Addis Ababa University
School of Graduate Studies

An Assessment on Pregnant Women's Utilization of and Attitude towards Voluntary HIV Counseling and Testing Service: The Case of Gondar Town

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An Assessment on Pregnant Women's Utilization of and Attitude towards VCT Service: The Case of Gondar Town

By

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Acronyms and abbreviations

AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
ARV	Antiretroviral drug
HAPCO	HIV/AIDS Prevention and Control Office
MOH	Ministry of Health
MTCT	Mother to Child Transmission
PMTCT	Prevention of HIV from Mother to Child Transmission
STI	Sexually Transmitted Infections
VCT	Voluntary Counseling and Testing
WHO	World Health Organization
UNAIDS	Joint United Nations Program on HIV/AIDS

Abstract

Voluntary counseling and HIV testing for pregnant women is a starting point for instituting an MTCT prevention program. The objective of this study was to assess pregnant women's utilization of and attitude towards voluntary HIV counseling and testing service. A cross-sectional study design was used in which data was collected using a structured questionnaire administered in a face to face interviews. The study was conducted in Gondar town at two hospitals and one health center, namely, Gondar University hospital, Defense hospital and Gonder health center. The study sample comprised of 176 pregnant women aged from 18 to 38 years. It was found that most of the respondents had good knowledge of mother to child transmission of HIV and its prevention; and voluntary HIV counseling and testing service. Similarly, most of them had a positive attitude towards Voluntary HIV counseling and testing service. How ever, most (93.18%) of them had never used voluntary HIV counseling and testing service because of the presence of different factors. Except age other variables (level of education, occupational status and marital status) had no significant relationship with utilization of VCT service at 0.05 level of significance. The study indicated that good knowledge about MTCT and VCT; and positive attitude towards VCT did not contribute to pregnant women's utilization of VCT service.

CHAPTER ONE

1. INTRODUCTION

1.1 Background of the study

Acquired Immunodeficiency syndrome (AIDS) has killed more than 25 million people since it was first recognized in 1981, making it one of the most destructive epidemics in recorded history. Despite recent, improved access to antiretroviral treatment and care in many regions of the world, the AIDS epidemic claimed 3.1 million lives in 2005. The total number of people living with the Human Immunodeficiency Virus (HIV) reached its highest level: an estimated 40.3 million people are now living with HIV (UNAIDS/WHO, 2005).

According to the World Health Organization, mother-to-child transmission of HIV is the most significant source of HIV infection in children below the age of 15 years. Since the beginning of the pandemic, an estimated 5.1 million children worldwide have been infected, almost all through MTCT(WHO, 2001). Most of the 800,000 children who were infected with HIV in 2001 acquired the infection through mother to child transmission (Baiden et al, 2003).

Although Ethiopia has been hit by the HIV/ AIDS epidemic later than many East African countries, HIV has now spread throughout the country. According to the Ethiopia Federal Ministry of Health estimate, a total 2.2 million people are living with the virus, 200,000 of them children. The majority (9 in 10) of infected children are infected through mother-to-child transmission of HIV (Kassahun et al, 2004).

Studies have shown that in the absence of any intervention, between 24-45 percent of HIV positive women living in resource poor settings transmit HIV to their babies during pregnancy, delivery, or through breastfeeding (Kassahun et al, 2004).

Among the different preventive strategies, voluntary counseling and testing for HIV is an entry point to interventions that prevent mother-to-child transmission (MTCT) of HIV. Counseling a woman following a negative test can help her understand and maintain safe behavior to avoid future infection and breastfeed for the greatest health of the infant. On the other hand, counseling a woman following a positive test can help her decide whether to share her HIV status with anyone and, if so, with whom; choose to terminate her pregnancy where safe, legal and available; choose to benefit from antiretroviral therapy where available; understand infant feeding options and choose that which is best in her circumstances; learn more about HIV infection and its implications for her health; access support groups and health services that promote positive living; and make choices about sexual behavior and future fertility (UNAIDS, 2001). According to the UNAIDS (2002), women very often have little or no knowledge about MTCT and VCT.

This study intends to assess pregnant women's utilization of and attitude towards voluntary HIV counseling and testing service with particular reference to pregnant women who live in Gondar town, Amhara National Regional State.

1.2 Statement of the problem

The specific problem experienced is the low voluntary HIV counseling and testing (VCT) uptake in the prevention of mother-to-child transmission of HIV program for pregnant women. According to the 1999 E.C Ethiopia's Ministry of Health report, there were 468,532 antenatal care clients at the national level. Among whom only 123,380 pregnant women were tested for HIV (MOH, 2007). According to this report, in the Amhara National Regional State, there were 45271 antenatal care clients but, surprisingly, none of them tested for HIV. This indicates that there is problem in the full utilization of voluntary counseling and testing for HIV. A pregnant woman whose HIV status is unknown is at an increased risk of transmitting HIV to her child. Hence, it is with this in mind that the researcher of this study tried to assess pregnant women's utilization of and attitude towards voluntary HIV counseling and testing service with particular reference to pregnant women who live in Gondar town, Amhara National Regional State.

In trying to assess this problem, the following research questions will be addressed:

1. Do pregnant women have knowledge about mother-to-child transmission of HIV and its prevention; and voluntary counseling and testing service?
2. Is there relationship between age, level of education, occupational status and marital status; and utilization of VCT service?
3. What attitude do pregnant women have towards voluntary HIV counseling and testing service?
4. Are there factors that affect utilization of voluntary HIV counseling and testing service among pregnant women?

1.3 Objectives of the study

1.3.1 General Objective

The general objective of this study is to assess utilization of and attitude towards voluntary counseling and testing service and factors (if any) that affect its utilization among pregnant women.

1.3.2 Specific Objectives

* To assess the knowledge of pregnant women about mother-to-child transmission of HIV and its prevention; and voluntary counseling and testing service.
* To find out whether there is relationship between age, level of education, occupational status and marital status; and utilization of VCT service.
* To asses the attitude of pregnant women towards voluntary HIV counseling and testing service.
* To identify factors (if any) that can affect utilization of voluntary HIV counseling and testing service among pregnant women.
* Based on the study findings to forward practical recommendations for action.

1.4 Significance of the study

The rationale for conducting this study on pregnant women stems from the fact that this group of the society is the most important source of HIV infection in children through mother-to-child transmission of HIV.

With regard to the significance of the study, it is important to gain information about pregnant women's knowledge about mother-to-child transmission of HIV and its prevention and voluntary counseling and testing service; attitude towards voluntary HIV counseling and testing services; and factors that can affect their utilization of voluntary HIV counseling and testing service. Knowing this plays a significant role in designing intervention programs related to voluntary HIV counseling and testing service and this, in turn, contributes much in the prevention of mother-to-child transmission of HIV. In other words, by understanding the study, the concerned body can know what should be done in order to solve the problem and to reduce the spread of HIV/AIDS. The study will also provide some clues for individuals who are interested to do further research in the area.

1.5 Delimitation and limitation of the study

It is obvious that during any research work obstacles may be faced for thorough and further study. For this research also, some problems pose limitation of the study.

The major problem was scarcity of time. To do this research the time available was less than three months which was not sufficient. With in this short period of time, it was very difficult to handle large numbers of subjects.

Therefore, due to this time constraint this study was delimited to the small number of pregnant women who live in Gondar town, Amhara National Regional State, in the area of assessing pregnant women's utilization of and attitude towards voluntary counseling and testing service

and, hence, findings of this study may not be generalized to the general population or other ANC attendees in the town.

1.6 Definition of key terms

- **Pregnant women**: in this study, refer to women who are pregnant and live in the town of Gondar during the study time.
- **Utilization**: in this study, refers to pregnant women's use of voluntary HIV counseling and testing service.
- **Attitude**: in this study, refers to pregnant women's predisposition towards voluntary HIV counseling and testing service.
- **Factors**: in this study, refer to causes that can affect pregnant women's utilization of voluntary HIV counseling and testing service.
- **Voluntary Counseling and Testing (VCT)**: is the process by which an individual undergoes counseling enabling him or her to make informed choice about being tested for HIV (UNAIDS, 2000).

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

In this chapter background information about mother to child transmission of HIV, issues concerning prevention of mother to child transmission of HIV, an overview on voluntary counseling and testing, importance of having VCT service, advantages of HIV counseling and testing for pregnant women and, finally, factors that affect uptake of voluntary HIV counseling and testing are reviewed.

2.1 Background on Mother-to-Child Transmission (MTCT)

Of the 39.5 million people living with HIV/AIDS worldwide at the end of 2006, 2.3 million were children under 15 years. During 2006 alone, 530,000 children were newly infected with the AIDS virus (UNAIDS, 2006).

The most significant source of HIV infection in children and infants is transmission of HIV from mother to child during pregnancy, childbirth, or breastfeeding (MOH, 2004).

With a national adult HIV prevalence of 2.1%, Ethiopia is one of the countries most severely hit by the epidemic. Besides the dominant heterosexual transmission, vertical virus transmission from mother to child accounts for more than 90% of pediatric AIDS. As PMTCT programs provide for both prevention of HIV transmission from mother to child and enrolment of infected pregnant women and their families into antiretroviral treatment, it is undertaken by

the Government of Ethiopia in an effort to mitigate the impacts of the epidemic in the general population and amongst children in particular (HAPCO/MOH, 2007).

In the absence of preventive intervention, the probability that an HIV-positive woman's baby will become infected ranges from 15% to 25% in industrialized countries and 25% to 35% in developing countries. The difference is due largely to feeding practices: breastfeeding is more common and usually practised for a longer period in developing countries than in the industrialized world (UNAIDS, 1999).

Interventions aimed at preventing mother-to-child HIV transmission go hand-in-hand with strengthening maternal and child health services, and other reproductive/sexual health programs. Many strategies for preventing mother to child transmission benefit all women who are, or may become, pregnant (HAPCO/MOH, 2007).

The critical element in prevention of mother to child transmission of HIV is the identification, through confidential counseling and testing, of women infected with HIV (Flossy).

2.2 Voluntary Counseling and Testing

Voluntary HIV counseling and testing (VCT) is the process by which an individual undergoes counseling enabling him/her to make an informed choice about being tested (UNAIDS, 2002). The most effective intervention to reduce transmission from mother to child depends on a woman knowing her HIV status, which in turn depends upon the availability of information, counseling and voluntary service. Voluntary counseling and testing would therefore enable

mothers to determine their serostatus before prevention of mother-to-child transmission intervention can be carried out (UNAIDS, cited in Ekanem and Gbadegesin, 2004).

