

UNIVERSITY OF CAPE COAST

ATTITUDE, PERCEPTION AND PSYCHO-SOCIAL BARRIERS TO HIV
AND AIDS VOLUNTARY COUNSELLING AND TESTING: A CASE
STUDY OF EXPECTANT MOTHERS IN THE CAPE COAST METROPOLIS

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CHAPTER ONE

INTRODUCTION

Background to the Study

The Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) have been a major health problem worldwide. Many world health bodies since the discovery of HIV and AIDS have been reporting frightening increases in the prevalence rates of the virus and the syndrome. According to the UNAIDS (2004) global summary of the AIDS Epidemic, 39.4 million people worldwide were living with HIV and AIDS. This body reported categorically that half of newly HIV infected persons who were about 15,000 to 16,000 per day were aged 15-24 years. This alarming rate of spread of HIV and AIDS also include Ghana. A publication in “The Mirror” a local newspaper in June, 2002 reported that cumulative AIDS cases in Ghana indicate that about a third of those with HIV and AIDS are in their 20s with most of them having contracted the disease during their early adolescent years. This is primarily due to their unguided sexual behaviour. In Nigeria, 2.7 million people are also living with the virus and the syndrome (Akanni, 2000). It has also been reported in Gambia that, out of every ten teachers that die, seven die from AIDS. In Zambia, AIDS claims about three teachers daily (Bank of Ghana Newsletter, 2001).

Since the disease is massively spreading among people of all ages, races, continents as well as countries, every individual stands at risk. To promote healthy lifestyles therefore, there is the need for every person to know his or her HIV status. Access to information on one's HIV status is a human right as well as a public health measure: people have the right to know their HIV status so that they can protect themselves and others from infection, improve their health care and plan for the future. HIV and AIDS Voluntary Counselling and Testing (VCT) services provide a supportive avenue for learning this essential health information.

VCT refers to the process of giving people professional counselling before and after the HIV test. The process helps people prepare for and understand their HIV test results. Those who test negative can learn ways to avoid being infected and those who are positive can learn how to live longer. Thus, VCT is person-centred intervention, tailored to prevent transmission and obtain referral to additional medical care, preventive, psychosocial and other needed services in order to remain healthy. It helps the individual to reach an appropriate decision and act on it.

While both men and women are vulnerable to HIV infection, it has become apparent that women have been disproportionately affected by the HIV epidemic in Ghana (NACP Bulletin, 2005). According to the National AIDS Control Programme Bulletin (2005) in Ghana data from the National AIDS/ Sexually Transmitted Infections (STIs) Control Programme show that almost two-thirds of the AIDS reported cases are females, an indication that the disproportionate rate of HIV infection among females has been around for a

while. This imbalance may occur for a number of reasons, including the fact that women are more biologically prone to infection than men during unprotected sexual intercourse. Similarly, women are more vulnerable to other Renal Tract Infections (RTIs) /Sexually Transmitted Diseases (STDs), the presence of which greatly enhances the risk of HIV infection. Also, because most Sexually Transmitted Infections (STIs) among women do not cause recognizable symptoms in the short term (as they do in men), women infected with STIs are more likely to go untreated for a longer period.

The principal purpose of testing a woman for HIV during pregnancy is therefore, to prevent any possible infection being passed on to her unborn child. Mother to Child Transmission (MTCT) can occur during pregnancy, during labour and birth or through breast feeding. Through HIV and AIDS Voluntary Counselling and Testing, the mother's infection could be identified and treated now that antiretroviral therapy is available.

Notwithstanding the positive benefits of HIV and AIDS Voluntary Counselling and Testing, many people are not prepared to know their HIV and AIDS status even though in principle, they may not be against it. The social and psychological consequences of HIV testing could be stressful. The idea that HIV and AIDS have no cure puts a lot of fear in people. There is the fear of knowing they have HIV, fear of gossip and fear of worrying to death. Besides, social stigma, discrimination and fear of rejection could be traumatic. For these and other reasons their attitude and perception towards HIV and AIDS programmes could be negative. For example, Macintyre, Brown and Sosler (2001) reported that feelings of fatalism and depression were reported by people who believed that

there was nothing they could do about AIDS, and this fatalism may actually prevent any form of behavior change or taking care of oneself. In another study among sex workers in KwaZulu Natal, South Africa, Morar and Ramjee (2000) found that the sex workers believed that knowledge of positive results would cause mental anguish, that it would threaten their relationship with steady partners and that they would lose their clients and income.

Other reasons may include mistrust of health care professionals, inability to handle the psychological turmoil of an HIV positive test result, fear of discrimination and rejection by relatives, friends and the community at large. It is clear from the above information that many people would find HIV Voluntary Counselling and Testing to be uncomfortable and stressful and would, therefore, not readily submit themselves to it. In Ghana for example, notwithstanding the mass education on HIV and AIDS, people still appear to be uncomfortable to know their HIV status. Preliminary interviews with health staff at the antenatal clinic at the Central Regional Hospital at Cape Coast indicated that patronage of the facility was low and that those who go for VCT were mostly referral cases.

In a situation like this, it would be interesting to investigate expectant mothers' attitude and perceptions towards HIV and AIDS VCT. It would also be necessary to examine the psychosocial barriers that possibly account for the low uptake of VCT at the antenatal clinic. These investigations are very essential for the successful implementation of the HIV and AIDS VCT.

Statement of the Problem

According to the Ministry of Health (1998) HIV and AIDS infections constitute a growing problem in Ghana with a higher prevalence for women than men. In December 2003, there were 76,005 cumulated reported AIDS cases. The bulk of reported AIDS cases in 2003 were between the ages of 20 and 49 years with the 30-49 years age group accounting for 19% of the total number of cases. In 2003, an estimated 59.4% of reported AIDS cases were females. The level for reported AIDS cases is estimated at 30% and females constitute about 51% of the general population of Ghana (HIV SENTINEL SURVEY, 2004).

In the present circumstance of this scourge of HIV and AIDS, Voluntary Counselling and Testing is critical. HIV and AIDS Voluntary Counselling and Testing programmes are regarded as an important strategy in the management of the HIV and AIDS pandemic worldwide. Often, however, such programmes have experienced various problems and barriers, which limited their successful implementation. These barriers may relate to problems with facilities and services or to psycho-social obstacles that negatively impact on people's willingness to participate in HIV and AIDS Voluntary Counselling and Testing programmes (Van Dyk & Van Dyk, 2003). Eversley and Catania (1995) 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 nobody else could have access to their results. Gaillard et al (2000) found that 15% of the HIV-positive women in their study felt that it would have been better not to have known their status, because they were depressed as a result of this knowledge, or because there is no cure for HIV infection, and hence nothing they could do about

it. A study by Pool, Nyanzi and Whitworth (2001) on attitudes toward HIV and AIDS Voluntary Counselling and Testing among pregnant women in rural south west Uganda, found that although the women were prepared to be tested, there was a widespread fear that if they were HIV-positive, maternity staff might refuse to assist them when they delivered their babies. There were also widespread rumours of medical staff who intentionally killed HIV-positive patients to stem the spread of infection (Pool, Nyanzi and Whitworth, 2001).

In Ghana, the disclosure by Addo (2005), that only 7% of the total Ghanaian population has opted for HIV and AIDS Voluntary Counselling and Testing to know their HIV and AIDS status is baffling. This revelation raises too many questions for further investigation especially where Ghana Health Service has ninety VCT service centres in fifty four districts throughout the country.

In the Central Region of Ghana 96.5% of women had never tested for their HIV status. Surprisingly only 2.5% of the women in the region had tested for HIV and out of that only 1.1% went for their results (Ghana Demographic Health Survey (GDHS), 2003). According to G.D.H.S (2003) comparing women in Central Region with those in the other regions in Ghana who had never tested for HIV, women in the Central Region had the highest rate of not testing for HIV. What was even worrying was the fact that 83.9% of these women had obtained secondary school education and beyond.

It is clear from the above that patronage of women in VCT services in the Central Region of Ghana is low. The probability that pregnant women were among those who never availed themselves for HIV test cannot be underestimated. It is for this reason that the study focuses on examining the

attitudes, perceptions and psycho-social barriers to HIV and AIDS Voluntary Counselling and Testing programmes of expectant mothers in the Cape Coast Metropolis.

Objectives of the Study

The main objective of the study was to examine the attitude, perception and psycho-social barriers to HIV and AIDS VCT of expectant mothers.

Specifically, it investigated:

1. expectant mothers knowledge about HIV and AIDS Voluntary Counselling and Testing.
2. psychological and social barriers that prevent expectant mothers from HIV and AIDS VCT.
3. attitudes of expectant mothers toward HIV and AIDS Voluntary Counselling and Testing.
4. perceptions of expectant mothers towards HIV and AIDS Voluntary Counselling and Testing
5. how expectant mothers would encourage other pregnant women to go for Voluntary Counselling and Testing programmes; and
6. whether marital status and the level of education influence the attitude of expectant mothers towards HIV and AIDS Voluntary Counselling and Testing.

Research Questions

The following research questions were formulated to guide the study:

1. What knowledge do expectant mothers have about HIV and AIDS Voluntary Counselling and Testing?

2. What are the psychological and social barriers to HIV and AIDS VCT?
3. What is the attitude of expectant mothers towards HIV and AIDS Voluntary Counselling and Testing?
4. What is the perception of expectant mothers towards HIV and AIDS Voluntary Counselling and Testing?
5. How would expectant mothers encourage other pregnant mothers to go for HIV and AIDS Voluntary Counselling and Testing?

Hypotheses

From the research questions, the following hypotheses were tested:

- 1 H₀: There is no significant difference between married and unmarried expectant mother's attitude towards HIV and AIDS Voluntary Counselling and Testing.
- 2 H₀: There is no significant difference between expectant mothers' level of education and attitude towards HIV and AIDS Voluntary Counselling and Testing.

Relevance of the Study

The research study will unearth some of the psychological and social fears expectant mothers experience when they visit antenatal clinics for HIV and AIDS VCT. It will provide valuable feedback to health service providers in understanding and explaining the sort of perception and attitude expectant mothers develop about HIV and AIDS VCT. This information will, therefore, encourage health service providers to evaluate the programmes and improve the services they provide to the general public. It will also be a good opportunity for

them to address the erroneous impressions their clients have about them by intensifying the educational programmes so that more people would be encouraged to patronize the VCT centres.

The study will also provide guidance and counselling practitioners and social workers with the variety of ideas people have about HIV and AIDS Voluntary Counselling and Testing. This would help them to design educational strategies to break the barriers that discourage patronage among the people. Psychologists and counsellors who are also involved in the campaign against HIV and AIDS would be challenged to intensify their study to ascertain whether HIV and AIDS Voluntary Counselling and Testing programmes promote behavioural change. The psychological and social barriers that inhibit participation of people in HIV and AIDS Voluntary Counselling and Testing programmes would also give counsellors the opportunity to carefully identify and study all practices that discourage patronage. The objective appraisal of these practices would, therefore, help facilitate positive changes in behaviours and attitudes of all Ghanaians, especially expectant mothers towards HIV and AIDS Voluntary Counselling and Testing programmes. Finally, it will form part of the existing literature as well as raise other related issues for further research.

Delimitation of the Study

The study was delimited to the Central Regional Hospital in Cape Coast, where HIV and AIDS Voluntary Counselling and Testing was provided. Expectant mothers from Cape Coast who attended antenatal clinic at the hospital

were the subjects for study. Only psychological and social barriers to HIV and AIDS VCT were the concern for investigation.

Limitations of the Study

Time constraints and meager financial support could not allow for extensive study. For this reason, proximity and accessibility determined the area for the study. The same constraints also restricted the study to only expectant mothers in the Cape Coast metropolis who visited the ante-natal clinic at the regional hospital. Finally the sample size was not large enough to generalize the results of the study.

Operational Definition of Terms

The following concepts were operationally defined as follows:

Attitude: It involves how individuals behave, feel and think about a situation.

Voluntary Counselling and Testing: The process by which an individual undergoes counselling enabling him/her to make an informed Choice about being tested.

Counselling: A process of helping an individual to become aware of him or herself and the environment so as to make independent decisions.

Human Immunodeficiency Virus: It is the virus that causes the disease AIDS (Acquired Immune Deficiency Syndrome). It is the disease that suppresses the immune system of the body.

Psycho-social barriers: Anything/ event that poses a limitation to mental processes and social life

Antenatal clinic: health facility where pregnant women receive medical attention

prior to delivery.

The Organization of the Thesis

In chapter 1, the background to the study, statement of the problem, and the objectives of the study are presented. Also in the same chapter, are the research questions and hypotheses as well as the delimitation and limitations of the study. In chapter 2, the literature review focuses on the theoretical background and empirical studies relevant to the study. Chapter 3 focuses on the research methodology. Chapter 4 covers the bio-data of expectant mothers and analyses and discussion of results. The final chapter provides a summary of the results of the study and draws relevant conclusions. Recommendations based on the research findings and suggestions for future research are put forward.

