agree [] b. Disagree [] c. No opinion []

18. I will support the strategies for PMTCT

    a. Agree [] b. Disagree [] c. No opinion []

19. It is better to live with unknown HIV status than live depressed with positive HIV status known

    a. Agree [] b. Disagree [] c. No opinion []

Part IV: Practices about PMTCT of HIV/AIDS

20. Have you ever been tested?

    a. Yes [] b. No []

21. Do you have testing practice every three months?

    a. Yes [] b. No []

22. Upon your arrival here at the Hospital, did the staff offer you PMTCT counselling?

    a. Yes [] b. No []

23. If yes, have you been convinced to use PMTCT services?

a. Yes [] b. No []

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Our Ref. .....

Your Ref. .....

Date August 14, 2024

The Nursing Administrator
Holy Family Hospital
P.O. Box 21
Berekum
Bono Region

Dear Nursing Administrator

PERMISSION TO CONDUCT RESEARCH

I wish to introduce to you the under listed names of final year students of the College

1. Twenewaa Benedicta
2. Jachan Peggy
3. Akpaliok Magdaline

As part of the pre-requisite for the award of Diploma in Nursing they are to conduct a research on the topic **"'Assessing the Knowledge of Pregnant women attending Antenatal Clinic at Holy Family Hospital, Berekum"**

I would be grateful if you could assist them with any material or help they may need to accomplish this task.

Thank you

Yours sincerely

.....

Ms. Ubaida Abdul - Karim
Supervisor
For: Principal

Website: nmtcberekum.edu.gh **E-mail.** nmtcberekum@yahoo.com, nmtcberekum@gmail.com