HIV counseling and testing services are a gateway to HIV prevention, care, treatment and support in high, medium and low-prevalence settings. Because they are adaptable to clients' needs, HIV counseling and testing services can be tailored to meet the needs of specific groups, such as young people, pregnant women, injecting drug users, men who have sex with men, and sex workers. HIV counseling and testing is also increasingly being offered in more places such as antenatal clinics, sexually transmitted infection (STI), TB and family planning clinics, specially designated VCT clinics, needle exchange clinics and mobile outreach clinics. Through HIV counseling and testing, more people can know their HIV status, get accurate information on HIV transmission, have a better understanding of their own risk or vulnerability to HIV infection, and have access to information and services (Alliance, 2006).

According to the UNAIDS (1999), to take advantage of measures to reduce MTCT, women will need to know and accept their HIV status. Voluntary counseling and testing services, therefore, need to be widely available and acceptable. It also said that, ideally, everyone should have access to such services since there are clear advantages to knowing one's serological status.

2.3 Counseling and HIV/AIDS

HIV counseling has been proved effective in various ways. An evaluation of The AIDS Service Organization (TASO) in Uganda has shown that it helps people accept and cope with the

knowledge of being HIV-positive, and furthermore encourages acceptance from families and communities. A Rwandan study has proved that HIV counseling can help people make decisions about HIV testing, as well as reduce HIV transmission. Yet there is a reluctance among some policy-makers and service managers to give counseling its proper due as a discipline in which trained practitioners can produce measurable, useful results. For this reason it is under-resourced and not fully appreciated (UNAIDS, 1997).

Specifically, counseling can benefit pregnant women—or women wanting to become pregnant— who are either HIV-positive or unaware of their HIV status. It facilitates their making informed decisions about whether to become pregnant if HIV-infected; whether to take a test before pregnancy; and, if pregnant, whether to terminate the pregnancy, where abortion is legally available. For those already pregnant, counseling can also discuss the use of zidovudine (ZDV, also known as AZT), where available, to reduce the risk of transmitting HIV to the unborn child, and breastfeeding and other infant feeding options (UNAIDS, 1997).

Counseling is key to the success of the prevention of mother to child transmission programme (Karamagi et al, 2006). The issues surrounding counseling represent a major challenge for the utilization of testing (Obermeyer & Osborn, 2007).

2.4 Objectives of VCT Service

Voluntary HIV counseling and testing service has the following objectives (MOH, 2002):

* To provide information on the mode of transmission and methods of prevention.

* To help those who wish to consider HIV testing, making a decision about whether or not to

be tested and to provide support following the testing.

* To provide information on the increased risk of HIV transmission associated with other sexually transmitted infections (STIs), and give referrals for STI examination and treatment.

* To provide information on the increased risk of opportunistic infections including tuberculosis (TB) associated with HIV infection.

* To provide family planning information and referrals for women of child bearing age who are infected or at high risk of HIV infection.

* To provide referrals to HIV positive and high risk HIV negative persons for necessary medical, preventive and psychosocial services and home based care in the community

2.5 Importance of Having VCT Service

HIV voluntary Counseling and testing (VCT) have been shown to have a role in both HIV prevention and, for people with HIV infection, as an entry point for care. VCT provides people with an opportunity to learn and accept their HIV status in a confidential environment with counseling and referral for ongoing emotional support and medical care. People who have been tested seropositive can benefit from earlier appropriate medical care and interventions to treat and/or prevent HIV-associated illnesses. Pregnant women who are aware of their seropositive status can prevent transmission to their infants. Knowledge of HIV serostatus can also help people to make decisions to protect themselves and their sexual partners from infection. A recent study has indicated that VCT may be a relatively cost effective intervention for the prevention of HIV transmission (UNAIDS, 2000).

A recent multi-site study conducted in Kenya, United Republic of Tanzania and Trinidad has provided data on the role of VCT in HIV prevention and its cost effectiveness compared with other HIV prevention interventions. This study demonstrated that VCT significantly reduced sexual risk behavior - specifically, unprotected sex with nonprimary partners, with commercial sex workers, and among couples who have been tested and counseled together. The study also showed that VCT could be cost-effective in terms of the cost per HIV infection averted. For example, the cost per client for VCT was $29 in the United Republic of Tanzania and $27 in Kenya, and was more cost-effective when targeted to HIV-positive persons, couples, and women (UNAIDS, 2000).

In general, VCT can be considered as an entry point to prevention and care, medical care, for prevention of mother to child transmission of HIV infection (PMCTC), for ongoing emotional and spiritual care and social support (UNAIDS, 2000).

2.6 Advantages of HIV Counseling and Testing for Pregnant Women

It helps pregnant mothers who test HIV positive to reduce the risk of passing HIV to their baby during:

• pregnancy – for example, they might be able to take ARVs to prevent transmission of HIV to their baby

• birth – for example, they could try to ensure a safe hospital delivery attended by a qualified staff member, or in some cases they might be able to have a Caesarean section

• the baby's first months – for example, immediately after the birth the baby may be given a single dose of the ARV the mother has had. Informed decisions can also be made around whether to breastfeed exclusively or, depending on the local context, exclusively feed the baby with infant formula

• learn how to protect themselves from getting reinfected with HIV, care for their newborn baby while looking after their own health needs, consider carefully future family planning methods, discuss hopes and desires for more children, and learn where to go for support.

It helps pregnant mothers who test HIV negative to:

• learn how to protect themselves from becoming HIV positive in the future.

So, it is important for us to see HIV counseling and testing as an important opportunity rather than a threat (Alliance, 2006).

Despite these benefits, VCT coverage among people who need the service is 6 percent in less developed countries of Africa (WHO, 2002, cited in HAPCO, 2003).

2.7 Utilization of Counseling and Testing for HIV

The use of voluntary HIV counseling and testing service globally, however, is very low (Obermeyer & Osborn, 2007). According to the finding of Hutchinson, Corbie-Smith, Thomas, Mohanan and del Rio (2004) the main reason people do not take HIV tests is fear. This is not surprising, since HIV is life threatening. But fear is also about the social consequences of the illness—rejection by loved ones, loss of job or housing, discrimination, and violence (cited in Obermeyer & Osborn, 2007). Similarly, a study conducted in Nigeria among pregnant women showed that utilization of voluntary HIV testing is rather low (Enosolease and Offor, 2004).

In a study conducted in six African countries, a reported two thirds or more of respondents stated they would like to get tested, the proportion of those who reported being tested was much lower, around 15% in some settings (Glick, 2005).

According to Enosolease and Offor (2004), pregnant women's utilization of voluntary HIV counseling and testing increases with a corresponding increase of age. Age has been shown to be a significant factor in the determination of whether mothers will accept HIV testing because of higher risk perception among older women. Contrary to this finding, Banerjee (1990) showed that age was not considered to be a confounder to the utilization of voluntary HIV counseling and testing.

In addition, research findings showed better utilization of voluntary HIV counseling and testing among employed than unemployed pregnant women (Kowalczyk, Jolly, Karita, Nibarere, Vyankandonde, and Salihu, 2002). Contrary to this report, Enosolease and Offor (2004) found better utilization of voluntary HIV counseling and testing among the unemployed than the employed.

Whereas some studies have shown that a lower education level is associated with higher utilization for voluntary HIV counseling and testing (Fernandez, Collazo, Bowen, Varga, Hernandez, and Perrino, 2005), a study conducted by Bajunirwe and Muzoora (2005) showed the opposite, with those having at least a post-primary education showed more utilization of voluntary HIV counseling and testing compared to those with lower education.

In their study, Nguyen, Shafi and Sutham (2007) found out the significant relationship between marital status and utilization of voluntary HIV counseling and testing service. According to their study, utilization of the service of married clients was better than other group; that is, single clients and divorce/widowed clients. In contrast to this, Ekanem and Gbadegesin (2004) showed lack of relationship between marital status and utilization of the service.

2.8 Attitudes towards HIV testing

In a study conducted by Fasubaa, Ezechi, Orji and Olewookere (2001) in South West Nigeria which assessed pregnant women's opinions on the issue of antenatal HIV screening, women who accepted the test did so because they wanted to prevent the HIV transmission from the mother to the baby. The women revealed that accepting the HIV test was beneficial to the mothers, babies, close family members and community.

According to Bajunirwe and Muzoora (2005), although only 22% women interviewed in the survey had ever been tested for HIV, the willingness to take an HIV test was high with a total of 337 women (87%) responding that they would accept an HIV test if it was offered to them.

In their study, Ekanem and Gbadegesin (2004) found out that a large proportion of the respondents were willing to undergo HIV test in the current pregnancy. The number willing to be tested increased to 96.1% if it would assist in the prevention of MTCT of HIV.

An investigation on attitudes to HIV and HIV testing among health professionals and pregnant antenatal care followers, in high prevalence area of China, revealed that the respondents level of knowledge was high and their attitude towards HIV testing was generally positive (Hesketh,

Duo, Li and Tomkins, 2005). This study also revealed that there were no significant differences in attitudes to voluntary HIV counseling and testing between the different socio-economic statuses of the study group.

A national survey conducted in South Africa by Van Dyk and Van Dyk (2003) disclosed that most of the participants (87.3%) believed that every person should know his/her HIV status and 79.1% of them were personally prepared to undergo VCT. Only 12.8% of the participants said they wouldn't definitely go for VCT.

A study conducted on Namibian pregnant women by Mtombeni (2004) showed that most participants were supportive of routine prenatal HIV testing as long as there was adequate pretest and post test counseling.

In Ethiopia, a study conducted by Shitaye and her colleagues revealed that about 98% of the respondents felt VCT as a necessary intervention strategy (Shitaye, Nuru, Getu, Yared and Solomon, 2004).

2.9 Factors that Affect Uptake of Voluntary HIV Counseling and Testing

There are many benefits to knowing our HIV status. But there are also many reasons why people do not get tested. These factors to voluntary HIV counseling and testing are different for each of us, depending on our situation.

2.9.1 Service Related Factors

Service related factors include structural barriers and confidentiality and attitude of health workers.

2.9.1.1 Structural Barriers

Structural Barriers like distance of service, inconvenient working hours and cost of the service can play a significant part. In an exploratory study among Kenyan and Ugandan youth, cost, inconvenient working hours, distance and waiting time were reported by the respondents as major barriers for not accessing VCT services (Horizons, 2001).

In a four-year study to examine the introduction of PMTCT services within maternal and child health programs in Kenya and Zambia, about two-thirds of more than 22,000 women who sought antenatal care as new clients received pretest counseling, but less than one-third went on to have an HIV test. Reasons for disapproving VCT uptake at ANC/PMTCT sites throughout Africa may include logistic barriers (e.g. results are unavailable the same day or tests are expensive) and fears that test results will not remain confidential (Cartoux, 1998).