CHAPTER TWO

REVIEW OF LITERATURE

Introduction

This chapter focuses on a review of theoretical and empirical literature. The theoretical review highlights on some relevant theories that will help to explain human behaviour and attitude formation. The empirical review on the other hand, provides studies on attitudes and some psycho-social barriers to HIV and AIDS VCT.

Theoretical Review

Various theories have been put forward to explain human behaviour and attitude formation. Those that are relevant to the study and which are reviewed in this chapter include the following:

- i) Social Learning Theory
- ii) Classical Conditioning Theory;
- iii) Instrumental Conditioning Theory;
- iv) Self- Perception Theory
- v) Cognitivists and learning

Social Learning Theory

Social learning theory focuses exclusively on how one's present environment can shape attitudes. The theory proposes that social behaviour is

primarily learned by observing and imitating the actions of others, and secondly by being directly rewarded or punished for our actions. (Bandura, 1977). Through social learning, children and adults acquire a wide range of strategies, outlooks and rules about behaviour that they imitate, avoid or modify to their advantage. Since no particular reinforcement is needed to accumulate such information, they do so naturally in the course of cognitive processing what those around them do. Through social learning, they form more abstract representations or schemas that can later be used to help them generate similar responses in many different settings. In forming schemas, they capture the essence of the behaviour and events they observe, and these schemas then serve to guide their own thoughts, feelings and actions (Bandura 1986).

It could be inferred from the social learning theorists' point of view that, people develop their attitudes from the environment in which they find themselves. It could be in the home, school, hospital, and playground or among friends and relatives. Through mere observation of people's actions in the environment, one can then form his or her own attitude. For example, if an expectant mother attends antenatal clinic and observes that the HIV and AIDS VCT health care providers are warm in their relationship with clients, respectful and trustworthy; she would be motivated to go for HIV and AIDS VCT regardless of the outcome of the test results. If on the other hand, her observations are on the contrary she would avoid attending the clinic.

Again, an expectant mother who finds herself in a company of friends or relatives whose attitudes toward HIV and AIDS VCT are negative will be influenced with that perception and vice versa. So it is the kind of environment in

which the expectant mother finds herself that will make her form schemas which will then serve as a guide to her own thoughts, feelings and actions about HIV and AIDS VCT.

Classical Conditioning Theory

Pavlov's (1927) classical conditioning theory contends that when two stimuli are associated together as a consequence of their being paired together, the learner gives the same response to the new stimulus as he or she did to the old. Pavlov's (1927) classical conditioning of attitudes can occur when a previously neutral attitude object (the conditioned stimulus) comes to evoke an attitude response (the conditioned response) simply by being paired with some other object (the unconditioned stimulus) that naturally evokes the attitude response (the unconditioned response). Although the initial conditioning experiments were carried out with animals, classical conditioning principles were soon found to explain many aspects of everyday human behaviour. Pavlov came to the conclusion that all human learning was due to conditioning.

Attending hospitals for antenatal care or routine check up is a neutral stimulus to expectant mothers. They have no fear of going to the hospital. However, if friends, relatives and significant others in the society begin to associate or pair hospital attendance continuously with negative feelings, it will eventually elicit a conditioned response from the expectant mothers. For example, a continuous pairing of hospital attendance with an HIV and AIDS test will not attract expectant mothers to attend the hospital for their routine check up. The expectant mothers will be conditioned to classify the hospital as a place for HIV

and AIDS testing, and for that matter any expectant mother who attends the hospital will be suspected of having HIV and AIDS. This ideology of HIV and AIDS VCT invariably shapes the expectant mothers attitude and perception and consequently impact on their hospital attendance for routine check up.

Psychologists, consider that attitudes can be acquired in much the same way: a person links an object, group or situation with a specific characteristic so that the object, group or situation is seen to have those properties and an attitude is formed. For example, expectant mothers may develop negative attitudes toward HIV and AIDS VCT if they are always paired with their hospital attendance for routine check up.

Instrumental Conditioning Theory

Instrumental conditioning, a form of learning extensively studied by Thorndike (1932) and Skinner (1938), posits that behaviour becomes more or less probable depending on its consequences. Like other Stimulus-Response theorists, they believed that learning consisted in the establishment of an association between a stimulus and a response. For them, the animal's behaviour is controlled by the consequences of its actions. Out of the experiment came the idea of reinforcement. They later concluded that the concept of reinforcement can be extended to human learning. Non-materials, such as approval, smiles, the feeling of belonging and importance, recognition, achievement are all appropriate reinforcers of human behaviour.

Whether a particular behaviour will recur or not will depend on the consequences of a response. Rewards will increase the probability that the behaviour will be repeated, whereas punishment reduces that probability. This

presupposes that if health care professionals warmly accept and welcome expectant mothers, encourage them to seek for HIV and AIDS VCT, respect and value them as well as assuring them of the confidentiality of their test results, most of the expectant mothers will develop positive attitudes towards HIV and AIDS VCT and thereby have the interest and the urge to go for the test. They can even publicize the benefits of HIV and AIDS VCT to other members within the community, thereby promoting the service.

On the other hand, the expectant mothers will develop negative attitudes toward HIV and AIDS VCT, if they realize that health care providers are not to be trusted because they breach confidentiality and regard them as worthless beings. This can increase people's reluctance to seek for HIV and AIDS VCT. The underlying implication of this postulate is that, for a desirable behaviour to be increased or made more frequent, rewards and reinforcements are necessary. To decrease the occurrence of the behaviour is to withdraw the rewards.

Self-Perception Theory

Bem's Self-perception theory (1965, 1972) contends that, people often come to know their own attitudes and dispositions by inferring them from observations of past behaviour. When others begin to attribute certain dispositional qualities to us, self-perception theory contends that we look to our behaviour for confirmation of the validity of this labeling. According to the theory, instead of attitudes causing behaviour, it is behaviour that causes attitudes. Self-perception theory contends that when we form attitudes, we function like an

observer, watching our behaviour and then attributing it to either an external (the situation) or internal (attitude) source.

Inferring from Bem's Self-perception theory, suppose that a friend describes you as pessimist. Even though you may never have thought about yourself in this way, you may now recall incidents from your past when you exhibited the particular attribute. If for example, before you got pregnant you were always thinking negative about yourself it is likely that such behaviour would reflect on your attitude now that you attend antenatal clinic and would be required to go through Voluntary Counselling and Testing. This analysis of past behaviour may lead you to conclude that your friend is correct- you are a pessimist.

Cognitivists and Learning

Cognitive psychologists recognize the human being as active, alert, intelligent and competent. For them, human beings do not merely receive information but also process them. They do not merely reflect relationship, they can themselves create them. For them, when human beings take in stimuli, they do not merely respond to them, but give them structure and meaning. In other words, cognitivism tries to explain human behaviour in terms of neutral processing of information. That is, it concerns thought, perception and decision making, which are in the form of computer-like views of human behaviour. The cognitivists find it hard to believe that between a person and his or her understanding of a problem there is merely a reward of praise or candy as perceived by the behaviourist. They feel that when human beings solve problems,

they are motivated by their own basic competence and not by a mere stimulus-response reaction.

The cognitivists would therefore find it difficult to be convinced that, providing information on HIV and AIDS VCT to expectant mothers would discourage them to go for the test. They may maintain that, these expectant mothers are not passive and mechanical beings to behave spontaneously. They have the ability to reason and make a decision. As intelligent beings, therefore, HIV and AIDS VCT would be carefully examined looking perhaps for its merits and demerits.

Piaget (1952) a cognitivist postulates that mental development is not predetermined, it is not a product of biological maturation, but is rather a result of continuous interaction between the individual and his environment through assimilation and accommodation. According to Piaget, the human organism is not a passive recipient of information but rather an active organism engaged in the task of acquiring knowledge, constantly exploring the environment in her attempt to understand it. Reasoning from the above, the expectant mothers in interacting with their environment would be subjected to a lot of HIV and AIDS VCT influence which could affect their behaviours and influence their attitudes. Notwithstanding, they are capable of taken a decision after a careful analyses.

As a further elaboration, another cognitivist Brunner (1973) proposed that, perception is not only dependent on the stimulus attributes of what is being perceived, but is also determined by the perceiving individual's experience, intention and social needs. This implies that, expectant mothers would not go in for HIV and AIDS VCT just because people are encouraging them to go for the

testing because of its inherent advantages or because of the stigmas and discriminations one was likely to suffer when diagnosed HIV positive. Rather, they would do so based on their own needs and convictions.

Again, he contended that, the perceiver is not a passive and indifferent organism but one who actively selects information and forms perceptual hypothesis in order to reduce uncertainty and decide what precisely is happening. It would be reasonable to suggest that, from Brunner's point of view, expectant mothers' perception about HIV and AIDS VCT would not be wholesale but involve rationalization.

Considering the theories discussed so far, the social learning and instrumental conditioning theories underpin the study.

Empirical Review

In this part of the review, attitudes and some psycho-social barriers towards HIV and AIDS Voluntary Counselling and Testing have been discussed.

The discussion was based on the following outline:

1. HIV and AIDS VCT and behaviour change;
2. Attitude and knowledge towards HIV and AIDS VCT;
3. Uptake of VCT service;
4. Psycho-social barriers to HIV and AIDS VCT;
5. Sharing of HIV and AIDS test result with family and friends; and
6. Improving HIV and AIDS VCT testing

HIV and AIDS VCT and Behaviour Change

If VCT programmes were to be successful, they should also be instrumental in preventing HIV infections by facilitating behavioural change. Some VCT efficacy studies conducted in developing countries have demonstrated that VCT is successful in helping reduce risk behaviour. (e.g.UNAIDS, 2002; VCT Efficacy Study Group, 2000) These studies showed a decrease in unprotected sexual intercourse with both steady and casual partners, as well as an increase in consistent condom usage following a VCT intervention programme. It seems, however that it was specifically HIV-positive participants and HIV serodiscordant couples who changed their behaviour after VCT. Voluntary Counselling and Testing did not lead to any behaviour change in HIV-negative participants, or in participants who received only health counselling without testing (Weinhardt, Carey, Johnson & Bickham, 1999). Weinhardt et al (1999) concluded that HIV counselling and testing appears to provide an effective means of secondary prevention for HIV-positive individuals, but that it is not an effective primary prevention strategy for uninfected participants.

The importance of the development of post-test support services for the reinforcement of long-term behaviour change is emphasized by many researchers in Africa. They found that clients seldom benefit from once-off VCT services that are not accompanied by on-going and follow-up counselling (Campbell et al., 1997, Kipp, Kabagambe and Konde-Lule, 2001). According to these researchers, it is unrealistic and inconsistent with the theories of behaviour change to expect sustained behaviour change after a single exposure to VCT. According to Van Dyk and Van Dyk (2003) negative attitudes and erroneous perceptions about the

purpose of VCT programmes (by both programme managers and participants) can also be major stumbling blocks in the way of the successful implementation of VCT programmes. Van Dyk et al (2003) argue that these attitude and perceptions may prevent people from participating in such programmes, either for the first time or on a continuous basis. It is only when ‘incentives’ for knowing ones HIV status are available that many people would be willing to be tested.

To know one’s HIV status without any follow-up support services or treatment, can be detrimental to a person’s mental and physical well-being. Feelings of fatalism and depression were reported by clients who believed that there is nothing they could do about AIDS, and this fatalism may actually prevent any form of behaviour change or taking care of oneself (Macintyre, Brown and Sosler, 2001). Gaillard et al (2000) found that 15% of the HIV- positive women in their study felt that it would have been better not to have known their status, because they were depressed as a result of this knowledge, or because there is no cure for HIV infection, and hence nothing they could do about it.

Similar results were found in a study where the majority of sex workers in KwaZulu Natal, South Africa- who were willing to be tested monthly for HIV - did not want a positive test result disclosed to them. They believed that the knowledge of a positive result would cause mental anguish, that it would threaten their relationship with steady partners and that they would lose their clients and income (Morar and Ramjee, 2000). Gillard et al (2000) found that the women in their study, who benefited from knowing their HIV-positive status, had the incentives and means to take care of themselves.

In a study by VanDyk and VanDyk (2003) of the 1422 participants, 77.3% said they would change their sexual behaviour if they tested HIV-positive, while 13.4% said they would definitely not change their sexual behaviour if they tested HIV-positive. A further 9.3% of the participants said that they were not sure if they would change their sexual behaviour. VanDyk et al (2003) found out that participants with higher level of education were more likely than those with lower educational qualifications to indicate that they would change their sexual behaviour if they tested HIV-positive. Fewer than half of the participants (46.5%) said that they would change their sexual behaviour if they tested HIV-negative; while the majority (53.5%) said that they would not change their sexual behaviour because “it is obviously not necessary”. According to them, people who knew somebody with HIV and AIDS were significantly more prepared to change their own sexual behaviour (even if they tested HIV-negative) than people who did not know somebody with HIV and AIDS.

Campbell et al. (1997), MacGowan, Higgins and Jorgensen (1997) and Beardsell and Coyle (1996) have assessed the effectiveness of VCT in reducing risk behaviours and occasionally rates of HIV seroconversion among VCT recipients (De Vincenzi, 1994; Feldbulm, 1991). Studies report mixed results in terms of reduced risk behaviours and HIV infection rates and VCT seems to have little effect on pregnancy decisions by HIV- infected women(and importantly, their partners), but substantial risk-reduction and lower rates of seroconversion were often reported for HIV serodiscordant couples, particularly in couples where both partners know their serostatus. Behaviour changes among discordant couples were not uniform, however, pointing to gender-associated power

differences within couple relationships. Condom use in discordant couples in sub-Saharan Africa after VCT, for example, was more frequent and consistent in couples where men were HIV seronegative (Kamenga et al., 1991; Maposhere et al., 1996).

Randomized controlled trial studies of counselling and testing in Kenya, Tanzania and Trinidad (Coates et al., 1998; Gregorich, Kamenga, Sangiwa, Furlonge, and Balmer 1998); reported lower incidence of STDs and longer periods of HIV/STD risk reduction among persons receiving VCT than among persons who received HIV and AIDS prevention information using health education formats.

In a study from Kinshasa and the Democratic Republic of Congo, intensive couple counselling following testing was shown to be effective in changing sexual behaviour in serodiscordant couples. The counselling resulted in a low rate of HIV seroconversion – 3.1% per 100 people – years of observation in Congolese married couples with discordant HIV status who attended VCT (Kamenga et al, 1991). Hira (2000) reports in a study in Lusaka, Zambia that 46 out of 52 serodiscordant couples followed for 1 year continued to have unprotected sex, and 11 of these seroconverted to HIV.

Attitude and knowledge towards HIV and AIDS VCT

Knowledge on HIV and AIDS VCT was found to be higher among younger age groups as compared to the older ones (Tefera et al., 2004). This might be due to the better access to information of the younger age groups through schools and different clubs. A chi-square test for trend of knowledge by

age group showed a significant difference. The younger age groups have good knowledge of HIV and AIDS VCT as compared to other age groups (Tefera et al., 2004). Furthermore according to Tefera et al (2004) ethnicity and religion were also significantly associated with knowledge level of HIV and AIDS VCT.

According to Tefera et al (2004) people who are less educated (illiterate, read and write) and those who have attended school to grade 12 and above have more unfavorable attitude towards preventive methods of HIV and AIDS as compared to those who have attended from grade 1-12

Studies in Ethiopia on different population groups by Tarantola and Mann (1994) indicated that attitude towards collaboration and participation on control programme including voluntary HIV test was greater than 74%.

Uptake of VCT Service

Uptake of VCT in communities is dependent on societal factors as well as factors associated with delivery of the service. For example, in Lusaka when students were asked if they wished to be tested for HIV, there was a very high rate of interest. When the service was provided initially, uptake was very low. However, with time there has been increasing demand for VCT in Lusaka (Baggaley et al., 1997). Another study from Zambia examined the readiness to utilize VCT services offered to 4,812 participants from rural and urban sites. Although 37% initially expressed willingness to use VCT services only 3.6% actually came for VCT (Rosensvard et al., 1998).

Experience in antenatal clinics shows that relatively few women formally opt out of HIV testing rather, they may simply fail to return for HIV test results

(Holmes, 2004). The reasons for this may be wide ranging and related to socio-economic factors, such as lack of transport to return to the testing site; they may also be related to well-considered decisions to not receive test results.

Uptake of VCT at antenatal clinics varies widely but current research does not clearly articulate why this is the case. In Africa, the percentages of women accepting VCT and obtaining test results have ranged from 20% at Zambia and Ugandan sites to 95% in a South African PPT programme (Hilderbrand, 2003). In a Thai study of 24465 women, 99% consented to be tested but 13% of 1509 women who tested positive failed to return for their results or return to the clinic after receiving results (Koetsawang et al, 2000). In a Kenyan study, 69% of 399 pregnant women agreed to an HIV test and 56% returned for their results; those who failed to come back were more likely to be HIV- positive and to have had a previous pregnancy (Kiarie et al; 2000).

A preliminary result from a large PMTCT programme in Botswana showed a relatively low uptake during the first eight months of operation (Mazhani et al; 2000). According to them, this low uptake was due to fear of a positive results, lack of facilities where partners can receive counselling and testing, worry about partner's/husbands reaction and lack of effective treatment available for infected mothers themselves. In Zimbabwe, one hundred an eighty-six women attending antenatal clinic in Chitungwisa were offered VCT as part of their antenatal care. Although most women in this study endorsed the multiple benefits of VCT, uptake was low, with only 23% of women consenting to VCT (UNAIDS Best Practice collection, 2000). In contrast, a study in Thailand that

involved 24,465 women attending 27 hospital antenatal clinics showed that 99% of women accepted VCT (UNAIDS Best Practice collection, 2000).

Voluntary counselling and testing for HIV has been proven effective as a preventive and control strategy, and it has been shown to result to behavioural change and in improving coping strategies of those individuals who tested positive for HIV (Kowakzyk et al, 2002). In one study conducted in Zambia where exit interviews were carried out with one hundred and twelve pregnant women attending antenatal clinic, 94.8% felt the need for an HIV test so that they can plan their lives and know how to maintain health whatever the test result might be (Makuka and Siyandi, 1999). Several factors associated with the acceptance of HIV testing have been documented in other studies; these included a woman's perceived risk of infection and routine presentation for counselling and testing for HIV, provider support, perceived benefits and knowledge of mother to child transmission of HIV (Kowakzyk et al, 2002). In developing countries, the lack of ARVs and medical and social support service available for people with HIV was reported as one of the reasons for the poor uptake of VCT (UNAIDS Best Practice collection, 2000). It is also harder to opt for an HIV test if you know that the population prevalence is high, as you have a large likelihood of getting a positive HIV result. Often during counselling women give reasons for refusal for HIV testing. They expressed a need to consult their husbands/ partners before taking that test. In a study conducted in Botswana, men (often regarded as decision makers) and families in general not to agree to HIV testing (Baggeley, 2000). Their advice against participation in the programme was very often cited as the reason for pregnant women not to agree to HIV testing (Baggeley, 2000).

According to Baggaley et al. (1997), a study from Lusaka, Zambia, showed that while many people expressed worries about sharing HIV test results, with time, the majority- both men and women- were able to tell someone about their status. There was no significant difference between those testing seropositive or seronegative. Few said that they had experienced difficulties to tell their sexual partners. In Rwanda, a prospective study of seropositive women found that after testing, 75% said that they did not expect a supportive response from their partners when they told them about their status. However, when they were re-interviewed three years later, acceptance, understanding and sympathy were the most common reactions of their partner after disclosure (Keogh et al, 1994).

In Zimbabwe, informing marital partners was found to be a major problem for most people with HIV (Meursing et al., 1995). The main reasons for non-disclosure were relatively good health and emotional status, denial of diagnosis, fear of rejection and limited knowledge of and belief in strategies to “live positively with HIV”. A study from London also revealed differing patterns of disclosure. Although most people were able to share their HIV status with someone, it was often difficult for seropositive people to share their HIV status with their sexual partner, especially if the partner was a casual or non-primary sexual partner (Miller et al., 1998). In a small study from Western Cape in South Africa, less than 50% of seropositive women were able to disclose their HIV status to anyone and only a minority of these discussed it with their partner (Sigxaxhe, 2004).

Information from 13 study sites offering VCT and MTCT interventions – from West (Abidjan, Bobo-Dioulasso), East (Addis Ababa, Nairobi, Mombassa,

Dar Es Salaam) and Southern Africa (Blantyre, Lusaka, Harare, Soweto, Durban) showed low numbers of men agreeing to testing in most settings (Cartoux et al, 1996).

In a study from Nairobi, Kenya, women were offered VCT when they attended for antenatal care. Women were advised to tell their sexual partner their HIV status and to bring their partners for further counselling and testing, if desired (Temmerman, 1991). However, of the 324 women who were found to be seropositive only 66 (22.2% communicated their test result to their partners and only 21 partners subsequently tested. Because of the adverse outcome of partner disclosure that during the study, the policy of partner notification was changed and women were counselled to make their own choices about whether or not to involve their partner. Subsequently, only 109 out of 311(35%) of women with a seronegative result ever returned for their test result and only 9(3%) partners came for VCT. In Rwanda, of the 1223 women screened for HIV at an antenatal clinic 70% of the women who went for post-test counselling said that they wished their partners to be tested for HIV. However, despite the encouragement of the counselling staff and the available infrastructure only 8% of the partners were tested (Ladner et al., 1996). Results from a small qualitative study from the United States showed that, following antenatal VCT, although all women and disclosed their HIV status to their partners, only 56% of seropositive and 44% of seronegative women knew their partner's HIV status (Lester et al., 1995).

Psycho-social Barriers to HIV and AIDS VCT

Negative outcomes following VCT

Balanced against the advantages following VCT there are potential negative consequences of VCT for the individual and his or her family (Colebunders et al., 1993). Some people with HIV report discrimination from health workers from VCT. A study from United States showed that when women from San Francisco were questioned from antenatal VCT they said that they had experienced higher levels of health care discrimination, personal isolation and negative psychological sequelae than their seronegative counterparts (Lester, et al., 1995). Finding out that one is seropositive, as with other serious medical diagnosis, will almost inevitably cause shock and distress and have a major effect on the individual and his or her family (Dautzenberg et al, 1992; Ankrah, 1993; Lipmann et al, 1993).

Serious sequelae for women following VCT has been reported in a study from Nairobi, Kenya (Termmerman, 1991), seropositive women who received VCT in an antenatal setting reported high levels of negative outcomes. Of the 324 women who were found to be seropositive only 66(27.2%) communicated their test results to their partners and only partners subsequently tested. Eleven seropositive women were chased away from their house or replaced by another wife, seven were beaten up and one committed suicide. Studies from Rwanda have also noted the burden of physical and emotional violence, as well as the financial difficulties that occur to women who test seropositive (Keogh et al., 1994, and Straten et al., 1995).

In a study from the Republic of Tanzania, 340 female clients were followed up for 3 months following VCT to examine the relationship between HIV serostatus, domestic violence and disclosure (Maman, 1999, Maman et al., 2000). Both those who tested seropositive and seronegative experienced high levels of physical violence. In a study, 54% of seropositive women and 32.3% of seronegative women said that they had had at least one physically abusive partner in their lifetime, before attending VCT. Seropositive women were significantly more likely than seronegative women to report a physically violent episode with their current partner in the last three months (31% versus 16.2%).

Kamenga et al (1991) reports that a study of serodiscordant couples from Kinshasa show that at the time of testing 18 couples experienced acute psychological distress, such as threatened suicide, a husband's family chasing the woman from the house and accusations of infidelity. Gregorich et al (1998) reported high levels of marital break-up following VCT. There are many anecdotes of discrimination following VCT, particularly for those testing seropositive. Many countries in sub-Saharan Africa insist on HIV testing candidates before they enter religious orders excluding those who test seropositive from training as priests or nuns (Baggaley, 1994). Some people with HIV report discrimination from health workers following VCT.

In Rwanda, a prospective study of seropositive women found that although the majority reported good morale, chronic difficulties with sleep, performing daily routine and feelings of depression were reported by a third of the women (Keogh et al., 1994). In Zambia, although many people who tested seropositive expressed sadness, anger or anxiety following testing. This was

relatively short lived and no cases of attempted suicide occurred (Baggaley et al., 1998). Some people who had suspected that they were positive said that they felt at ease on receiving their result, since they were now able to understand symptoms and make plans for treatment or for their dependents. People who tested seronegative expressed relief, but some expressed guilt or sadness when partners or family members had tested positive.

In the multi-center trial by Sangiwa (2000), 81 people were interviewed in depth about their emotional feelings following VCT. Some participants reported persistent feelings of sadness, desperation and a sense of loss as they felt they may have to give up having children and abstain from sex out of concern about infecting others.

According to Coates et al (1987) a study of homosexual men showed that those who tested seropositive following VCT were more likely to suffer adverse consequences such as stress, depression and break-up of their primary relationship than those who tested seronegative or those who refused testing.

Maqura et al. (1990) reports that people testing seropositive in Long Island, the United States displayed a wide range of emotional reactions to learning their results. Cleary (1993) in a study of seropositive blood donors showed that depressive symptoms scores for both men and women were substantially higher than scores typically found in representative population samples. More than a quarter of men and a third of women reported seeking psychological or psychiatric service in the first few weeks following notification of their positive results. According to Gregorich (1998) seropositives were more likely to be estranged by peers, discriminated by employees, and neglected by family. In the

same study seropositive women who enrolled as a couple reported higher rates of physical abuse and the break-up of marriage.

A study of homosexual men showed that those who tested seropositive following VCT were more likely to suffer adverse consequences such as stress, depression and break-up of their primary relationship than those who tested seronegative or those who refuse testing (Coates et al., 1987). Another study compared men who have sex with men (MSM) who were aware of their HIV status with men who had been tested but declined to receive their test results (Doll, 1990). Those who chose to learn their status were no more likely to support depression or anxiety following testing than those who chose not to know their status.