2.9.1.2 Confidentiality and Attitude of Health Workers

Voluntary screening programs for HIV may be either confidential or anonymous: the process for each is unique (Stanhope, 2000; cited in Maria, 2006). A qualitative study investigating VCT uptake by pregnant women using focus group discussion in South West Uganda revealed that pregnant women were anxious about taking up VCT, due to the fear for confidentiality and fear that maternity staff might refuse to assist them when the time come to deliver if their status

were known (Pool, Nyanzi, & Whitworth, 2001). It is alleged that in some health facilities nurses disclose the HIV status of their clients in the public without informed consent (Stanhope, 2000, cited in Maria, 2006).

If they feel assured that their HIV status and other personal information will remain confidential, they will be more likely to seek counseling, testing, treatment and support (Alliance, 2006).

2.9.2 Client Related Factors

Client related factors include client's knowledge about HIV/AIDS, mother to child transmission of HIV, voluntary HIV counseling and testing and availability of treatment options, perceived susceptibility to HIV infection, concern about confidentiality, fear of stigma and discrimination, fear of mental anguish and depression and fear of rejection by a partner.

2.9.2.1 Knowledge about HIV/AIDS, MTCT, VCT and Availability of Treatment Options

According to Ekanem and Gbadegesin (2004), the majority of the pregnant women had very good knowledge of the modes of HIV transmission. However, knowledge of specific aspects of MTCT such as the probability of transmission of the virus from mother to baby during pregnancy, delivery and breast feeding were generally lower. Similarly, a study conducted on pregnant women in Ghana showed that awareness that HIV/AIDS could pass from infected mother to her baby was very low (Addo, 2005). In her study, Maria (2006) also showed that

participants showed low levels of knowledge of modes of HIV transmission from mother to child.

According to LINKAGES and UNICEF (2003), most women and men are aware that HIV can be transmitted during unprotected sex and through unclean needles and sharp instruments. Far few are aware of mother to child transmission. Those who have heard of it believe transmission is most likely during pregnancy or breast feeding; except in Addis Ababa, most are unaware that transmission can also occur during delivery (cited in Hareg, 2004).

A study conducted to assess pregnant women's knowledge of HIV and AIDS and attitude towards VCT uptake in a Teaching Hospital in Northern Nigeria indicated that 65% had good knowledge, 24% had fair knowledge and 11% had poor knowledge of infection. Most respondents were aware of VCT through health workers, mass media and friends (Iliyasu et al, 2005). Another study carried out in Lagos, Nigeria, indicates that the majority of women (89.9%) had good knowledge of the mode of HIV transmission, however specific aspects of PMTCT was poor. For example, close to half of the women (41.7%) were not aware of the association between breast milk and HIV transmission (Ekanem and Gbadegesin, 2004).

Women attending antenatal services in hospitals and clinics very often have little or no knowledge about MTCT and VCT. This is the case even in high-HIV-prevalence settings (UNAIDS, 2002). Contrary to this, a study conducted on Namibian pregnant women by Mtombeni (2004) showed that most participants were aware of the availability of HIV counseling and testing services at the hospital.

The knowledge of availability of treatment options has been demonstrated to affect the attitudes of people to VCT. Several studies have shown that those who knew about antiretroviral (ARV) therapy for pregnant women were more likely to have had an HIV test than those without such knowledge (Ekanem and Gbadegesin, 2004).

2.9.2.2 Perceived Susceptibility to HIV Infection

Many women do not think that they are at risk of HIV because they are faithful to their husbands and assume that their husbands are faithful to them. Also, many believe that there is no point in knowing their HIV status when pregnant because they believe that the baby will automatically become infected if the mother is HIV-positive. Because they think there is no hope of protecting the baby from HIV, and there are no services treatment available to them if they are HIV-positive (Hareg, 2004).

In their study Ekanem and Gbadegesin (2004) found out that many of the women surveyed did not perceive themselves to be at risk of HIV infection. This may be due to the fact that these women were married and may have viewed themselves as faithful partners to their spouses. They also found that educational level was significantly related to perceived susceptibility to HIV infection with more of those with higher educational levels considering themselves to be susceptible to HIV transmission, compared to those with lower educational qualifications. This may be as a result of the greater knowledge of the diverse modes of HIV infection, which they demonstrated. Another possible explanation may be that they engage in more risky behaviors than those of lower educational background.

Although it is clear that practical constraints, delays in test results, and lack of knowledge hinder the utilization of HIV testing, the major barrier is individuals' reluctance to acknowledge that they are at risk even when in fact they are (Obermeyer & Osborn, 2007).

2.9.2.3 Fear of a Positive Result

According to Toivo (2005), some pregnant women had a problem regarding the test, because they were scared of the positive result. They revealed that it would bring death nearer. They also did not want to be known as the people living with HIV/AIDS. Therefore, for them it was better not to be tested in order to avoid stress or even provoke it.

A study conducted by Fasubaa and his colleagues also indicates that the women could not take the HIV test because they were afraid of the outcome of the results (Fasubaa et al, 2001).

A survey of high risk individuals in the United States revealed that fear of a positive result was found to be a decisive barrier by the majority (25%) of the respondents (Galvan, Bing, and Bluthenthal, cited in Peltzer, Nzewi and Mohan, 2004). Likewise, the exploratory survey conducted by the Horizons on Kenyan and Ugandan youth showed that fear of a positive result was one of the important prevailing factors preventing the untested youth from accessing the program (Horizon, 2001).

2.9.2.4 Confidentiality

Confidentiality is one of the issues that concern people when they think of knowing their HIV serostatus. Many researchers reported that clients in principle are not against VCT, but they have serious doubts and anxieties about the confidentiality of HIV test results. Fear of

confidentiality is therefore an important barrier that prevents many individuals from participating in VCT programs (Van Dyk and Van Dyk, 2003).

In a study of people who were not tested before, and who didn't plan to be tested, Phillips and his colleagues found that participants, especially women in stable relationships, black people, young people and those with a lower income were only willing to be tested if no one else could have access to their results (Phillips et al, cited in Van Dyk and Van Dyk, 2003).

In an analysis of calls to 'AIDS Helpline' in South Africa, Birdsall, Hajiyannis, Nkosi, & Parker (2004) reported that callers were concerned about both the confidentiality of the process of being tested and the possibility of a positive result being disclosed to others.

2.9.2.5 Stigma and Discrimination

Stigma and discrimination seriously impede the effectiveness of HIV prevention and care efforts. Many people do not access HIV counseling and testing services because they are afraid of revealing their HIV status to their partner, family, colleagues or other community members (Alliance, 2006).

High levels of stigma and discrimination, both in the medical establishment and the general public, continue to act as powerful barriers to HIV counseling and testing. The risk of unfair treatment and physical and social isolation from family members and the community prevents people from seeking HIV counseling and testing (Alliance, 2006).

Stigmatizing attitudes among the society towards persons living with HIV/AIDS is one of the stumbling blocks for people not to get access to voluntary counseling and testing. In a national survey of adults in the United States, for example, Herek and his associates found that 38% of the respondents expressed their concern about stigma if they tested HIV positive and 44% of the clients who expressed this concern indicated that stigma influence their decisions to undergo HIV testing (Herek et al 1999, cited in Kalichman and Simbayi, 2003).

Besides the western research reports on the role of stigma and discrimination as an important factor for people's reluctance to learn their HIV status through VCT, studies conducted in the African context have also disclosed that this barrier is determinant for people not to get access to VCT. In a sample study of South African mine workers, only one-third of whom had underwent VCT, fear of testing positive for HIV and potential consequences such as stigmatization, disease and death were identified by the respondents as the main barrier to testing (Day et al ,2003).

In their analysis of calls in the National AIDS Helpline in South Africa, Birdsall and his colleagues also noted that fear of stigma and discrimination emerge to be one of the most important concerns for callers (Birdsall et al ,2004).

A study conducted in Bahir Dar town of Amhara National Regional State similarly indicated that a significant percent of the research respondents were concerned about stigma and discrimination and perceived it to be a significant obstacle for not benefiting from VCT services (Micheal, 2001).

People may worry that if they are seen at a facility where HIV counseling and testing services are available, others will assume that they are HIV positive or have AIDS. They may feel ashamed for this reason. Fear of stigma and discrimination prevents them from accessing HIV counseling and testing services. If they feel secure that there will be no discrimination on the basis of their HIV status, they are more likely to seek HIV counseling and testing services (Alliance, 2006).

2.9.2.6 Fear of Mental Anguish and Depression

To know one's HIV status in the context of a stigmatizing society and without any follow up and support services or treatment can be detrimental to a person's mental and physical wellbeing (Van Dyk and Van Dyk, 2003). A study by Macintyre, Brown and Sosler, for instance, indicated that feeling of mental anguish and depression were reported by clients who believed that there is nothing they could do about being infected with HIV (Macintyre, Brown and Sosler, cited in Van Dyk and Van Dyk, 2003).

In a study conducted on commercial sex workers in South Africa, majority of the respondents reported that if their test result turns out to be positive, they didn't want to undergo VCT because this knowledge would cause them stress and depression (Morar and Ramjee, cited in Van Dyk and Van Dyk, 2003).

felt that their husbands could leave them or kill them if they happened to find out that they tested HIV positive. Similarly, Fasubaa et al (2001) found out in Nigeria that women did not take the test, because they were afraid of the reactions from their partners.

A study conducted in Dar es Salaam stated that if husbands happened to know that their wives went for HIV test, a conflict would arise as a result. Women were also afraid to be abandoned by their husbands (Horizons, 2001).

An earlier community-based survey seemed to suggest that the fear of divorce or separation may prevent wives from informing their husbands of their test results especially if it turns out to be positive (Ekanem, 2001 cited in Ekanem and Gbadegesin, 2004).

2.9.3 Other Barriers

The failure to use voluntary HIV counseling and testing services can also be attributed to a number of other factors both at individual and social level (Peltzer, Nezewi and Mohan, 2004). To exemplify, among high risk individuals in the United States, reasons given for failing to get access to VCT include fear of learning a positive result. Other barriers that the respondents identified for not seeking VCT are reluctance to think about the possibility of being positive as well as the assumption that there is little they can do about being HIV positive (Galvan and Bing, cited in Peltzer, Nezewi and Mohan, 2004).

The other but most frequent reason for not testing for HIV was lack of counseling even when VCT services were available in the health facility (Karamagi et al, 2006). In addition,

according to their study, Women do not test for HIV because their communities do not appreciate the value of VCT. Even if the woman is counseled, when she goes home for a second opinion, she will meet resistance from her circle (Karamagi et al, 2006).

CHAPTER THREE

METHODOLOGY

In this chapter, the process and methods used to conduct the study will be explained. It covers the following: design of the Study, population of the study, sample size and sampling method, data collection instrument and procedure, and method of data analysis.

3.1 Design of the Study

The study is designed based on cross-sectional survey with quantitative (descriptive) component.