Stigma and Discrimination

Although, HIV and AIDS VCT are becoming increasingly available in developing and middle-income countries, there is still great reluctance for many people to be tested. There are several possible contributing factors that must be addressed if VCT is to have an important role in HIV prevention and care. HIV and AIDS related stigma and discrimination ranked among the highest and pervasive barriers to effective utilization of voluntary counselling and testing services (UNAIDS, 2002). Stigma and discrimination target and harm those who are least able to enjoy their human rights. In fact stigma, discrimination and human right violation form a vicious circle, generating, reinforcing and perpetuating each other. Stigma and discrimination increases peoples vulnerability by isolating and depriving them of treatment, care and support

(Krabbendam, 1998). A sero-positive woman is often identified as the person who brought HIV infection into the family, despite the fact that in the majority of cases, women have been infected by their partners or husbands (WHO, 1999). To avoid being identified as HIV positive, women may either refuse HIV test, delay antenatal booking or where the test is done they will decline to collect the results, thus limiting their access to antiretroviral treatment.

In a midterm evaluation review of the HIV and AIDS care pilot project in the Gambia, VCT in pregnancy accounted for less than a third of the HIV test and women were diagnosed late in pregnancy (Stecker and Ndure, 2003). A few of those mothers who received the anti-retroviral drug Nevirapine had opted for formula feeding, or practiced mixed feeding in order to avoid stigma and suspicion that they are HIV positive (Stecker and Ndure, 2003). In a similar study also conducted in the Gambia, between 50% to 60% of participants feared they would be isolated if some one knew that they were HIV positive and 40% men and 46% women respondents feared divorce in these circumstances (Hands on Care, 2001).

Testing for HIV antibodies is an important component of prevention and intervention programmes to curb the spread of HIV infection. Unfortunately, stigmatizing attitudes towards people living with AIDS (PLWAs) may reduce people's willingness to have themselves tested for HIV and socially isolate those with known HIV infections. These attitudes may seriously affect the coping potential and general well-being of people living with HIV and AIDS. HIV is heavily stigmatized in many countries and people with HIV may experience social rejection and discrimination (Karim , 1995). There is indeed much evidence

that PLWAs tend to be stigmatized, and that HIV-stigma is a multi-faceted phenomenon. Stigmatizing beliefs about AIDS and their associated fears of discrimination can influence decisions to seek HIV testing and treatment services. For example, in a study conducted in the United States, Stall and Coates (1996) reported that two out of three men who have sex with men who were unaware of their HIV status indicated that, AIDS related stigmas were important factors in their testing decisions. Herek, Capitanio and Widaman (2003) found that 38% of US national sample of adults stated that they would be very concerned about stigma if they tested HIV-positive and 44% of the people who expressed this concern indicated that stigma influences their testing decision. In South Africa, AIDS related stigmas are also socially and culturally pervasive. In a South African national survey conducted by Fisher et al, (1992), 26% of respondents would not be willing to share a meal with a person living with AIDS and 6% would not talk to a person they knew to have AIDS. Stigmas may therefore pose considerable barriers to seeking VCT in South Africa.

Confidentiality

It is often found that clients in principle are not against HIV and AIDS VCT, but that they have serious doubts and anxieties about the confidentiality of HIV test results. Fear of breach of confidentiality was a key barrier preventing clients from participating in HIV and AIDS VCT services in Kenya. In a study conducted by Philips, Coates, Eversley and Catania (1995) on people who were not tested before and who did not plan to be tested revealed 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. It is also evident that lack of trust in the public health care system is a huge stumbling block in the provision of comprehensive HIV and AIDS VCT in South Africa. Clients are also concerned about the possibility of prejudiced behaviour by health care personnel who are aware of their serostatus. A study by Pool et al (2001) on the attitudes toward HIV VCT among pregnant women in rural South West Uganda, found that although the women were prepared to be tested, there was a widespread fear that if they were HIV-positive, maternity staff might refuse to assist them when they delivered their babies. There were also widespread rumours of medical staff who intentionally killed HIV-positive patients just to stem the spread of infection.

Apart from clients' fear that health care personnel will breach confidentiality, they also fear disclosing their HIV-positive status to their sex partners. Disclosure to sex partners was especially a problem for women who are often socially and culturally disempowered to their sex partners. Gaillard et al (2000) found that 68% of women in stable relationships, who lived in a resource poor setting in Africa, did not inform their sex partners, mainly for fear of their reaction. Violence, the break up of marriages, being neglected or disowned by their families, the loss of security, shelter, food and relationships, and even murder have all been reported as real consequences when women disclose their HIV-positive to their sex partners.

The same trend was found among pregnant women in Africa. Kilewo and Massawe (2001) and Nebie and Meda (2001) found that only 16.7% and 18% of participants in their studies respectively, informed their partners of their HIV-

positive status. Since women are often blamed for bringing AIDS into the family, they tend to cope silently with this burden without protecting themselves or their sex partners from further infection, and without accessing health care and support services. The fear to disclose their HIV-positive status therefore prevents them from seeking VCT services.

To know one's HIV status without any follow-up support services or treatment, can be detrimental to a person's mental and physical well being. Feelings of fatalism and depression were reported by clients who believed that there is nothing they could do about AIDS, and this fatalism may actually prevent any form of behaviour change or taking care of oneself (Macintyre et al, 2001). Gaillard et al. (2000) found that 15% of the HIV-positive women in their study felt that it would have been better not to have known their HIV status, because they were depressed as a result of this knowledge or because there is no cure for HIV infection and hence nothing they could do about it.

Similar results were found in a study where the majority of sex workers in KwaZulu Natal, South Africa who were willing to be tested monthly for HIV did not want a positive test result disclosed to them. They believed that the knowledge of a positive test result would threaten their relationship with steady partners and that they would lose their clients and income (Morar et al, 2000). According to Baggaley et al. (1997) uptake of VCT in communities is dependent on societal factors as well as factors associated with delivery of the service.

In Kinshasa (DRC) counsellors noted that in clinical settings pre-test counselling was not often done. Consequently results were often not relayed to the client. Medical staffs themselves often had unhelpful attitudes to VCT and

were reluctant to give positive results to clients (Denolf et al., 2000). According to Mazhani et al. (2000) MTCT in Botswana showed a relatively low uptake of VCT during the first eight months. This was due to fear of seropositive result, lack of facilities where partners can receive counselling and testing, worry about partner's reactions and the lack of effective treatment available for infected women themselves. In developing countries the lack of ARVs and medical and social support services available for people with HIV is reported as a reason for the poor uptake of VCT (Baggaley, 1995).

In a qualitative exploratory study with key informants in India and Kenya, respondents noted that health-care providers do not always maintain confidentiality regarding pregnant women's positive HIV test results (de Bruyn et.al. 2002). In the Asia-Pacific Network of People Living with HIV and AIDS (APA+) study, 34% of the 753 respondents said their confidentiality had been breached, usually by a health-care worker. In India, HIV test results are sometimes not given to the pregnant woman but to her husband because it is assumed that the spouse will make the decision about whether or not to continue the pregnancy (Bharat, 2001). Maintaining confidentiality when testing is done during labour and delivery may be even more difficult. For example, an evaluation of PPT programmes in South Africa found that in 73% of the surveyed facilities, the physical layout of the labour ward made it difficult to guarantee confidentiality; nurses complained that even whispered conversations could be overheard (Besser, Dinat and Paruk, 2002). Reports from Jamaica have also indicated a lack of confidentiality in labour wards (Mullings et al., 2004).

In the same study, it was reported that, respondents' sex was the strongest predictor of whether they experienced discrimination subsequent to their diagnosis. Women consistently experienced significantly more discrimination than men. Women were twice more likely to be physically assaulted due to their HIV status than men.

In many developing countries antenatal care does not take place in privacy (WHO, 1999). However for VCT and MTCT interventions to execute correctly and effectively, privacy must be ensured. Discussion of the risk factors and sexual relationship is part of VCT for HIV infection, and key information essential to the process will not be elicited unless the woman can discuss these issues in private (WHO, 1999).

In many parts of Africa, a lack of trust in the public healthcare system is a huge stumbling block in the provision of comprehensive VCT (Arthur et al., 2000; Pool et al., 2001). In a study by Philips et al (1995) it was found that participants were only willing to be tested if absolutely no one else would have access to their test results. VanDyk (2001) reported in a study that, many counselors do not observe confidentiality because they consider it their 'moral duty' to disclose a client's HIV-positive status to the client's partner, and often to the other members of the client's community. Some of the nurses who took part in focus group discussions in an HIV and AIDS counselling programme in 2002, admitted that they have often taken up this 'moral policing role' in the past by notifying partners or family members of the HIV-positive status of their clients. Even though WHO and UNAIDS state that HIV testing must be voluntary and with fully informed consent, this does not always happen. Almost 40% of

pregnant women surveyed in a Canadian study said they had been tested for HIV without their prior knowledge (Weinberg, 2005). In Australia, HIV testing is not routine although some doctors test pregnant women without their knowledge or consent (Family Planning Association and AIDS Council of New South Wales, 1997). The lack of human resources in many public health settings, the availability of staff to do adequate pre-and post-test counselling is limited and this has led to increasing use of group educational sessions rather than pre-test counselling (Social and Scientific Systems Inc, 2004).

Lack of Partner Support

In some countries, considerable numbers of women hesitate to disclose their status to their partners for fear of being physically assaulted, rejected or abandoned (Mukasa et al., 2001). A study in Abidjan, Cote d'Ivoire, found that women's intent to disclose their HIV status to their partners decreased during various stages of PPT programme: 68% were willing to so when offered an HIV test, 38% when they returned for post test counseling, 33% when they returned for follow-up visits to prepare for receiving ART and 27% when they actually began receiving ART. Women's reluctance to disclose their status was related to fears of rejection, abandonment, divorce, and violence (Painter et al. 2002). In December, 2004, the Director General of the Uganda AIDS Commission stated to the press that only 5% of rural women have accepted voluntary HIV testing due to fear of negative reactions from their husbands (Matsiko, 2004). In Malawi, some hospitals that offer VCT to pregnant women have trouble recruiting women for

the PPT programmes reportedly because the women fear the negative reactions of their husbands (Sumbuleta, 2005).

Among 290 HIV-positive women with stable relationships who participated in a perinatal intervention study in Kenya, only 31% informed their partners of their HIV status after testing. The most common reason given by the women for not sharing the diagnosis was fear of the partner's reaction; 7% of the women who told their partners suffered negative reactions (abandonment or violence). According to Maman (2004) studies on women's disclosure of their HIV test results have indicated that although relatively small proportions reported negative outcomes such as blame, physical assault or abandonment, the absolute numbers of women experiencing such repercussions may be considerable as testing during pregnancy increases.

A 1999 survey of 245 women interviewed in Dar es Salaam, Tanzania, three months after they underwent VCT, found that (30%) of women who tested positive experienced more violence from their current partners than women who were HIV-negative. In addition, HIV-positive women younger than 30 years were 10 times more likely to report partner violence than HIV-negative younger women (Maman, Mbwanbo, and Hogan, 2002).

Stakeholders from associations of people living with HIV, in 2003 in Cambodia, India, Namibia and South Africa stated that women who experience violence or abandonment because of their positive HIV status faces enormous difficulties in finding alternative housing. They felt partner testing and family counselling could potentially reduce violence against women testing positive for HIV particularly during pregnancy (Lewis, 2003).

In South Africa, it has been found that women suffer great distress regarding decisions about infant feeding due to actual or feared stigma and discrimination. With AIDS-related discrimination directed more heavily towards women than men, it is not unlikely that a woman living with HIV will feel forced to make one of two undesirable choices: carry a burden of secrecy or face rejection from family members, either of which can result in a deterioration in her health and well-being (Paxton, 2002).

Partners affect VCT clients' ability to follow through on intentions and decisions made during VCT sessions. Effective protective action against HIV/STD infection within couple relationships requires communication, agreement, and above all, cooperation between couple members. The obstacles to carrying out intended protective actions can be particularly daunting for women in couple relationships. The responses that women encounter to their prevention efforts with male partners may vary from silence (indifferent to cool), to resistance and non-cooperation, to threats and physical violence (Chaime & Zimba, 1998)

Lack of Informed Consent

The WHO and UNAIDS state that HIV testing must be voluntary and with fully consent, yet this does not always happen. Almost 40% of pregnant women surveyed in a Canadian study said they had been tested for HIV without their prior knowledge (Weinberg, 2005). In Australia, HIV testing is not routine although some doctors test pregnant women without their knowledge or consent. In a study conducted by the Asia-Pacific Network of People Living with HIV and

AIDS (APN+), 12% of 753 people interviewed in India, Indonesia, the Philippines and Thailand said they were coerced into testing and 62% of the total sample received no post-test counselling. Women were more likely than men to be coerced into testing, usually due to pregnancy (Asia Pacific Network of people living with HIV and AIDS, 2004)

Directive Counselling

The purpose of antenatal VCT should be to help women prepare for a possible positive HIV diagnosis, to provide her with information about PPT options and to enable her to make informed decisions about continuing or ending a pregnancy. A Swedish study found that some women and their partners needed three to five counselling sessions before they made a decision on whether to continue or terminate a pregnancy; this was especially the case when the HIV diagnosis was made during the pregnancy (Lindgreen et al; 1998). Often, the counselling that HIV- positive women receive is highly directive. Reports from India, Russia, South Africa and the Ukraine indicate that some providers pressure HIV-positive women to undergo abortions and sterilization (Savelieva, 2000). In the APN+ study, 12% of 348 had been coerced into abortion or sterilization because of their HIV status (Asia Pacific Network of people living with HIV/AIDS, 2004). A governmental evaluation of the PPT programme in two regions of Thailand, carried out in 2000, showed that 22 of 46 HIV- positive women compared with 19 of 65 HIV-negative women had a tubal ligation after delivery; interviews with 48 counsellors revealed that 42 recommended sterilization to all HIV-positive women (Kanshana. S, & Simonds, R. J.2000).

Lack of ongoing HIV Treatment

In many countries with high HIV prevalence women who receive a positive HIV diagnosis during pregnancy and whose stage of HIV progression indicates a need for ongoing ART do not receive it. The law in some Latin American countries stipulates that the government must guarantee ART as part of the treatment given to people living with HIV and AIDS (e.g. Brazil, Venezuela). Most recently, Peru passed legislation not only requiring that women undergo mandatory counseling and HIV testing but also that they receive ongoing medical care, including free ART. However, access to ART is severely restricted in other regions. UNAIDS reported that by June 2004, only one in every 10 people who need ART worldwide were receiving it and only 1% of women in countries with high HIV prevalence were offered PPT services (UNAIDS, 2004). At the end of 2004, only 700 000 of the estimated 5.8 million people needing ART in developing countries were actually receiving it; 72% of the unfulfilled needs for treatment were in Sub-Saharan Africa and 22% in Asia (WHO/UNAIDS, 2005).

Sharing of HIV Test Results with Family and Friends

Sharing HIV status is not only beneficial for people to receive emotional support from family and friends and help in future decision-making, it also reflects people's ability to understand and accept their HIV status. People who tested seropositive from general VCT service in Tanzania shared their HIV test results with a "significant other" of the same sex. Those who were married or cohabiting did not choose their partner. The significant other was usually chosen among close family members, usually from the same generation as the patient

(Lie and Biswalo, 1996). Similar findings were apparent from the Ugandan TASO/WHO evaluation (TASO/WHO, 1993-1994). After counselling the majority of people (90.4%) were able to reveal their HIV serostatus to close relatives. In that same evaluation, 85.3% reported revealing their HIV status to relatives other than household members and 67% revealed their status to household members. Only 36% revealed their status to spouses or regular sexual partners. When the VCT service was first set up in Zambia, people found it difficult to share results, especially immediately following testing (Kelly and Baggaley, 1994). A later evaluation from the same site showed that most people were to share their HIV status with someone (Baggaley, 1998). However, women in particular said it was shameful to HIV and, if they were known to be seropositive, they worried they would be discriminated against, and were particularly reluctant to tell their partners.

In a study from Uganda, 22 families with 1 or more adult members with HIV were interviewed about their responses to HIV and stigma. (McGrath, 1993). Approximately half of the People Living with AIDS (PLWA) interviewed said that they had not informed any of their family. They said that they feared their family would worry or would not understand. Some said that they feared rejection if their families know of their positive status. Family members who were informed said that they were shocked or feared the loss of their relative with HIV.

Lester (1995) reports that a small study from the United States showed that when women from San Francisco were questioned following antenatal VCT many had not disclosed their HIV status to any friend or family members. A study from London also revealed that people were more likely to share their test result

when they had symptomatic HIV disease or needed treatment and that disclosure enabled people to obtain additional support (Miller, Sabin, and Leask, 1998).

Improving HIV and AIDS VCT

In recent years, HIV and AIDS Voluntary Counselling and Testing have become increasingly important in national and international prevention and care efforts. It is therefore necessary to design strategies to promote the services and among them are the following:

1. HIV and AIDS Voluntary Counselling and Testing programmes should treat aspects of confidentiality very seriously. Health care professionals should be trained in basic counselling and communication skills to build a trusting relationship with their clients.
2. According to Shriver, Everett and Morin (2000), efforts to promote HIV and AIDS VCT require education on the benefits of testing and perhaps more importantly, reduction in stigmatizing attitudes towards people living with AIDS. Structural and social marketing interventions that aim to reduce AIDS stigmas will probably change societal beliefs about people living with AIDS, thereby decreasing resistance to seeking VCT. Public health laws need to be enacted to protect against AIDS discrimination and to protect the confidentiality of an individual's HIV status.
3. Social marketing campaigns should be effective at raising AIDS awareness and reduce AIDS stigmas. Anti-stigma campaigns can create positive environment for enacting policies to protect the human rights of people living with HIV and AIDS. Community mobilization and social

activism models can also have broad effect on AIDS stigmas. Only through these efforts will AIDS stigmas be reduced and the goals of VCT realized.

4. In accessing VCT, people should be assured of competent counselling and support from a trained counsellor. The counsellor clarifies essential information on HIV, HIV prevention and AIDS corrects misinformation and myths, and helps them cope with the test result afterwards. Hagembe, Gatei, and Kalibaba, (1998) study of VCT in Nairobi found counselling falling far short of these ideals, particularly concerning HIV prevention, informed consent, the implications of a negative test result and sharing information with a partner.

Summary

In summary, according to the social learning theory, identification and imitation as well as the environment has a real and important role in influencing expectant mothers' perception and attitude towards HIV and AIDS VCT. The Classical and Instrumental conditioning theories also emphasize that human learning results from conditioning. In other words, expectant mothers' perception and attitude towards HIV and AIDS VCT could be influenced by the consequences or outcome of previous experiences. The cognitivists on the other hand emphasize that the individual is a thinking being, intelligent and competent. In this case expectant mothers can take decisions concerning HIV and AIDS VCT. The literature also reveals some psycho-social problems and attitudinal

changes in behaviour some expectant mothers experience as a result of HIV and AIDS VCT.

Considering all the five theories discussed so far, the social learning underpins the study. It could be inferred from the social learning theorists' point of view that, people develop their attitudes from the environment in which they find themselves. It could be in the school, home, hospital, and playground or among friends and relatives. Through mere observation of people's actions in the environment, one can then form his or her own attitude. For example, if an expectant mother attends antenatal clinic and observes that the HIV and AIDS VCT health care providers are warm in their relationship with clients, respectful and trustworthy; she would be motivated to go for HIV and AIDS VCT irrespective of the outcome of the test results. If on the other hand, her observations are on the contrary she would avoid attending the clinic.

CHAPTER THREE

METHODOLOGY

Introduction

This chapter discusses the research design, the population, the sample as well as the sampling procedure. In addition, the research instrument and the data collection procedure including pilot-testing, fieldwork and data analysis are described.

Research Design

The study design was a case study which is a qualitative descriptive research technique. According to Indrani (2005), a case study involves detailed investigations of a few people, a community or a particular situation, or a collection and presentation of detailed information about a particular or small group frequently including the accounts of the subjects themselves. It gives understanding of behaviour or an issue, and can add to what is already known or explore new ideas

A case study asks why and how certain situations occur, and provide insight into the meanings of decisions and actions (Indrani, 2005). It is designed to find out how people feel or think about a particular subject or institution. It does not look at cause-effect relationships; instead, emphasis is placed on exploration and description. Yin (1984) also asserts that the researcher who

embarks on a case study is usually interested in a particular phenomenon and wishes to understand it completely.

Schweigert (1998) made it clear that case studies may be objective or very subjective; they may utilize a number of methodological techniques – naturalistic observation, surveys, interviews and other approaches.

The case study was preferred because it narrows its focus on a particular group the researcher wants to understand completely. Even though subjectivity could manifest in the present study, the design was appropriate for the study since it would provide first hand information on what prevails among the subjects under study. It is however, hoped that the criticisms from experts would sharpen the instrument to reduce the inconsistencies. Similarly the confidentiality of respondents would also encourage respondents to be truthful as much as possible with their responses.

The Study Population

The population for the study was made up of all expectant mothers in the Central Region of Ghana. Expectant mothers both married and unmarried who were residing in Cape Coast and had attended antenatal clinic at the time of the study at the Central Regional hospital, constituted the accessible population. These expectant mothers were one hundred and twenty-three in number. Expectant mothers who were not resident in Cape Coast but were at the antenatal clinic at the time of the study were excluded from the study.

Sampling Procedures

Convenience sampling and purposive sampling methods were used in recruiting the study participants. The convenience sampling was adopted because according to Sarantakos (1998) when such a sampling technique was employed, all units for study that the researcher accidentally came into contact with during a certain period of time were considered. Such samples were easy to construct and evaluate. The convenience sampling method also gave easy access to a sample. It was quicker and cheaper than other methods.

Purposive sampling was found to be relevant to the study because the researcher had in mind subjects who, in her opinion, were relevant to the research topic. With these sampling designs in mind, only pregnant women from Cape Coast metropolis were invited to participate in the study when they came to the antenatal clinic. They were recruited in close consultation with the nurse midwives. The nurse midwives were instructed to invite all the pregnant women regardless of their age, educational levels and occupation to participate in the study. Out of the total number of one hundred and twenty-three pregnant women who were approached, forty agreed to participate in the study which commenced from the month of March, 2006 to the end of April, 2006.

Sources of Data

The study made use of both primary and secondary data. The primary data were collected through fieldwork from expectant mothers at the ante-natal clinic using the interview schedule. On the other hand, secondary data were collected from published articles, journals and textbooks.

Instrument Validity and Reliability

According to Anastasi (1988), validity is concerned with what the instrument measures. It is the extent to which a measurement technique measures what it purports to measure. The strategy that was used to establish the content validity of the instruments was through the initial test exercise. Respondents were encouraged to comment on the individual items as well as make suggestions to sharpen the instrument. In addition, course mates were offered the opportunity to study the items and share ideas. The suggestions and criticisms from my supervisors were very important in restructuring the items. After modifying the instrument, the reliability of the instrument was calculated using the SPSS. The Cronbach alpha 0.79 was obtained.

Data collection procedure

The Fieldwork

Two nurse midwives were recruited as research assistants. Both nurse midwives had some experience in data collection. One of them who happened to be the co-ordinator at the antenatal clinic had a lot of experience on general issues related to HIV and AIDS, mother to child transmission of HIV (MTCT), Voluntary Counselling and Testing (VCT) and the prevention of mother to child transmission programme (PMTCT).

This notwithstanding, the research assistants were trained in interview techniques for two days prior to pilot-testing of the research tools. The training included discussions of the research topic and its purpose, translation of the questions which were in English Language into the local language. In the

translation of items into the local language (Fante) a research assistant from the Department of Ghanaian Languages of the University of Cape Coast was invited to assist for two days. The reason was that such a resource person could interpret, speak and understand the local language with a minimum degree of error. Each research assistant was given the opportunity to explain each question in the way she understood it, after which the most appropriate interpretation was adopted by the research team in the local language in which the questions were asked. The interviews were however conducted in both Fante and the English Language. During the time of the training, the research assistants were asked to be supportive and to refrain from influencing the responses of the participants through their own opinion.

During the antenatal days beginning from the month of March, 2006 till the period when the sample size was realized, the researcher was at the Central Regional Hospital with the midwives in charge of the clinic to recruit those who were interested in the study. Those who expressed the interest to participate but wanted to be interviewed at a later time at home or a place of their choice, were made to provide their residential addresses and telephone numbers for the follow-up interview.

Pilot- Testing of Instrument

An initial draft of the interview schedule was pilot-tested by the researcher and her team of two research assistants at Effia-Nkwanta hospital which happened to be a regional hospital. This health facility offered voluntary counselling and testing in antenatal care setting. This exercise was essential in order to check for clarity, the applicability and acceptability of the items and the clarity of the

instructions. It also gave the researcher the opportunity to ensure that the items yielded the desired information and know what the results of the main study were likely to be. Problems that were likely to be encountered in the conduct of the study were detected through this pilot study.

The researcher sought the consent of fourteen expectant mothers who had come to the antenatal clinic to be interviewed. They were briefed on the purpose of the study and their co-operation solicited. The interview was face to face. It was conducted at the clinic with the help of the health staff and the research assistants. On the average each interview lasted for twenty minutes. Based on the observations made during the pilot-testing exercise, some of the items in the original questionnaire were slightly modified. For example, item 35 which read ‘why are you afraid to go for HIV and AIDS VCT?’ was modified to read ‘what will discourage you to go for HIV and AIDS VCT?’ Also, item 36 which read ‘do you like to test for HIV and AIDS?’ was reframed to read ‘what will encourage you to go for HIV voluntary counselling and testing?’