3.2 Population of the study

The population of this study was all pregnant women who used ANC services in two general hospitals and one health center in Gondar town, namely, Gondar University hospital, Defense hospital and Gondar health center.

3.3 Sample size and sampling method

The total number of participants that constituted the sample was 176. Regarding the sampling method, available sampling was used.

3.4 Data collection instrument

An interviewer-administered questionnaire composed of knowledge, attitude and factor items and having both open-ended and closed-ended questions was used to collect data.

Data were collected from March 6–April 19, 2008 in the three health facilities in Gondar town (Gondar University hospital, Defense hospital and Gondar health center).

To come up with the final version of the interviewer-administered questionnaire, a pilot study was conducted on 20 pregnant women. After collecting the data, item analysis was conducted. Accordingly, two items in the factor scale having negative item –total correlation were deleted. Finally, the internal consistency of both the attitude and factor scales were computed. Results of Cronbach alpha (α) showed that both scales found to be reliable with α coefficients 0.87 for the attitude scale and 0.70 for the factor scale.

3.5 Procedure

The researcher of this study first contacted and discussed about the purpose of the study with the medical directors of the hospitals and the head of the health center. This helped the researcher to contact with the nurses who were working in the ANC service department. Then, the researcher gave training to the nurses about how to interview the subjects after explaining the purpose of the study. Finally, the interviewer-administered questionnaires were administered by the trained interviewers for about 45 days.

3.6 Method of data analysis

The results obtained from the responses of the participants were analyzed using percentage, t-test, F-test and Chi-square test (χ^2) to see the relationship between different variables.

CHAPTER FOUR

FINDINGS AND DISCUSSION

In this section, results that are based on the response of the study group are analyzed and discussed in terms of the light of knowledge obtained through available literatures. Both descriptive and inferential statistics were used to analyze the results.

4.1 Profile of the Participants

As indicated in Table 1 below, a total of 176 pregnant women with ages ranging from 18 to 38 years were involved in the study. The average age of these participants was 27. Majority (95.46%) were between 20 and 34 years. All the respondents had formal education and a large proportion had attained up to the secondary level education and nearly all the respondents (98.30%) were married. Majority (62.50%) were employed.

Table 1

Socio-demographic Characteristics of the Study Group

Socio-demographic characteristics		Frequency (N=176)	Percent
Age in years*	Less than 20	3	1.70
	20-24	38	21.59
	25-29	89	50.57
	30-34	41	23.30
	35-39	5	2.84
Level of education**	Primary	9	5.11
	Secondary	126	71.59
	Tertiary	41	23.59
Occupational status	Employed	110	62.50
	Unemployed	66	37.50
Marital status***	Single	3	1.70
	Married	173	98.30

* A participant with age above 39 was not found and average age was 27.

** There was no participant in the illiterate category of level of education.

*** There was no participant in the divorced and widow categories of marital status.

4.2 Findings

4.2.1 Knowledge of the Study Group about MTCT and its Prevention and Voluntary HIV Counseling and Testing Services

As presented in Table 2 below, majority of the respondents (93.75 %) were knowledgeable about the possibility of HIV transmission from an infected mother to her child. Only 6.25% of the respondents reported that they do not know if transmission through such route is possible. Of the total respondents who knew about the possibility of HIV transmission from an infected mother to a child, 93.33 %, 41.81% and 49.70 knew that HIV could be transmitted during

pregnancy, during delivery and during breastfeeding, respectively. Most of the respondents reported that they knew giving drug to a pregnant woman (82.42%) and avoiding breastfeeding (70.91%) as the ways of preventing HIV transmission from an HIV positive mother to her child, and only 13.33% reported that they had no idea about the ways of preventing MTCT of HIV.

When asked about the ways of checking one's HIV status, nearly all the respondents (98.86%) reported that having HIV blood testing is the only way to know one's HIV status. Only 1.14% of them said that looking symptoms can be used to check one's HIV status.

Respondents were also asked where VCT service would be available and what kind of services are in VCT centers. All of them replied that they knew the places where VCT service would be available and the kind of services offered in VCT centers. However, almost all respondents mentioned counseling and blood testing as the services offered in VCT centers.

Radio (92.61%), health center (90.91%), television (88.07%), and friends (59.09%) were the major sources of information about VCT services for the respondents. Parents and schools were also used as VCT information sources for some of the respondents.

Table 2

Knowledge of the Study Group about MTCT and its Prevention and Voluntary HIV Counseling and Testing Services

Awareness/Knowledge statement	Frequency	Percent
HIV can be transmitted from an HIV positive woman to her child (n=176)		
Yes	165	93.75
No	-	-
Don't know	11	6.25
Time of HIV transmission from infected mother to her child (n=165)*		
During pregnancy	154	93.33
During delivery	69	41.82
During breastfeeding	82	49.70
Ways of preventing HIV transmission from an HIV positive mother to her child (n=165)*		
Giving drug to the pregnant woman	136	82.42
Avoiding breastfeeding	117	70.91
No idea	22	13.33
Other	35	21.21
Ways of checking one's HIV status (n=176)		
Having blood test	174	98.86
Looking his/her physical appearance	-	-
If he/she gets sick for a long time	-	-
Looking symptoms	2	1.14
Other	-	-
Awareness about the availability of VCT services (n=176)		
Yes	176	100
No	-	-
Knowledge about the kind of services offered in VCT centers(n=176)		
Yes	176	100
No	-	-
Sources of information about VCT services (n=176)*		
Health center	160	90.91
Television	155	88.07
Radio	163	92.61
Friends	104	59.09
other	61	34.66

* Multiple responses were allowed

4.2.2 Utilization of VCT Service

As Table 3 shows most (93.18%) of the respondents had never used VCT service. Only 6.82% had used the service in the past. Although there was lower utilization by the respondents, better utilization was observed in older pregnant women, women with secondary and above level of education, single women and those who were employed than other categories. Regarding the relationship between the independent variables and utilization of the service, a significant relationship ($\chi^2_{(1, 0.05)} = 3.841$) was observed only between age and utilization of VCT service.

Table 3

Utilization of VCT Service in terms of Age, Level of Education, Occupational Status and Marital Status

Variable	Category	n	Utilization of VCT service				χ^2
			Yes		No		
			n	%	n	%	
Age in years*	15-29	130	5	3.85	125	96.15	6.915
	30-39	46	7	15.22	39	64.78	
Level of education	Primary	9	-	-	9	100	2.840
	Secondary	126	7	5.56	119	94.44	
	Tertiary	41	5	12.20	36	87.80	
Occupational status	Employed	110	9	8.18	101	91.82	0.85
	Unemployed	66	3	4.55	63	95.45	
Marital status	Single	3	1	33.33	2	66.67	3.377
	Married	173	11	6.36	163	93.64	

* Age group was categorized in to two groups for the purpose of analysis.

4.2.3 Attitude towards VCT Service

In the present study, the majority of the respondents (92.6%) reported that VCT is beneficial to prevent mother to child transmission of HIV, plan one's future life (94.3%), provide care and support services for people who test positive (90.4%) and to avoid worry and stress. In addition, pregnant women's responses to the attitude inventory showed that, even though having an HIV test is fearful, people who need to get tested for HIV are not only those who are at high risk, but with the implication that, every body need to know his/her HIV status.

When asked their wish to get tested and know their HIV status, most (84.1%) of the participants said that they are willing to undergo voluntary HIV counseling and testing. However, a large number of the respondents (67.6%) did not prefer to know their HIV status if it turns out to be positive and more than half of the respondents (57.4%) didn't want to disclose their result to their husbands and others. Only a small proportion of the respondents (21.6%) replied that they were not totally interested to get tested and know their HIV status.

Finally, a large number of the respondents (64.8%) said that if they had HIV and there was a free medicine to reduce the risk of HIV in their baby they would accept it (See Table 4 on the next page).

Table 4

Means and Percentage Distributions of Participants' Responses to the Attitudinal Scale (N=176)

S.No	Attitude Items	$\bar{x}$	SD	D	U	A	SA
1	VCT plays a significant role in the prevention of mother to child transmission of HIV	4.47	4.0	1.1	2.3	29.5	63.1
2	Knowing one's HIV status helps to plan one's future life	4.66	2.8	1.1	1.7	15.9	78.4
3	VCT helps to provide care and support services for people who test positive	4.32	2.3	2.8	4.5	41.5	48.9
4	There is no benefit of having an HIV test after I became pregnant *	4.12	56.8	24.4	2.3	7.4	9.1
5	Knowing one's HIV status helps to avoid worry and stress	4.03	5.7	7.4	10.8	30.1	46.0
6	Having an HIV test is fearful *	2.57	16.5	9.7	18.2	26.1	29.5
7	People who need to get tested are those who are at high risk *	3.86	46.6	29.0	2.3	8.5	13.6
8	I prefer not to know my HIV status if it turns out to be positive *	2.16	9.7	6.8	15.9	25.0	42.6
9	I don't want to get tested and know my HIV status *	3.94	52.8	21.6	4.0	10.2	11.4
10	I wish to get tested and know my HIV status	4.24	4.0	5.7	6.3	30.7	53.4
11	If I had HIV and there was a free medicine to reduce the risk of HIV in the baby I would accept it	3.74	11.4	9.1	14.8	23.3	41.5
12	If my HIV status becomes positive, I don't want to disclose to my husband and anyone else *	2.49	14.8	8.5	19.3	25.6	31.8

$\bar{x}$= Mean SD=Strongly disagree D=Disagree U=Undecided A=Agree SA=Strongly agree

* Variables reverse scored to calculate total attitude towards VCT so that a positive attitude has a score of 5 for each question giving a maximum score of 60 and a minimum of 12.

4.2.3.1 Attitude Scores, Mean and Standard Deviation of Subjects' Responses to the Attitude Scale

The overall attitude scores of each respondent was calculated simply by adding the scores associated with the responses made for each item (See appendix C). Then the mean and standard deviation of the overall scores of all participants was calculated. Accordingly, the mean and standard deviation of respondents' attitude score were 44.61 and 9.41, respectively.

In order to label respondents' attitude positive, neutral or negative based on their responses, first, it is necessary to know the boundary where the mean score (44.61) of respondents' attitude scores does fall on. Accordingly, in this study, the mean score fell on the "agree" continuum of the attitude scale. Therefore, it can be reported that most of the respondents had a positive attitude towards voluntary HIV counseling and testing service.

4.2.3.2 Results of t-test and One-way ANOVA on Respondents Attitude towards VCT Service by Age, Level of Education, Occupational Status and Marital Status.

In order to see whether there is significant difference between subjects with different age level, level of education, occupational status and marital status with regard to their attitude towards VCT service, t-test and one-way analysis of variance was carried out. The results are presented in Table 5 and 6 below.