Instrumentation

A fifty-one item pre-tested interview schedule was used to collect the data. The items were personally developed to cover the issues and topics raised in the objectives and the research questions. The items consisted of a combination of open-ended and close-ended forms (see Appendix A).

The interview schedule was divided into four sections (Sections A, B, C and D). In section A, the respondents were asked to provide information on their age, marital status, educational qualifications, and occupation. Section B, focused

on knowledge on HIV and AIDS Voluntary Counselling and Testing. Questions on AIDS, transmission and prevention of HIV and AIDS and Voluntary Counselling and Testing were asked. Knowledge questions which were closed-ended got 1 point if correct and a score of 0 if incorrect answer was given. For the open-ended questions, score of 0 if incorrect answer was given, 1 if only one correct answer was given and 2 if 2 or more correct answers were given.

In section C, expectant mothers responded to thirteen attitude statements. The statements were purported to find out their attitudes towards HIV and AIDS VCT. The attitude statements were measured on a 3-point likert type scale (3 = Agree, 2 = Uncertain, 1 = Disagree). A score of 3 on the scale represented a positive attitude and a lower score of 1 a negative attitude. Other questions in the section elicited information on their experience and opinion on HIV and AIDS Voluntary Counselling and Testing issues. The final section D, focused on how expectant mothers perceived HIV and AIDS Voluntary Counselling and Testing. They were made to respond to ten perception statements. These statements were measured using a 3-point likert type scale (3 = Agree, 2 = Uncertain, 1 = Disagree). On this scale a score of 3 indicates a positive perception and a low score of 1 represents a negative perception. Again, every respondent had an interview schedule with an identification number on which the responses were recorded. Throughout the interactions at the clinic, expectant mothers were assured by the researcher and the midwives of anonymity and confidentiality of their responses. Each interview session lasted between 20-30 minutes.

Problems Encountered during Data Collection

The peculiar problem encountered throughout the study was the unwillingness of some of the expectant mothers to participate in the exercise. The expectant mothers had the impression that the study was funded and that they were expecting some monies from the team. It was quite clear from their behaviour that earlier researchers failed to meet the financial and material promises. Even though some of them were willing to freely participate without preconditions, it took the team persistent efforts to convince many of them to participate in the study.

Another problem was that on many occasions, the team's work was occasionally interrupted by customers of some of the interviewees who were traders. These situations made the research team extend the number of days scheduled to complete the exercise. This had a lot of financial implications for the researcher.

Data Processing and Analysis

Before the responses of the interview schedule were coded for tabulation and analysis, the researcher edited all the items. The editing stage provided an opportunity for checking whether respondents had answered all questions. The interview schedule was edited as a whole rather than editing one question at a time. This method helped the researcher to note the relationship between answers to different questions and to detect inconsistencies. The purpose was also to classify answers to questions into meaningful categories so as to bring out their essential patterns for analysis. After the data was cleared and edited, it was entered into a computer and then analyzed using SPSS.

Analyses of the data for answers to research questions 1, 2, 3, 4 and 5 were done using descriptive statistics. The t-test statistic and One-Way Anova was used in testing hypotheses 1 and 2 respectively.

CHAPTER FOUR

ANALYSIS OF DATA AND DISCUSSION OF RESULTS

Introduction

The chapter focuses on the background characteristics of the respondents and their knowledge and sources of information about HIV and AIDS VCT. It also examines psycho-social barriers to HIV and AIDS VCT. The attitude and perception of expectant mothers toward HIV and AIDS VCT would also be analyzed. Finally, the research questions and hypotheses will be analyzed and discussed.

Background Characteristics of Expectant Mothers

Age Distribution of Expectant Mothers

From Table 1, the modal age group of the expectant mothers in the study was 26 years and above. There were 27(67.5%) of the expectant mothers who were 26 years and above. There were also 10(25%) of them who were in the 22-25 age groups. However, only 2 (5%) and 1(2.5%) were between 14-17 years and 18-21 age groups respectively. The overall mean age of the expectant mothers was 26 years. From the age characteristics analyzed above, it can be said that the majority of the expectant mothers in the study were adults.

Table 1**Age distribution of expectant mothers**

Age (in years)	No	%
14 – 17	2	5
18 -21	1	2.5
22 – 25	10	25
26 and above	27	67.5
Total	40	100.0

Source: Fieldwork, 2006

Educational Background of Expectant Mothers

From Table 2, the educational background of the expectant mothers showed that majority of the expectant mothers had at least some form of formal education. There were 21(52.5%) of the expectant mothers who had tertiary education; 9(22.5%) possessed the middle or basic education while 4(10%) had no formal education.

Table 2**Educational background of expectant mothers**

Education	No	%
No formal education	4	10
Middle/basic education	9	22.5
Secondary/vocational/commercial education	6	15
Tertiary education	21	52.5
Total	40	100.0

Source: Fieldwork, 2006.

Marital Status of Expectant Mothers

From Table 3, out of the 40 expectant mothers in the study, 31 (77.5%) were married compared with only 9(22.5%) who were not married at the time of the investigation. The mean ages of married and unmarried expectant mothers were 27 years and 25 years respectively.

Table 3
Marital status of expectant mothers

Marital status	No	%
Married	31	77.5
Unmarried	9	22.5
Total	40	100.0

Source: Fieldwork, 2006.

Occupational Status of Expectant Mothers

The analysis of the occupational status of expectant mothers as indicated in Table 4, showed that 14(35%) were into teaching and trading respectively, while 6(15%) were also in the nursing profession.

Table 4
Occupational status of expectant mothers

Occupation	No	%
Teaching	14	35
Trading	14	35
Nursing	6	15
Sewing	4	10
Hairdressing	2	5
Total	40	100.0

Source: Fieldwork, 2006.

Research Questions

Research Question 1:

What knowledge do expectant mothers have about HIV and AIDS Voluntary Counselling and Testing?

Expectant mothers responded to knowledge questions concerning HIV and AIDS VCT. Many of the expectant mothers scored the knowledge questions correctly. It was adequately clear from their responses that they had a lot of information about HIV and AIDS. From Table 5, all the expectant mothers had heard about the disease AIDS and were aware of where to go for HIV testing. All the expectant mothers were also aware that they could transmit the AIDS virus through delivery. 39 (97.5) expectant mothers, compared with 1(2.5%) were aware that if they were diagnosed HIV- positive they could transmit it to the unborn child. There were as many as 39 (97.5%) of them compared with 1(2.5%) who knew how to avoid getting the virus that causes AIDS. It was the opinion of 39 (97.5%) of the expectant mothers compared with 1 (2.5%) that HIV and AIDS Counselling should be offered before taking an HIV test. It is again significant to note that, 37(92.5%) of the mothers compared with only 3 (7.5) mentioned two or more methods of preventing HIV infection.

From what had been said above, it could be seen from the study that the expectant mothers had very good general knowledge about HIV and AIDS and its prevention methods. With respect to knowledge about HIV and AIDS VCT, all the expectant mothers were well informed. It is possible that the high level of exposure to information were as a result of the campaign by government, mass media and other stake holders with the inception of HIV epidemic. According to

23 (57.5%) of the expectant mothers, their first source of HIV and AIDS VCT information was from health officials (Table 9). However, the indication was that expectant mothers had information on HIV and AIDS VCT from many sources. The most important sources were the television and radio (Table 6) The findings that for the health officials, television and radio were the important sources of information confirms the findings of Jammeh (2005) in his study of pregnant women in Western Health Division, in Gambia, that for health workers, radio and television were the important sources of voluntary HIV Counselling and Testing.

It is possible that health workers were cited as the first source of information on HIV and AIDS VCT because HIV and AIDS VCT had been integrated into the existing ante-natal services in the health facility where the study was conducted. At the clinic, for example, face-to-face health education was offered to pregnant women when they came for the routine ante-natal care services. In respect of the influence from television and radio, it was not surprising since many middle respondents could afford to buy any one of the gadgets.

Table 5**Expectant mothers knowledge about HIV and AIDS VCT**

Knowledge Questions	Response (n= 40)			
	Yes		No	
	No	%	No	%
Have you heard of the disease AIDS?	40	100	-	-
Do you know where you can go for HIV test?	40	100	-	-
If you are HIV- positive and you are pregnant, can you transmit it to the unborn child?	39	97.5	1	2.5
Can you give AIDS virus to your baby through delivery?	40	100	-	-
Is there anything that you can do to avoid getting the virus that causes AIDS?	39	97.5	1	2.5
Have you heard about HIV and AIDS VCT?	40	100	-	-
Should HIV counselling be offered before taking an HIV test?	39	97.5	1	2.5
Should people who do not want pre-test counselling be prevented from taking HIV Test?	19	47.5	21	52.5
Mention two or more ways by which HIV and AIDS can be transmitted.	35	87.5	5	12.5
Mentioned two or more methods of preventing HIV infection	37	92.5	3	7.5

Source: Fieldwork, 2006

Sources of HIV and AIDS VCT Information

Expectant mothers indicated through the interview sessions their awareness of HIV and AIDS Voluntary Counselling and Testing. From Table 6 below, expectant mothers had information on HIV and AIDS Voluntary Counselling and Testing from many sources. The most important source of HIV and AIDS VCT information was the television. There were 11(27.5%) of the expectant mothers who had information from the television. Radio was the next important source of HIV and AIDS VCT information for expectant mothers. The third important source of HIV and AIDS VCT information was from a health facility where 6 (15%) of the expectant mothers had HIV and AIDS VCT information. However, only 2 (5%) of the expectant mothers had HIV and AIDS VCT information from the church.

Table 6

Source of HIV and AIDS Voluntary Counselling and Testing information

Source	No	%
Health facility	6	15
Television	11	27.5
Radio	10	25
Church	2	5
Through reading	5	12.5
School	3	7.5
Workshop	3	7.5
Total	40	100.0

Source: Fieldwork, 2006

Mode of HIV and AIDS Transmission

Expectant mothers were asked to provide information on how HIV and AIDS could be transmitted. From Table 7, there were 30 (75%) expectant mothers who said HIV and AIDS could be transmitted through unprotected sex. There were 6(15%) who said HIV and AIDS could be transmitted through blood transfusion. However, only 1(2.5%) said HIV and AIDS could be transmitted through breastfeeding.

Table 7

Mode of transmission of HIV and AIDS

Source	No	%
Infected sharp objects	3	7.5
Unprotected sex	30	75
Blood transfusion	6	15
Breastfeeding	1	2.5
Total	40	100.0

Source: Fieldwork, 2006

HIV and AIDS Preventive Measures

Expectant mothers were asked to identify various ways in which HIV and AIDS infection could be prevented. Out of the 40 expectant mothers, 19 (47.5%) mentioned abstinence from sex. There were 14 (35%) of the expectant mothers who mentioned the use of condoms. However, only 1 (2.5%) of the expectant mothers said HIV infected mothers should not be allowed to breastfeed (Table 8).

Table 8**HIV and AIDS preventive measures**

Preventive measure	No	%
Use of condom	14	35
Abstinence	19	47.5
Faithful to sex partner	6	15
Infected mothers should not breastfeed	1	2.5
Total	40	100

Source: Fieldwork; 2006.

Expectant Mothers' First source of HIV and AIDS VCT Information

Expectant mothers were asked where they first heard about HIV and AIDS VCT. From Table 9, there were 23 (57.5%) of the expectant mothers who first heard about HIV and AIDS VCT from health officials. The next important source of HIV and AIDS VCT information was from television. There were 8 (20%) of the expectant mothers who first heard of HIV and AIDS VCT from television.

Table 9**First source of HIV and AIDS VCT**

Source	No	%
Health officials	23	57.5
Television	8	20
Friends	4	10
Journals	5	12.5
Total	40	100

Source: Fieldwork, 2006.

Intended Disclosure of HIV and AIDS Status

From Table 10, expectant mothers were asked who they would like to notify in case they should test HIV positive. Interestingly, 19 (47.5%) indicated that they would like to notify their parents should they be tested HIV positive. There were 11 (27.5%) who had the intention to notify their siblings should they be tested HIV positive. However, only 2 (5%) of the expectant mothers stated that they were prepared to disclose their HIV status to their partners in case they should test HIV positive.

Table 10

Intended disclosure of HIV and AIDS status

Who to disclose HIV and AIDS test result	No	%
Sexual partner	2	5
Friend (s)	4	10
Siblings	11	27.5
Parents	19	47.5
Pastor	4	10
Total	40	100.0

Source: Fieldwork, 2006

Testing for HIV and AIDS

Expectant mothers were asked how they took the decision to test for HIV and AIDS. The analysis of the responses of 30 expectant mothers who indicated that they had tested for HIV and AIDS is presented in Table 11.

Table 11

Taking decision toward HIV and AIDS test

Question	No	%
Did you ask for the HIV and AIDS test?	8	26.6
Were you persuaded to go for HIV and AIDS test?	20	66.7
Was it a requirement to go for the HIV and AIDS test?	2	6.7
Total	30	100.0

Source: Fieldwork; 2006

There were 20(66.7) mothers who were persuaded to go for the HIV and AIDS test. Another 8(26.6%) of the mothers said they did not ask for the test. However, only 2(6.7%) of the expectant mothers said that they went for the test because it was a requirement.