Table 5

t-test Results for Significance of Mean Difference by Age, occupational Status and Marital Status.

Variable	Category	n	$\bar{x}$	SD	t
Age in years	15-29	130	44.33	9.24	-0.64
	30-39	46	45.41	9.96	
Occupational status	Employed	110	44.29	9.85	-0.61
	Unemployed	66	45.15	8.68	
Marital status	Single	3	50	9.54	0.99
	Married	173	44.52	9.41	
	df=174		p<0.01		

As shown in Table 5, the result of the analysis suggests that there is no significant difference ($t_{(174)}$ =2.61, p<0.01) between the younger (age 15-29) and the older (age 30-39) subjects with respect to their attitude towards VCT service. According to the result, the mean score of younger subjects (44.33) is not significantly lower than the mean score of older subjects (45.41). That is, subjects of the two age groups were found to have similar attitude towards VCT service. Similarly, significant difference ($t_{(174)}$=2.61, p<0.01) is not observed between employed and unemployed; and single and married subjects regarding their attitude towards VCT service.

Table 6

Summary Table of One-way ANOVA Concerning Attitude of Subjects with Primary, Secondary and Tertiary level of Education

Source	SS	df	MS	F
Between	228.66	2	114.33	1.29
Within	15284.35	173	88.35	
Total	15513.01	175		

$p<0.01$

As can be seen from Table 6, no significant difference ($F_{2/173,\ 0.01} = 4.75$) is observed among subjects with primary, secondary and tertiary levels of education regarding their attitude towards VCT service. The mean scores of each group of the subjects ($\bar{x}= 44.22$, $\bar{x}= 43.97$ and $\bar{x}= 46.68$, respectively) does not significantly exceed from each other. The result implies that subjects with the three levels of education have the same attitude towards VCT service.

4.2.4 Factors Preventing Pregnant Women from Using VCT Service

Here those participants who had never used VCT service were asked to rate the factors that prevent them from using VCT service as "not important," "less important," "important" or "very important." Accordingly, among the total 19 factors assumed to be preventing untested participants from using VCT service (See Appendix A), as the ratio of each item indicates, only eight were rated as "important" or "very important" by the majority of the respondents. The rest were rated by the majority of the respondents as "less important" or "not important."

Besides, mean value of each factor item indicated that those eight items rated as "important" or "very important" by a large number of the respondents had means greater than the overall mean, i.e. 2.5, (See Appendix D).

Therefore, based on the result of this study, lack of risk perception, fear of stigma and discrimination if tested positive, fear of worry and stress if tested positive, fear of a positive result, doubt about the confidentiality of VCT services, fear of rejection by a partner if tested positive, lack of encouragement from a partner and lack of sufficient counseling service were identified as important factors for the majority of the respondents not to utilize VCT services. Ratios and means of the major factors preventing pregnant women from using VCT service are presented in Table 7 below.

Table 7

Ratios and Means of the Major Factors Preventing Pregnant Women from Using VCT Service as Reported by the Subjects (N=164)

Responses	**Items**							
	1	2	3	4	5	6	7	8
Very important	0.56	0.48	0.44	0.54	0.43	0.56	0.45	0.45
Important	0.34	0.37	0.36	0.24	0.35	0.23	0.38	0.37
Less important	0.08	0.10	0.10	0.12	0.10	0.14	0.09	0.09
Not important	0.02	0.05	0.10	0.10	0.12	0.07	0.08	0.09
Mean	3.43	3.27	3.13	3.22	3.10	3.27	3.20	3.19

4.3 Discussion

The findings of the present study are going to be discussed in line with the major topics.

4.3.1 Knowledge of the study participants about mother to child transmission and VCT service.

4.3.2 Relationship between age, level of education, occupational status and marital status; and utilization of VCT service.

4.3.3 Attitude of the study participants towards VCT

4.3.4 Factors that affect pregnant women's utilization of VCT service.

4.3.1 Knowledge of the study participants about Mother to Child Transmission of HIV and VCT service

The present study showed that knowledge of mother to child transmission of HIV and its prevention was high. Majority of the participants know about the possibility of HIV transmission from an infected mother to her child including the time or period of transmission. Similarly, most of the participants reported that mother to child transmission of HIV can be prevented by giving drug to a pregnant women and a large proportion of them replied that it can also be prevented by avoiding breastfeeding. This finding is contrary to previous reports (Ekanem and Gbadegesin, 2004, Addo,2005, Iliyasu et al,2005 and Maria,2006) that showed lower or poor level of knowledge of pregnant women about mother to child transmission of HIV and aspects of its prevention .

In disagreement with the present finding, UNAIDS (2002) revealed that women attending antenatal services in hospitals and clinics very often have little or no knowledge about mother to child transmission of HIV and voluntary HIV counseling and testing.

Regarding knowledge about VCT service, the study depicted that almost all the participants knew the way through which one can check his/her HIV status . They reported that the only way through which one can check his /her HIV status is by having blood testing. In the same way, the entire participants were aware of the availability of voluntary HIV counseling and testing service and the kind of services offered in VCT centers. In agreement with this finding, Iliyasu et al (2005) and Mtombeni (2004) showed that most participants were aware of HIV counseling and testing services and where the service would be available.

Regarding the sources of information, the study revealed that radio, health center, television and friends were identified as the major ones. This is in line with the findings of Michael (2001) and Iliyasu et al (2005) which showed radio/mass media, health workers and friends as the major sources of information about VCT service and its availability.

4.3.2 Utilization of VCT service and its Relationship with Independent Variables

The present study showed that most (93.18%) of the study participants had never used Voluntary HIV counseling and testing service. This finding agrees with the findings of Obermeyer (2007); and Enosolease and Offor (2004) in which the former revealed the lower utilization of voluntary HIV counseling and testing, globally, and the latter showed lower utilization of the service among Nigerian Pregnant Women.

The result of this study revealed a statistically significant relationship between age and Utilization of VCT service ($p<0.05$) where better utilization was observed among older

pregnant women than the younger ones. This finding agrees with the finding of Enosolease and Offor (2004). According to the finding of these researchers, pregnant women's utilization of voluntary HIV counseling and testing increases with a corresponding increase of age. Age has been shown to be a significant factor in the determination of whether mothers will accept HIV testing because of higher risk perception among older women. Contrary to this finding, Banerjee (1990) stated that age was not considered to be a confounder to the utilization of voluntary HIV counseling and testing.

However, utilization of VCT service was not significantly related to participants' level of education. In line with this finding, while some researchers reported that a lower education level is associated with higher utilization of VCT (Fernandez et al, 2005), a study conducted by Bajunirwe and Muzoora (2005) showed the opposite, where better utilization was related to higher level of education than lower level of education. This study also depicted lack of significant association between utilization of VCT service and occupational status. Related to this, while some previous findings showed better utilization of VCT among employed than unemployed pregnant women (Kowalczyk et al, 2002), others found better utilization of the service by unemployed pregnant women (Enosolease and offor, 2004). The finding of the present study agrees neither of these previous findings.

Still this study didn't show significant relationship between utilization of VCT service and participants' marital status. This finding is contrary to previous report that showed significant relationship between martial status and utilization of VCT service where better utilization was observed in married clients (Nguyen, Shafi and Sutham, 2007). But it agrees with the finding

of Ekanem and Gbadegesin (2004) which revealed lack of relationship between marital status and utilization of VCT service.

4.3.3 Attitude of Pregnant Women towards VCT service

This study depicted that pregnant women's attitude towards VCT service was positive. The greater part of the respondents reported that voluntary HIV counseling and testing is essential to prevent mother to child transmission of HIV, plan one's future life, provide care and support services for people who test positive and to avoid worry and stress . Most of them believed that every body needs to know his/her HIV status.

In addition, even though a large proportion of the respondents reported that having an HIV test is fearful, more than eighty four percent of them were willing to utilize VCT service. However some of them were not totally interested to undergo voluntary HIV counseling and testing.

The study also showed that most of the respondents were ready to accept a positive test result provided that there is free medicine to reduce the risk of transmission to their baby.

Regarding test result disclosure, more than half of the participants preferred to keep it personal. In general, whether one's HIV status turns out to be positive or negative, VCT is considered by the majority of the study participants as an important intervention strategy in the prevention of mother to child transmission of HIV.

Previous studies conducted on attitude of pregnant women and other groups of a society towards voluntary HIV counseling and testing showed that such above cases often exist. An investigation on attitude to HIV and HIV testing among health professionals and pregnant antenatal care attendants in high prevalence areas of China, for example, showed that the respondents' attitude to HIV testing was generally positive. A national survey conducted in south Africa by Van Dyk and Van Dyk (2003) similarly revealed that most of the participants believed that every person should know his/her HIV status and a large proportions of them were personally prepared to undergo VCT.

Similarly, a study conducted on Namibian pregnant women by Mtombeni (2004) showed that most participants were supportive of routine prenatal HIV testing.

A study conducted in South West Nigeria by Fasubaa and his colleagues indicated that the women who accepted the test did so because they wanted to prevent the HIV transmission from the mother to the baby. Similarly, Ekanem and Gbadegesin (2004) found out that a large proportion of the respondents were willing to undergo HIV test in the current pregnancy. And the number willing to be tested increased, particularly, if it would assist in the prevention of mother to child transmission of HIV.

Regarding the differences in attitude, the study did not show significant difference between younger and older age group, employed and unemployed subjects, single and married subjects, and among subjects with different levels of education. In agreement with this finding, Hesketh et al (2005) found out that there were no significant differences in attitudes to

voluntary HIV counseling and testing between the different socio-economic statuses of their study group.

In general, as it is observed above, most study findings showed that pregnant women have favorable attitude towards voluntary HIV counseling and testing service. Despite this, a frequently observed pattern is the discrepancy between intent to be tested and actual behavior. Because of worries about consequences, individuals often do not execute their plan to take HIV tests (Meadows, Catalan and Gazzard, 1993).

4.3.4 Factors that Affect Pregnant Women's Utilization of VCT service

From the present study, it was found out that among the total participants, only 6.82% had utilized voluntary HIV counseling and testing service. This implies that even though pregnant women have good knowledge and positive attitude towards VCT service, most of them didn't utilize the service. A research conducted in six African countries by Glick (2005) coincides with this finding. His study showed that two thirds or more of respondents stated they would like to get tested, but the proportion of those who reported being tested was much lower, around 15% in some settings.

Although not plentiful, available research evidences indicate that individuals' reluctance to utilize voluntary HIV counseling and testing service is attributed to the occurrence of different factors. The present study depicted that among nineteen factors assumed to explain pregnant women's reluctance to utilize voluntary HIV counseling and testing service only eight were found to be determinant. These are discussed below.

4.3.4.1 Lack of Risk Perception

One of the decisive factors for pregnant women's failure to use Voluntary HIV counseling and testing service was lack of risk perception. Most of the participants who didn't use VCT service reported that they had not done so because they felt that they couldn't possibly be HIV positive since they didn't expose to different risk factors. This finding is consonant with what was found by the Hareg Project (2004) report which revealed that many women do not think that they are at risk of HIV because they are faithful to their husbands and assume that their husbands are faithful to them. Similarly, the finding of Ekanem and Gbadegesin (2004) also support the present study finding. They found out that many of the women surveyed did not perceive themselves to be at risk of HIV infection. According to them, this may be due to the fact that these women were married and may have viewed them selves as faithful partners to their spouses.

4.3.4.2 Fear of a Positive Result and its Associated Outcomes: Stigma and Discrimination; Worry and Stress; and Fear of Rejection by a Partner

One of the major factors that contribute to pregnant women's failure to utilize voluntary HIV counseling and testing service was fear of a positive result. Of the total participants who didn't use VCT, 78.1% reported that they didn't so because of fear of a positive result. This is in line with the study conducted by Toivo (2005) which revealed that some pregnant women had a problem regarding the test, because they were scared of the positive result. In his finding, pregnant women reported that the positive result would bring death nearer. They also didn't want to be known as people living with HIV/AIDS. There fore, for them it was better not to be

tested in order to avoid stress or even provoke it. By the same token, a study conducted by Fasubaa and his colleagues indicates that the women could not take the HIV test because they were afraid of the out come of the results (Fasubaa et al, 2001). In addition, a survey of high risk individuals in the United States revealed that fear of a positive result was found to be a decisive barrier by the majority of the respondents (Galvan, Bing and Bluthental, cited in Peltzer, Nzewi and Mohan, 2004).

Stigma and discrimination was another factor that hinders pregnant women from utilizing VCT service. 84.8% of the respondents who didn't use the service reported that they are afraid of seeking VCT service because of the stigma and discrimination that might come if they tested positive. This sentiment was supported by different previous studies (Alliance, 2006; Herek et al, cited in Kalichman and Simbayi, 2003; Day et al 2003; Birdsall et al , 2004; and Micheal, 2001). High levels of stigma and discrimination, both in the medical establishments and general public, continue to act as powerful barriers to HIV counseling and testing (Alliance, 2006). In a national survey of adults in the United States, Herek and his colleagues found that 38% of the respondents expressed their concern about stigma if they tested HIV positive and 44% of the clients who expressed this concern indicated that stigma influence their decisions to undergo HIV testing (Herek et al, cited in Kalichman and Simbayi, 2003). A study conducted in South Africa also showed that stigma and discrimination was determinant for people not to get access to VCT (Day et al, 2003). In the same token, a study conducted by Micheal (2001) in Bahir Dar town revealed that a significant percent of the research respondents were concerned about stigma and discrimination and perceived it to be a significant obstacle for not benefiting from VCT services. Besides, in their analysis of calls in the National AIDS Helpline

in South Africa, Birdsall and his colleagues noted that fear of stigma and discrimination emerge to be one of the most important concerns for callers (Birdsall et al, 2004).

The other major factor that deters participants, according to their report, from utilizing VCT service is fear of Worry and stress if they tested positive. Of the total participants who didn't use VCT service, 36% and 43.9% rated this factor as" important" and "very important" respectively. This is in line with the study conducted in South Africa on commercial sex workers where majority of the respondents reported that if their test result turns out to be positive they didn't want to undergo VCT because this knowledge would cause them stress and depression (Morar and Ramjee, cited in Van Dyk and Van Dyk, 2003).

Another factor that affected participants' utilization of VCT service in the present study was fear of rejection by a partner if tested positive. 78.1% percent of the participants reported that they didn't use the service because they were afraid of their husbands. This finding is in agreement with the findings of Bajunirwe and Muzoora (2005), Toivo (2005), Fasubaa et al (2001) and (Horizons, 2001). In their study, Bajunirwe and Muzoora (2005) found out that the strongest factor predicting the willingness or intent to accept an HIV test was the woman's perception that the husband would approve of her being tested. Similarly, in a study conducted in Namibia by Toivo (2005), participants agreed that they could not take the test because they were afraid of their husbands who might hear about their results. In addition, Fasubaa et al (2001) found out in Nigeria that women did not take the test, because they were afraid of the reactions from their partners. A study conducted in Dar es Salaam also stated that if husbands

happened to know that their wives went for HIV test, a conflict would arise as a result. Women were also afraid to be abandoned by their husbands (Horizons, 2001).

4.3.4.3 Doubt about the Confidentiality of VCT Services

This is another decisive factor determining pregnant women's reluctance to utilize VCT service. In the present study, 45.1% and 37.8%of the respondents considered this factor as "very important" and "important". In line with this finding, Van Dyk and Van Dyk (2003) stated that fear of confidentiality is an important barrier that prevents many individuals from participating in VCT programs. Similarly, in an analysis of calls to 'AIDS Helpline' in South Africa, Birdsall, Hajiyannis, Nkosi, & Parker (2004) reported that callers were concerned about both the confidentiality of the process of being tested and the possibility of a positive result being disclosed to others.

4.3.4.4 Lack of Encouragement from a Partner

In addition to fear of rejection, lack of encouragement from a partner to undergo VCT was found as one of the major factors that deter participants of the present study from using VCT service. 56.1% and 22.6% of the respondents rated this factor as "very important" and "important" respectively. A qualitative study done in Dar es Salaam agrees with this finding. This study revealed that women preferred to seek permission from their partners prior to testing in order to avoid violence (Horizons, 2002). Similarly, Bajunirwe and Muzoora (2005) found out that women who thought their husbands would approve were almost six times more likely to report a willingness to be tested compared to those who thought their husbands would not approve.

4.3.4.5 Inadequate Counseling Service

This is the other prevalent factor that dissuades participants of the present study from using VCT service. Of the total respondents who didn't use the service, 82.3% reported inadequate counseling service as a decisive factor preventing them from using the service. In relation to this, Karamagi et al (2006) stated that the most frequent reason for not testing for HIV was lack of counseling even when VCT services were available in the health facility. Similarly, Obermeyer (2007) stated that the issues surrounding counseling represent a major challenge for the utilization of testing.

Other factors like not knowing where VCT service can be done, distance of VCT service, fear of getting hopeless if tested positive, inconvenient hours of VCT services, lack of interest on the part of partners to have HIV testing, absence of open discussion about VCT, traditional unacceptability of VCT in a society, lack of knowledge about availability of antiretroviral therapy for pregnant women and lack of care and support services for people who test positive were considered as "less important" or "not important" factors by the majority of the respondents.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

In the previous chapter the findings of the study were presented and discussed in detail. In this chapter the summary of the study and findings is presented. Conclusions are also drawn on which recommendations are based.

5.1 Summary

The study was primarily conducted to assess pregnant women's utilization of and attitude towards voluntary HIV counseling and testing service. As specific objectives, knowledge of pregnant women about mother to child transmission and its prevention and voluntary HIV counseling and testing service; relationship between the different independent variables (age, level of education, occupational status and marital status) and utilization of VCT service; attitude of the study participants towards voluntary HIV counseling and testing service; and factors that affect participants' utilization of voluntary HIV counseling and testing service were explored.

The target population for the study was pregnant women who attended antenatal care service in hospitals and health center in Gondar town which comprised from age 18 to 38. A total of 176 samples were included in the study using available sampling method.

An interviewer-administered questionnaire which composed of knowledge, attitude and factor items was used to collect data for the study. After collecting the data, they were tabulated,

analyzed and interpreted. Both descriptive and inferential statistics were used to analyze the data.

The study found out that most of the study participants had knowledge about mother to child transmission of HIV and ways of its prevention. Similarly, they had good knowledge about voluntary HIV counseling and testing service.

Regarding pregnant women's attitude, the study showed that most of the respondents had positive attitude towards voluntary HIV counseling and testing service and no significant difference was observed between and/or among the subgroups (i.e. age, level of education, occupational status and marital status). However, in spite of the good knowledge and the positive attitude that the participants had, most of them had never used the service.

The study also found out that except age the other independent variables had no significant association with utilization of voluntary HIV counseling and testing service.

Such major factors as lack of risk perception, fear of a positive result, fear of stigma and discrimination if tested positive, fear of worry and stress if tested positive, doubt about the confidentiality of VCT services, fear of rejection by a partner if tested positive, lack of encouragement by a partner and inadequate counseling service were found out as hindrances for pregnant women utilization of voluntary HIV counseling and testing service.

5.2 Conclusion

Based on the results of this study, the following conclusions were drawn.

Knowledge about MTCT of HIV and its prevention and voluntary HIV counseling and testing service; and positive attitude towards voluntary HIV counseling and testing service didn't contribute to utilization of the service due to the presence of other factors. The major factors that affected pregnant women's utilization of VCT service include fear of a positive result and its associated out comes such as stigma and discrimination, fear of worry and stress, and fear of rejection by a partner; lack of risk perception; lack of encouragement from a partner; doubt about the confidentiality of VCT services; and inadequate counseling service.

5.4 Recommendations

Based on the findings of this study, the following recommendations are given:

1. Major efforts are needed to reduce stigma and discrimination in the communities.
2. There should be a need for health workers to be adequately trained on counseling before HIV testing for PMTCT begins in any health facility.
3. Community education about the importance of voluntary antenatal counseling and testing and PMTCT should be strengthened. It will encourage community involvement and the reduction of stigma and discrimination in the society. It will also improve the knowledge about the benefits of voluntary antenatal counseling and testing. Information and education empower individuals to make correct decisions concerning health care.
4. Since the health workers are the important support system for pregnant women with HIV/AIDS, they should keep the information regarding the HIV results confidential and provide care and support to those who are HIV positive.

5. Effective communication and cooperation should be encouraged between partners. It will increase male involvement in the program and ensure that men know the importance of voluntary antenatal counseling and testing. Male involvement will allow both partners to accept and share their results (negative or positive results).

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Appendices

Appendix A

Addis Ababa University

School of Graduate Studies

Department of Psychology

Interview schedule

Dear respondent

This interview schedule is designed to collect data on pregnant women's utilization of and attitude towards voluntary HIV counseling and testing service. The information obtained from the questionnaire is believed to have a valuable contribution in the prevention and control of mother to child transmission of HIV. Therefore, you are kindly requested to give genuine answer for all items provided in the interview schedule.

You are not required to tell your name.

Thank you in advance for your kind cooperation!