Research Question 2

What are the psychological and social barriers to HIV and AIDS VCT?

Expectant mothers were requested to provide information on barriers to HIV and AIDS VCT. From Table 12, a lot of barriers which appeared to be psychological and social in nature were identified. For example, the analysis of the responses indicated that 40% of the expectant mothers did not trust the confidentiality of the health workers. It was not unusual for cases involving HIV and AIDS to be treated with the utmost confidentiality it deserved. In Ghana, AIDS related stigmas are culturally and socially pervasive. For this reason, the expectant mothers could not trust the confidentiality of the healthcare providers.

They had serious doubts and anxieties about the confidentiality of their HIV test results. This supposed fear is confirmed by deBbuyn et al. (2002), who reported in a study in India and Kenya where the respondents noted that healthcare providers do not always maintain confidentiality regarding pregnant woman's positive HIV test results. Expectant mothers were therefore, not comfortable to have their results known by other people, especially, should the test result be HIV positive. This confirms the findings of Pool et al. (2001), and Arthur et al. (2000) that in many parts of Africa lack of trust in the public healthcare system is a huge stumbling block in the provision of comprehensive VCT. In another study, Pool et al. (2001) reported that because health-care professionals did not keep their results confidential, it was not advisable for a person to know his/her HIV status at all. In their study 34% of the respondents said their confidentiality had been breached, usually by a health care worker. Reports from Jamaica have also indicated lack of confidentiality in labour wards (Mullings et al., 2004)

The social cost involved to be declared HIV positive was an important barrier for expectant mothers to go for HIV and AIDS VCT. Expectant mothers were also afraid to disclose HIV positive results to their husbands. From Table 12, there were 10 (25%) of the expectant mothers who expressed fear to disclose positive results to their husbands. This confirms the findings of Mukassa et al. (2001) and Painter et al. (2001) that considerable number of women hesitates to disclose their status to their partners for fear of being physically assaulted, rejected or abandoned. It also corroborates the findings of Ekanem (2001) 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. The negative outcomes

following disclosure were enough to make expectant mothers avoid HIV and AIDS VCT. This perhaps explains why expectant mothers were prepared to be tested for HIV at a hospital outside their own community (see Table 13).

Table 12

Psycho-social barriers to HIV and AIDS VCT

Responses	No	%
Health workers cannot be trusted to keep results secret	16	40
No need to know status when there is no cure for AIDS	2	5
Cannot cope with medical bills	1	2.5
Fear to disclose HIV positive results to husband	10	25
Fear of public stigma	4	10
Knowing HIV and AIDS status would be stressful	6	15
Distance from health centre	1	2.5
Total	40	100.0

Source: Fieldwork, 2006.

Research Question 3

What is the attitude of expectant mothers towards HIV and AIDS Voluntary Counselling and Testing?

The mean scores in Table 13 provided the basis for describing the attitude of expectant mothers towards HIV and AIDS VCT. In the interpretation of the data, subjects who had a mean score of 2.5 and above were described as having a positive attitude whereas those with a mean score below 2.5 of the total were described to have a negative attitude.

The overall attitudes of the expectant mothers, however, indicated that expectant mothers had a positive attitude towards HIV and AIDS VCT. Out of the 13 attitude statements, expectant mothers responded positively to 9 of them. From Table 13, a mean score of 2.95 scored on the statement, 'I consider HIV and AIDS VCT as beneficial' was an indication that expectant mothers were very positive of its benefits. With another mean score of 2.83 to the statement 'I will change my sexual behaviour if I am tested HIV-positive', the indication was that the expectant mothers had a positive inclination to change their sexual behaviour after being diagnosed HIV- positive. There were also positive attitude responses to 3 of the statements that had a mean score of 2.70 each from the expectant mothers. These were: 'I will like to be tested for HIV at a hospital outside my community', 'I can get HIV', and 'I will change my sexual behaviour if I am tested HIV- negative'. With a mean score of 2.63 the expectant mothers trusted the confidentiality of the medical personnel. A score of 2.60 was also an indication that the expectant mothers were not prepared to disclose their HIV-positive status. Finally, a mean score of 2.50 to the statements 'fear of discrimination will prevent me from going for VCT' and 'the location of the counselling office will influence my decision to go for VCT' reflected positively the feelings of the expectant mothers. However, the expectant mothers expressed negative attitude towards 4 of the attitude statements. These were: 'I will like to be tested for HIV at my own community; I will be emotionally not be disturbed if I am tested HIV- positive; and No matter the distance I will go to the service centre; and I am afraid of testing HIV positive.

From the above analyses, it could be seen from Table 13 that, the overall mean score of the attitude of expectant mothers towards HIV and AIDS VCT was positive. This confirms the findings of Holmes (2004) that experience in antenatal clinics shows that relatively few women formally opt out of HIV and AIDS VCT. It also corroborates the findings of Kairie et al (2000) in a Kenyan study that 69% of 399 pregnant women agreed to an HIV and AIDS VCT. It is very possible that media based efforts by the government, Ministry of Health and other relevant agencies have contributed to increased levels of HIV and AIDS awareness and some improvements in knowledge about HIV and AIDS VCT

In the study, the expressed desire of the expectant mothers to be tested for HIV at a hospital outside their community was very revealing. The fear of stigmatization and discrimination perhaps explains the decision of the respondents. This supports Herek, Capitanio and Widaman's (2003) findings that stigma influences testing decisions. In fact, stigma and discrimination were likely going to make the expectant mothers vulnerable to isolate from their community. Therefore, to avoid being identified as HIV-positive, the expectant mothers were prepared to test for HIV outside the community. The expressed desire of the expectant mothers to be tested for HIV at a hospital outside their community perhaps stems from the fear of stigma and discrimination. In Ghana, AIDS related stigmas are socially and culturally pervasive. The expectant mothers saw that they could stand the risk of being isolated by the community as well as family members.

Table 13**Attitude of expectant mothers towards HIV and AIDS VCT**

Item	N	Mean	Std deviation
I am afraid of testing HIV positive	40	2.46	.749
I trust the confidentiality of medical personnel	40	2.63	.667
The location of the counselling office will influence my decision to go for VCT	40	2.50	.716
No matter the distance I will go to the service centre	40	2.33	.797
Fear of discrimination will prevent me from going for VCT	40	2.50	.716
I am afraid to disclose my HIV positive status	40	2.60	.744
I will be emotionally disturbed if I am tested HIV positive	40	2.28	.751
I will like to be tested for HIV at my own community hospital	40	2.10	.871
I will change my sexual behaviour if I am tested HIV positive	40	2.83	.501
I will change my sexual behaviour if I am tested HIV negative	40	2.70	.608
I can get HIV	40	2.70	.516
I consider HIV and AIDS VCT as beneficial	40	2.95	.361
I will like to be tested for HIV at a hospital outside my own community	40	2.70	.564
Total attitude	40	2.5667	.30616

Source: Fieldwork, 2006.

Since the expectant mothers were convinced that HIV and AIDS VCT was beneficial, then it stands to explain why they saw themselves as vulnerable to HIV infection. Ekanem and Gbadegesin (2004) in a study in Nigeria contradict the findings. In their study 82% of the pregnant women believed that they were at no risk of contracting HIV infection. In another study in Hong Kong two thirds of participating pregnant women believed that there was no chance for them to contract HIV (Loke, 2003). The perceived vulnerability of the expectant mothers perhaps was because they never trusted their partners or themselves. Another reason could be that most of them knew some of their colleagues who had already been tested and found to be HIV-positive.

Contrary to the findings of Arthur et al. (2000), Pool et al (2001) and Vandyk and Vandyk (2003), that the lack of trust in the public health care system was a huge stumbling block in VCT, expectant mothers trusted the confidentiality of the health staff.

The expectant mothers were afraid to disclose their HIV status. This fear is consistent with the findings of Campbell et al. (1997) and Gaillard et al. (2000) that women preferred to keep their results from their sex partners. They feared rejection, divorce, and molestation from their partners.

Finally, distance was a very important determining factor for the expectant mothers to access VCT services. For services to be accessible, the distance from home to VCT services in the view of the expectant mothers should not be too long.

Level of Education of Expectant Mothers and Attitude towards HIV and AIDS VCT

The mean scores in Table 14 provided the basis for describing the level of education of expectant mothers and their attitudes toward HIV and AIDS Voluntary Counselling and Testing. In analyzing the data, a score of 2.5 and above represented a positive attitude whereas a score below 2.5 was a negative attitude towards HIV and AIDS VCT.

Table 14

Level of education of expectant mothers and attitude towards HIV and AIDS VCT

Statement	Level of Education	N	Mean	SD
I am afraid of testing HIV- positive	No formal education	4	3.00	.000
	Middle/basic school	9	2.22	.972
	Sec/ voc/com	6	2.67	.516
	Tertiary education	21	2.38	.740
	Total	40	2.45	.749
I trust the confidentiality of the medical personnel	No formal education	4	2.50	.577
	Middle/basic school	9	2.67	.5000
	Sec/ voc/com	6	2.33	1.033
	Tertiary education	21	2.71	.644
	Total	40	2.63	.667
The location of the counselling office will influence my decision to go for VCT	No formal education	4	2.25	.500
	Middle/basic school	9	2.78	.441
	Sec/ voc/com level	6	2.67	.516
	Tertiary education	21	2.38	.865
	Total	40	2.50	.716

Table 14 continued

Statement	Level of Education	N	Mean	SD
No matter the distance I will go to the service centre	No formal education	4	2.00	.816
	Middle/basic school	9	2.78	.441
	Sec/ voc/com	6	2.50	.837
	Tertiary education	21	2.14	.854
	Total	40	2.33	.797
Fear of discrimination will prevent me from going for VCT	No formal education	4	2.75	.500
	Middle/basic school	9	2.56	.726
	Sec/ voc/com	6	2.67	.816
	Tertiary education	21	2.38	.740
	Total	40	2.50	.716
I am afraid to disclose my HIV status	No formal education	4	3.00	.000
	Middle/basic school	9	2.78	.667
	Sec/ voc/com	6	2.67	.816
	Tertiary education	21	2.43	.811
	Total	40	2.60	.744
I will be emotionally disturbed if I am tested HIV positive	No formal education	4	3.00	.000
	Middle/basic school	9	2.89	.333
	Sec/ voc/com	6	2.83	.408
	Tertiary education	21	2.52	.680
	Total	40	2.70	.564
I will like to be tested for HIV at my own community hospital	No formal education	4	1.75	.957
	Middle/basic school	9	2.56	.726
	Sec/ voc/com	6	2.33	.816
	Tertiary education	21	1.90	.889
	Total	40	2.10	.871
I will change my sexual behaviour if I am tested HIV –positive.	No formal education	4	2.75	.500
	Middle/basic school	9	2.89	.333
	Sec/ voc/com	6	2.67	.816
	Tertiary education	21	2.86	.478
	Total	40	2.83	.501

Table 14 continued

Statement	Level of Education	N	Mean	SD
I will change my sexual behaviour if I am tested HIV –negative	No formal education	4	3.00	.000
	Middle/basic school	9	2.78	.441
	Sec/ voc/com	6	3.00	.000
	Tertiary education	21	2.52	.750
	Total	40	2.70	.608
I can get HIV	No formal education	4	2.75	.500
	Middle/basic school	9	2.56	.726
	Sec/ voc/com	6	2.67	.516
	Tertiary education	21	2.76	.436
	Total	40	2.70	.516
I consider HIV and AIDS VCT as beneficial	No formal education	4	3.00	.000
	Middle/basic school	9	3.00	.000
	Sec/ voc/com	6	3.00	.000
	Tertiary education	21	2.90	.436
	Total	40	2.95	.316
I will like to be tested for HIV at a hospital outside my community	No formal education	4	2.50	.577
	Middle/basic school	9	2.33	.866
	Sec/ voc/commercial	6	2.67	.516
	Tertiary education	21	2.10	.768
	Total	40	2.28	.751
Overall attitude	No formal education	4	2.6346	.07365
	Middle/basic school	9	2.6752	.17105
	Sec/ voc/com	6	2.6667	.23668
	Tertiary education	21	2.4615	.34487
	Total	40	2.5577	.29188

Source: Fieldwork; 2006

To find out whether the mean differences were significant, the one way analysis of variance was used. From Table 15, there was no significant difference

between the expectant mothers' level of education with respect to the attitude statements.