Part One

Complete the following information

1. Age
    A. < 20
    B. 20-24
    C. 25-29
    D. 30-34
    E. 35 39
    F. ≥ 40
2. Level of education
    A. Illiterate
    B. Primary
    C. Secondary
    D. Tertiary

3. Occupational status

A. Employed

B. Unemployed

4. Marital status

A. Single

B. Married

C. Divorced

D. Widow

Part Two

The following items are presented to assess pregnant women's awareness about HIV/AIDS, mother to child transmission of HIV and how to prevent it and voluntary HIV counseling and testing service. Listen each item carefully and give your response to each question.

1. How does a person get infected by the HIV virus? (You can answer more than one).

A. Unsafe sexual intercourse

B. Infected mother to child

C. Sharing unsterile materials

D. Transmission through blood

If any other, please specify _____

2. Can an HIV positive woman transmit HIV to her baby?

A. Yes B. No C. I don't know

3. When does transmission from infected mother to her baby occur? (You can answer more than one).

   A. During pregnancy

   B. During delivery

   C. During breastfeeding

4. How can HIV transmission from a positive mother to her baby be prevented? (You can answer more than one).

   A. Giving drug to pregnant woman

   B. Avoiding breast feeding

   C. I have no idea

   D. If any other, please specify _____

   _____

5. How do you think one can check whether or not he/she is infected with HIV? (You can answer more than one).

   A. BY having blood test

   B. By looking his /her physical appearance

   C. If he/she gets sick for a long time

   D. When he/she observes some symptoms

   E. If any other, please specify _____

   _____

6. Do you know where would you get voluntary HIV counseling and testing service?

   A. Yes B. No

7. Do you know the kind of services that voluntary HIV counseling and testing centers offer?

   A. Yes B. No

8. If your answer for item number 7 is "yes", would you please list the services.

_____

_____

_____

9. If your answers for item number 6 and 7 are "Yes ", what is/are the source(s) of your information? (You can answer more than one).

A. Health center

B. Television

C. Radio

D. Friends

E. If any other, please specify _____

10. Have you used voluntary HIV counseling and testing service since you have become pregnant?

A. Yes B. No

Part Three

The following are items that reflect pregnant women's attitudes towards VCT. For each item five ratings are provided. Listen to each item carefully and choose only one of the alternatives.

No	Attitude items	Ratings				
		SD	D	U	A	SA
1	VCT plays a significant role in the prevention of mother to child transmission of HIV					
2	Knowing one's HIV status helps to plan one's future life					
3	VCT helps to provide care and support services for people who test positive					
4	There is no benefit of having an HIV test after I became pregnant					
5	Knowing one's HIV status helps to avoid worry and stress					
6	Having an HIV test is fearful					
7	People who need to get tested are those who are at high risk					
8	I prefer not to know my HIV status if it turns out to be positive					
9	I don't want to get tested and know my HIV status					
10	I wish to get tested and know my HIV status					
11	If I had HIV and there was a free medicine to reduce the risk of HIV in the baby I would accept it					
12	If my HIV status becomes positive, I don't want to disclose to my husband and anyone else					

Part Four

Below the factors that pregnant women feel important for not utilizing VCT services are presented. Each factor is provided with four ratings (1=Not important, 2=Less important, 3=Important and 4=Very important). Listen to each factor carefully and choose only one of the ratings.

No	Factors	Ratings			
		1	2	3	4
1	Feeling that I can't possibly be HIV positive because I am not exposed to different risk factors				
2	Fear of the stigma of being tested because if people see me going to the centre, they will think that I have AIDS				
3	Not knowing where VCT service can be done				
4	The center where VCT service is provided is too far away				
5	Fear of stigma and discrimination if tested positive				
6	Fear of getting hopeless if tested positive				
7	Fear of worry and stress if tested positive				
8	Fear of a positive result				
9	Fear of rejection by a partner if tested positive				
10	No encouragement from my partner to undergo VCT				
11	Doubt about the confidentiality of VCT services				
12	Inconvenient hours of VCT services				
13	My partner doesn't want me to have HIV testing				
14	Absence of open discussion about VCT				

15	VCT is not traditionally acceptable in our society				
16	Feeling that if tested positive I can do nothing because AIDS drugs are too expensive and are not available				
17	Lack of knowledge about availability of antiretroviral therapy for pregnant women				
18	Luck of sufficient counseling service				
19	Since there are no care and support services for people who test positive				

Appendix B

Amharic Version of the Interview Schedule

አዲስ አበባ ዩኒቨርሲቲ
የድህረ ምረቃ ትምህርት ቤት
የሳይኮሎጅ ትምህርት ክፍል

መጠይቅ

ውድ የዚህ መጠይቅ ተሳታፊ

ይህ መጠይቅ የተዘጋጀው ነፍሰ ጡር ሴቶች ስለ በፈቃደኝነት ላይ የተመሰረተ የኤች አይ ቪ የምክርና የምርመራ አገልግሎት አጠቃቀምና ስለ አገልግሎቱ ያላቸውን አመለካከት በተመለከተ መረጃ ለመሰብሰብ ታስቦ ነው:: ከመጠይቁ የሚገኘው መረጃ ከእናት ወደ ልጅ ያለውን የኤች አይ ቪ ስርጭት ለመከላከልና ለመግታት ጉልህ አስተዋፅኦ ይኖረዋል ተብሎ ይታመናል:: ስለዚህ በመጠየቁ ለቀረቡት ሁሉም ጥቃቄዎች ትክክለኛና እውነተኛ መልስ እንዲሰጡ በአክብሮት እጠይቃለሁ::

ስመዎትን መናገር አያስፈልግም፡፡

ለሚያድረጉልኝ ቀና ትብብር በቅድሚያ አመሰግናልሁ፡፡

ክፍል አንድ

ከዚህ ቀጥሎ ለሚቀርቡት ጥያቄዎች መልሰዎን ይስጡ

1. *እድሜ*

   ሀ/ < 20

   ለ/ 20-24

   ሐ/ 25-29

   መ/ 30-34

   ሠ/ 35-39

   ረ/ ≥ 40

2. *የትምህርት ደረጃ*

   ሀ/ ያልተማረች /ማንበብና መፃፍ የማትችል/

   ለ/ የመጀመሪያ ደረጃ ያጠናቀቀች

   ሐ/ የሁለተኛ ደረጃ ያጠናቀቀች

   መ/ የከፍተኛ ትምህርት ያጠናቀቀች

3. *የስራ ሁኔታ*

ሀ/ ስራ ያላት

ለ/ ስራ የሌላት

4. *የጋብቻ ሁኔታ*

ሀ/ ያላገባች

ለ/ ያገባች

ሐ/ የተፋታች

መ/ ባሏ የሞተባት

ክፍል ሁለት

ከዚህ ቀጥሎ የሚቀርቡት ጥቃቄዎች ነፍሰጡር ሴቶች ኤች አይ ቪ ኤድስን፣ ከእናት ወደ ልጅ የኤች አይ ቪ ስርጭትን እና እንዴት መከላከል እንደሚቻል እንዲሁም ስለ በፈቃደኝነት ላይ የተመሰረተ የኤች አይ ቪ የምክርና የምርምራ አገልግሎት በተመለከተ ያላቸውን ግንዛቤ ለመረዳት ነው። እያንዳንዱን ጥያቄ በጥንቃቄ ካዳመጡ በኋላ መልሰዎን ይስጡ።

1. አንድ ሰው በኤች አይ ቪ ቫይረስ ሊያዝ የሚችለው እንዴት ነው? (ከአንድ በላይ መመለስ ይቻላል)።

ሀ/ ጥንቃቄ በጎደለው የግብረስጋ ግንኙነት

ለ/ በቫይረሱ ከተያዘች እናት ወደ ልጅ

ሐ/ በደንብ ያልፀዱ ስለታም መሳሪዎች በጋራ በመጠየም

መ/ደም በመለገስ

ሠ/ ሌላ ካለ ይጥቀሱ _____

2. ኤች አይ ቪ በደሟ ውስጥ የሚገኝ እናት ኤች አይ ቪን ወደ ልጇ ታስተላልፋለች?

ሀ/ አዎ ለ/ የለም ሐ/ አላውቅም

3. ከኤች አይ ቪ ቫይረስ ካላባት እናት ወደ ልጁ የሚፈተላለፈው መቼ ነው? (ከአንድ በላይ መመለስ ይቻላል)፡፡

ሀ/ በእርግዝና ወቅት

ለ/ በወሊድ ወቀት

ሐ/ ጡት በማጥባት ወቅት

4. ኤች አይ ቪን ቫይረሱ ካላባት እናት ወደ ልጇ እንዳይተላለፍ መከላከል የሚቻለው እንዴት (ከአንድ በላይ መመለስ ይቻላል)፡፡

ሀ/ መድሀኒት ለነፍሰጡሯ በመስጠት

ለ/ ጡት ማጥባትን በማቆም

ሐ/ ምንም አላውቅም

መ/ ሌላ ካለ ይጥቀሱ _____

5. አንድ ሰው /አንዲት ሴት/ ኤች አይ ቪ በደሙ /ሚ/ ውስጥ መኖር ወይ አለመኖሩን ማወቅ የሚችለው /የምትችለው/ እንዴት ይመስለዎታል?(ከአንድ በላይ መመለስ ይቻላል)፡፡

ሀ/ የደም ምርመራ በማድረግ

ለ/ የፊት ገፅታውን /ዋን/በማየት

ሐ/ ለረጅም ጊዜ ከታመመ/ች/

መ/ ምልክቶች ሲታይ

ሠ/ ሌላ ካለ ይጥቀሱ _____

6. በፈቃደኝነት ላይ የተመሰረተ የኤች አይ ቪ የምክርና የምርመራ አገልግሎት የት እንሚያገኙ ያውቃሉ?

ሀ/ አዎ ለ/ አላውቅም

7. በፈቃደኝነት ላይ የተመሰረተ የኤች አይ ቪ የምክርና የምርመራ አገልግሎት መስጫ ማዕከሎች ምን አይነት አገልግሎቶች እንደሚሰጡ ያውቃሉ?

ሀ/ አዎ ለ/ አላውቅም

8. ለጥቃቄ ቁጥር 7 መልሰዎ "አዎ" ከሆነ የሚሰጡትን አገልገሎቶች ይጥቀሱ

_____

_____

_____

9. ለጥያቄ ቁጥር 6 እና 7 መልሰዎ "አዎ" ከሆነ የመረጃ ምንጭዎ ምንድን ነው/ናቸው?(ከአንድ በላይ መመለስ ይቻላል)፡፡

ሀ/ የጤና ማዕከል

ለ/ ቴሌቪዥን

ሐ/ ሬዲዮ

መ/ ጓደኞችዎ

ሠ/ ሌላ ካለ ይጥቀሱ _____

10.ነፍሰጡር ከሆኑበት ጊዜ ጀምሮ ባለው ጊዜ በፊቃደኝነት ላይ የተመሰረተ የኤች አይቪ የምክርና የምርመራ አገልግሎት ተጠቅመው ያውቃሉ?

ሀ/ አዎ ለ/ የለም

ክፍል ሦስት

ከዚህ ቀጥሎ የተዘረዘሩት ዐረፍተ ነገሮች ነፈሰጡር ሴቶች በፍቃደኝነት ላይ ስለተመሰረተ የኤች አይ ቪ የምክርና የምርመራ አገልግሎት ያላቸውን አመለካከት ለመረዳት የቀረቡ ናቸው:: ለእያንደንዱ ዐረፍተ ነገር አምስት አማራጮች ቀርበዋል:: እያንዳንዱን ዐረፍተ ነገር በጥንቃቄ ካዳመጡ በኋላ ከቀረቡት አማራጮች አንዱን በመምረጥ መልስ ይስጡ::

ተ.ቁ	ስለ ኤች አይ ቪ የምክርና የምርመራ አገልግሎት አስተያየት	አማራጮች				
		በጣም አልስማማም	አልስማማም	ለመወሰን እቸገራለሁ	እስማማለሁ	በጣም እስማማለሁ
1	የኤች አይ ቪ የምክርና የምርመራ አገልግሎት ከእናት ወደ ልጅ ያለውን የቫይረስ ስርጭት ለመከላከል ጠቀሜታ አለው					
2	የራስን የኤች አይ ቪን ሁኔታ (የምርመራ ውጤት) ማወቅ ለወደፊት ህወት አስፈላጊውን ጥንቃቄ ለማድረግ የጠቅማል					
3	የኤች አይ ቪ የምክርና የምርመራ አገልግሎት ለቫረሱ ተጠቂዎች እንክብካቤና ድጋፍ ለማድረግ ይረዳል					
4	ነፍሰጡር ከሆንኩ በኋላ የኤች አይ ቪ ምርመራ ማድረግ ጥቅም የለውም					
5	የራስን የኤች አይ ቪ ሁኔታ (የምርመራ ውጤት ማወቅ ከሀሳብና ከጭንቀት ለመላቀቅ ይጠቅማል					

6	የኤች አይ ቪ ምርመራ ማድረግ አስፈሪ ነው					
7	የኤች አይ ቪ ምርመራ ማድረግ ያለባቸው ለቫይረሱ የተጋለጡ ሰዎች ናቸው					
8	የኤች አይ ቪ ምርመራ ውጤቴ ፖዘቲቭ ከሚሆን ውጤቱን ባላውቅ እመርጣለሁ					
9	የኤች አይ ቪ ምርመራ ማድረግና ራሴን ማወቅ አልፈልግም					
10	የኤች አይ ቪ ምርመራ ለማድረግና ራሴን ለማወቅ ፍላጎት አለኝ					
11	ኤች አይ ቪ በደሜ ውስጥ ከተገኘብኝና ነፃ መድኃኒት በማግኜት ወደ ልጅ መተላለፉን ከቀነሰልኝ ውጤቱን እቀበላለሁ።					
12	ኤች አይ ቪ በደሜ ውስጥ ከተገኘ ውጤቱን ለባለቤቴም ሆነ ለሌላ ሰው ማሳወቅ አልፈልግም					

ክፍል አራት

ከዚህ በታች ነፍሰጡር ሴቶች በፈቃደኝነት ላይ የተመሰረተ የኤች አይ ቪ የምክርና የምርመራ አገልግሎት ተጠቃሚ እንዳይሆኑ እንቅፋት ናቸው ሊባሉ የመሚችሉ ምክንያቶች ተዘርዝረዋል። ለእንዳንዱ ምክንያት አራት አማራጮች ተሰጥተዋል። እያንዳንዱን ምክንያት በጥንቃቄ ካዳመጡ በኋላ ከቀረቡት አማራጮች አንዱን ብቻ በመምረጥ ምላሽ ይስጡ።

ተ.ቁ	ምክንያት	አማራጮች			
		ምክንያት አይደለም	በመጠኑ ምክንያት ነው	ወሳኝ ምክንት ነው	በጣም ወሳኝ ምክንያት ነው
1	ከኤች አይ ቪ መተላለፊያ መንገዶች እራሴን ጠብቄ ስለምኖር ከቫይረሱ ነፃ ነኝ ብየ ስለማስብ				
2	የኤች አይ ቪ ምርመራ ለማድረግ ወደ ማዕከሉ ስሄድ ሰዎች ካዩኝ ኤድስ አለባት ብለው በማሰብ ያገሉኛል ብየ ስለምፈራ				
3	በፈቃደኝነት ላይ የተመሰረተ የኤች አይ ቪ የምክርና የምርመራ አገልግሎት የት እንደሚደረግ ስለማላውቅ				
4	በፍቃደኝነት ላይ የተመሰረተ የኤች አይ ቪ የምክርና የምርመራ አገልግሎት የሚሰጥበት ማዕከል ሩቅ ስለሆነ				
5	ኤች አይ ቪ በደሜ ውስጥ ከተገኘ ማግለልና መድሎ ይደርስብኛል ብየ ስለምፈራ				
6	ቫይረሱ በደሜ ውስጥ ከተገኘ በህይወት የመቆየት ተስፋ አይኖረኝም ብየ ስለምፈራ				
7	ቫይረሱ በደሜ ውስጥ ከተገኘ የሚያስከትለውን ጭንቀትና ስቃይ ስለምፈራ				
8	የኤች አይ ቪ ምርመራ ውጤቴ ፖዘቲቭ ይሆናል ብየ ስለምፈራ				
9	ቫይረሱ በደሜ ውስጥ ከተገኘ ባለቤቴ ይለየኛል ብየ ስለምፈራ				
10	ባለቤቴ በፈቃደኝነት ላይ የተመሰረተ የምክርና የደም ምርመራ እንዳደርግ ስለማያበረታታኝ				

11	የኤች አይ ቪ የምክርና የምርመራ አገልግሎት የሚሰጡ ባለሙያዎ ሚስጥር ያወጡብኛል ብየ ስለምፈራ				
12	የኤች አይ ቪ የምክርና የደም ምርመራ ለማድረግ የተመቻቼ ጊዜ ስለሌለኝ				
13	ባለቤቱ የኤች አይ ቪ ምርመራ እንዳደርግ አይፈልግም				
14	ስለ ኤች አይ ቪ የምክርና የምርመራ አገልግሎት ግልፅ ውይይት ስሌለለ				
15	በፈቃደኝነት ላይ የተመሰረተ የኤች አይ ቪ የምክርና የደም ምርመራ ማድረግ በባህላችን ተቀባይነት ስለሌለው				
16	መድሀኒቱ ውድና ስለማይገኝ ቫይረሱ በደሜ ውስጥ ከተገኘ ምንም ማድረግ አልችልም ብየ ስለማስብ፡፡				
17	ለነፍሰጡር እናቶች የፀረ-ኤች አይ ቪ ህክምና እንዳለ ግንዛቤው ስለሌለኝ				
18	በቂ የምክር አገልግሎት ስለሌለ				
19	ከቫይረሱ ጋር ለሚኖሩ ሰዎች አስፈላጊው ድጋፍና እገዛ ስለማይደረግ				

Appendix C

Respondents' Overall Attitude Score

Respondent	Overall Attitude Score/x/	Respondent	Overall Attitude Score/x/	Respondent	Overall Attitude Score/x/
1	48	39	56	77	46
2	31	40	41	78	55
3	45	41	51	79	48
4	54	42	25	80	40
5	22	43	44	81	32
6	57	44	46	82	46
7	46	45	48	83	59
8	45	46	59	84	53
9	46	47	32	85	42
10	36	48	49	86	46
11	59	49	39	87	59
12	45	50	52	88	18
13	54	51	40	89	48
14	39	52	49	90	60
15	38	53	45	91	39
16	41	54	58	92	34
17	31	55	27	93	48
18	60	56	37	94	44
19	49	57	47	95	16
20	50	58	46	96	58
21	38	59	40	97	39
22	55	60	48	98	45
23	47	61	30	99	43
24	47	62	41	100	48
25	32	63	47	101	43
26	50	64	60	102	60
27	24	65	47	103	42
28	52	66	38	104	51
29	40	67	42	105	47
30	46	68	43	106	39
31	48	69	51	107	37
32	51	70	38	108	53
33	28	71	40	109	26
34	44	72	43	110	48
35	55	73	38	111	46
36	24	74	51	112	46
37	46	75	37	113	43
38	36	76	49	114	45

Appendix C - Continued

Respondent	Overall Attitude Score /x/	Respondent	Overall Attitude Score /x/	Respondent	Overall Attitude Score /x/
115	49	136	52	157	48
116	41	137	27	158	42
117	48	138	60	159	50
118	40	139	45	160	45
119	60	140	58	161	55
120	37	141	50	162	46
121	49	142	25	163	49
122	46	143	52	164	51
123	58	144	30	165	47
124	36	145	59	166	39
125	18	146	58	167	46
126	51	147	47	168	32
127	41	148	43	169	42
128	57	149	49	170	49
129	38	150	47	171	53
130	48	151	49	172	55
131	48	152	38	173	36
132	29	153	47	174	57
133	60	154	46	175	47
134	49	155	54	176	35
135	41	156	23		$\sum x=7852$

Appendix D

Ratios and Mean for the Observed Frequency Distribution of Participants' Responses to the Factor Items (N=164)

	Items																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Very important	0.56	0.21	0.00	0.14	0.48	0.15	0.44	0.54	0.43	0.56	0.45	0.20	0.11	0.16	0.04	0.09	0.27	0.45	0.21
Important	0.34	0.16	0.01	0.09	0.37	0.09	0.36	0.24	0.35	0.23	0.38	0.13	0.10	0.07	0.10	0.08	0.21	0.37	0.24
Less important	0.08	0.17	0.11	0.31	0.10	0.32	0.10	0.12	0.10	0.14	0.09	0.18	0.20	0.33	0.22	0.16	0.26	0.09	0.24
Not important	0.02	0.45	0.88	0.46	0.05	0.45	0.10	0.10	0.12	0.07	0.08	0.48	0.60	0.44	0.65	0.67	0.25	0.09	0.31
Mean	3.43	2.14	1.13	1.91	3.27	1.95	3.13	3.22	3.10	3.27	3.20	2.05	1.72	1.95	1.52	1.58	2.51	3.19	2.34

Declaration

I, the undersigned, declare that this thesis is my original work and has not been presented for a degree in any other university, and that all sources used for the thesis have been duly acknowledge.

Name: Abebe Fekadu

Signature: _____

Place: _____

Date of submission: _____

This thesis has been submitted for an examination with my approval as a university advisor.

Name: Desalegn Chalchisa (PhD)

Signature: Chalchisa

Date of approval: June 13, 2008