Table 15

One –way analysis of variance of the level of education of expectant mothers and attitude towards HIV and AIDS VCT

Statement		Sum of Squares	Df	Mean Square	F	Sig
I am afraid of testing HIV- positive	Between Groups	2.059	3	.686	1.245	.308
	Within Groups	19.841	36	.551		
	Total.	21.900	39			
I trust the confidentiality of the medical personnel	Between Groups	.756	3	.252	.546	.654
	Within Groups	16.619	36	.462		
	Total.	17.375	39			
The location of the counseling office will influence my decision to go for VCT	Between Groups	1.409	3	.470	.909	.446
	Within Groups	18.591	36	.516		
	Total.	20.000	39			
No matter the distance I will go to the service centre.	Between Groups	3.148	3	1.049	1.747	.175
	Within Groups	21.627	36	.601		
	Total.	24.775	39			
Fear of discrimination will prevent me from going for VCT	Between Groups	.742	3	.247	.462	.710
	Within Groups	19.258	36	.535		
	Total.	20.000	39			
I am afraid to disclose my HIV status	Between Groups	1.568	3	.523	.939	.432
	Within Groups	20.032	36	.556		
	Total.	21.600	39			

Table 15 continued

Statement		Sum of Squares	Df	Mean Square	F	Sig
I will be emotionally disturbed if I am tested HIV positive	Between Groups	1.440	3	.480	1.576	.212
	Within Groups	10.960	36	.304		
	Total.	12.400	39			
I will like to be tested for HIV at my own community hospital	Between Groups	3.485	3	1.162	1.601	.206
	Within Groups	26.115	36	.725		
	Total.	29.600	39			
I will change my sexual behaviour if I am tested HIV –positive.	Between Groups	.231	3	.077	.291	.832
	Within Groups	9.544	36	.265		
	Total.	9.775	39			
I will change my sexual behaviour if I am tested HIV –negative	Between Groups	1.606	3	.535	1.507	.229
	Within Groups	12.794	36	.355		
	Total.	14.400	39			
I can get HIV	Between Groups	.285	3	.095	.338	.798
	Within Groups	10.115	36	.281		
	Total.	10.400	39			
I consider HIV and AIDS VCT as beneficial	Between Groups	.090	3	.030	.285	.836
	Within Groups	3.810	36	.106		
	Total.	3.900	39			
I will like to be tested for HIV at a hospital outside my community	Between Groups	1.832	3	.611	1.091	.365
	Within Groups	20.143	36	.560		
	Total.	21.975	39			
Overall attitude	Between Groups	.413	3	.138	1.705	.183
	Within Groups	2.909	36	.081		
	Total.	3.322	39			

Source: Fieldwork; 2006.

Attitude of Married and Unmarried Expectant Mothers towards HIV and AIDS VCT

The mean scores in Table 16 provided the basis for describing the attitude of married and unmarried expectant mothers towards HIV and AIDS VCT. In analyzing the data, subjects who had a mean score of 2.5 and above were described as having a positive attitude whereas those with a mean score below 2.5 of the total were described to have a negative attitude.

From Table 16, the overall attitudes of married and unmarried expectant mothers indicated that married expectant mothers had a positive attitude towards HIV and AIDS VCT. They expressed positive attitudes towards nine of the thirteen statements. The statements were: I trust the confidentiality of the medical personnel; the location of the counselling office will influence my decision to go for VCT; fear of discrimination will prevent me from going for VCT and I will be emotionally disturbed if I am tested HIV positive. The rest are; I will change my sexual behaviour if I am tested HIV negative; I will change my sexual behaviour if I am tested HIV positive; I can get HIV; and I consider HIV and AIDS VCT as beneficial.

However, married expectant mothers responded negatively to the statements: I am afraid of testing HIV positive; no matter the distance I will go to the service centre; and I will like to be tested for HIV at my own community hospital.

Table 16**Attitude of married and unmarried expectant mothers towards HIV and AIDS VCT**

Statement	Marital status	Mean	SD	T	DF	Sig																																																																																						
I am afraid of testing HIV positive	M	2.48	.769	.526	38	.602																																																																																						
	UM	2.33	.707				I trust the confidentiality of the medical personnel	M	2.65	.608	.351	38	.724	UM	2.56	.882	The location of the counselling office will influence my decision to go for VCT	M	2.58	.672	1.335	38	.190	UM	2.22	.833	No matter the distance I will go to the service centre	M	2.35	.798	.435	38	.666	UM	2.22	.833	Fear of discrimination will prevent me from going for VCT	M	2.55	.675	.789	38	.435	UM	2.33	.866	I am afraid to disclose my HIV status	M	2.65	.755	.708	38	.483	UM	2.44	.726	I will be emotionally disturbed if I am tested HIV-positive	M	2.81	.477	2.340	38	.025*	UM	2.33	.707	I will like to be tested for HIV at my own community hospital	M	2.29	.864	2.776	38	.008*	UM	1.44	.527	I will change my sexual behaviour if I am tested HIV – positive.	M	2.90	.301	1.894	38	.066	UM	2.56	.882	I wil change my sexual behaviour if I am tested HIV-negative	M	2.77	.560	1.454	38
I trust the confidentiality of the medical personnel	M	2.65	.608	.351	38	.724																																																																																						
	UM	2.56	.882				The location of the counselling office will influence my decision to go for VCT	M	2.58	.672	1.335	38	.190	UM	2.22	.833	No matter the distance I will go to the service centre	M	2.35	.798	.435	38	.666	UM	2.22	.833	Fear of discrimination will prevent me from going for VCT	M	2.55	.675	.789	38	.435	UM	2.33	.866	I am afraid to disclose my HIV status	M	2.65	.755	.708	38	.483	UM	2.44	.726	I will be emotionally disturbed if I am tested HIV-positive	M	2.81	.477	2.340	38	.025*	UM	2.33	.707	I will like to be tested for HIV at my own community hospital	M	2.29	.864	2.776	38	.008*	UM	1.44	.527	I will change my sexual behaviour if I am tested HIV – positive.	M	2.90	.301	1.894	38	.066	UM	2.56	.882	I wil change my sexual behaviour if I am tested HIV-negative	M	2.77	.560	1.454	38	.154	UM	2.44	.726						
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	UM	2.44	.726																																																																																									

Table 16 continued

Statement	Marital status	Sum of Squares	Df	Mean Square	F	Sig
I can get HIV	M	2.68	.541	-.508	38	.614
	UM	2.78	.441			
I consider HIV and AIDS VCT as beneficial	M	3.00	.000	1.919	38	.063
	UM	2.78	.667			
I will like to be tested for HIV at a hospital outside my own community	M	2.70	.773	-.262	38	.795
	UM	2.53	.707			

* Significant at the 0.05 level

Married= 31, Unmarried=9

Source: Fieldwork, 2006.

Expectant mothers who were not married, however, showed a positive attitude to the following attitude statements: I trust the confidentiality of the medical personnel; I will change my sexual behaviour if I am tested HIV positive; I can get HIV and I consider HIV and AIDS VCT as beneficial. For the rest of the nine statements, they expressed a negative attitude.

However, from Table 16, it is clear that notwithstanding the mean difference between married and unmarried expectant mothers' attitude towards HIV and AIDS VCT, the differences were not significant except for two of the statements: I will be emotionally disturbed if I am tested HIV positive and I will like to be tested for HIV at my own community hospital.

Research Question 4

What is the perception of expectant mothers towards HIV and AIDS

Voluntary Counselling and Testing?

The mean scores in Table 17 provided the basis for describing the perception of expectant mothers towards HIV and AIDS Voluntary Counselling and Testing. In analyzing the data, a score of 2.5 and above represented a positive perception whereas a score below 2.5 was a negative perception towards HIV and AIDS VCT.

The overall perception score of 2.6 was an indication that expectant mothers had a positive perception towards the HIV and AIDS VCT. There were seven out of the ten perception statements that the expectant mothers perceived positively.

The positively perceived statements were: HIV and AIDS VCT is successful in helping reduce risk behaviours; fear of discrimination can influence peoples' decision to go for VCT; HIV and AIDS VCT benefits both HIV-negative and HIV-positive clients and fear of breach of confidentiality by health care providers prevents clients from participating in HIV and AIDS VCT. The rest are: fear to disclose an HIV-positive status to sex partners prevents people from seeking HIV and AIDS VCT; misconception about AIDS can reduce one's willingness to seek for VCT and every pregnant mother needs to go for HIV test before delivery.

On the other hand, however, expectant mothers responded negatively to the following perception statements: HIV and AIDS VCT is an effective primary prevention for uninfected people; low risk perception may influence people's

decision to go for VCT and HIV and AIDS VCT programme are only intended for diagnostic purpose.

From the above analyses, it could be said that expectant mothers perceived HIV and AIDS VCT positively. If the instrumental conditioning theory by Thorndike (1932) and Skinner (1938) is valid, then it stands to reason that expectant mothers' positive perception towards HIV and AIDS VCT was as a result of the perceived benefits. According to the instrumental conditioning theorists, behaviour becomes more or less probable depending on its consequences. In other words, a particular behaviour will recur or not depending on the consequences of a response. The perceived rewarding consequences of HIV and AIDS VCT might have had a good impact in making the claim. It was however apparent that, the good knowledge about HIV and AIDS VCT might have influenced positively their perception of HIV testing before delivery. The fear expectant mothers expressed that discrimination could influence peoples decision to go for VCT was consistent with the findings of Lester (1995) that women from ante-natal VCT had expressed higher levels of health care discrimination, personal isolation and negative psychological sequaelae than their seronegative counterparts. Similarly the concerns of the expectant mothers about discrimination were also confirmed in a study by Krabbendam (1998) that stigma and discrimination increase people vulnerability by isolating and depriving them of treatment, care and support.

In the study, the expectant mothers expressed the positive perception that the fear to disclose an HIV- positive status to sex partners could prevent people from seeking HIV and AIDS VCT. This positive perception corroborates with the

findings of Mukassa et al. (2001) that considerable number of women hesitate to disclose their HIV status to their partners for fear of being physically assaulted, rejected or abandoned. Similarly, Painter et al. (2001) also reported that, women's reluctance to disclose their status was related to fear of rejection, abandonment, divorce and violence. Finally, Kilewo et al. (2001) has reported that violence, the break-up of marriages, being neglected or disowned by their families, the loss of security, shelter, food and relationships and even murder are real consequences when women disclose their HIV- positive status to their sex partners.

It was the view of the expectant mothers that confidentiality on the part of health care providers was very important in influencing people's decision to go for VCT. This fear of breach of confidentiality corroborates the findings of VanDyk and VanDyk (2003) that lack of trust in the public health care system is a huge stumbling block in the provision of comprehensive VCT services in South Africa. Similarly, it was reported in a study by Philips et al. (1995), that participants were only willing to be tested if absolutely no one else would have access to their test results. Finally, deBruyn et al. (2002) reports in an exploratory study with key informants in India and Kenya that health care providers do not always maintain confidentiality regarding pregnant women's positive HIV test results.

Table 17**Expectant Mothers Perception about HIV and AIDS VCT**

Perception statement	N	Mean	Std deviation
HIV and AIDS VCT is successful in helping reduce risk behaviours	40	2.60	.709
Fear of discrimination can influence people's decision to go for VCT.	40	2.80	.564
HIV and AIDS VCT is an effective primary prevention for uninfected people.	40	2.45	.783
Fear of breach of confidentiality by healthcare providers prevents clients from participating in HIV and AIDS VCT.	40	2.60	.709
Misconception about AIDS can reduce one's willingness to seek for VCT.	40	2.62	.628
Low risk perception may influence people's decision to go for VCT.	40	2.48	.640
HIV and AIDS VCT programme are only intended for diagnostic purpose	40	1.85	.921
Every pregnant mother needs to go for HIV test before delivery.	40	2.88	.404
Total perception	40	2.6125	.21743

Source: Fieldwork, 2006.

Research Question 5

How would expectant mothers encourage other pregnant mothers to go for HIV and AIDS VCT?

Expectant mothers' opinions were sought on how they would encourage fellow pregnant mothers to patronize HIV and AIDS VCT services at the clinic. From Table 18, there were three important ways the expectant mothers suggested in encouraging other pregnant mothers to go for VCT. The first important strategy suggested by 19 (47.5%) of the expectant mothers was that they would encourage other pregnant mothers to visit the clinic by telling them of the positive benefits they acquired at the clinic, 11(27.5%) also suggested they would advise health officials against mandatory testing at the clinics, while 5(10%) also said they would talk positively on the professionalism of health care personnel.

The decision by 19 (47.5%) of the expectant mothers to talk about the positive benefits of VCT with the aim of encouraging more pregnant women to seek VCT services at the clinic reinforces the social learning theory on how one's environment could shape attitudes. The social learning theory proposes that social behaviour is primarily learned by observing and imitating the actions of others. The rewarding benefits the expectant mothers had at the antenatal clinic could lead to a change in behaviour by influencing the thoughts, feelings and actions of other pregnant mothers. Insofar as the antenatal visits were beneficial, the likelihood was that other women would be encouraged to do the same.

Similarly, the decision of the expectant mothers' buttresses Thorndike (1932) and Skinner (1938) instrumental conditioning theory. According to the theory, behaviour becomes more or less probable depending on the consequences.

Whether a particular behaviour will recur or not depends on the consequences of a response. In this case a positive response from the expectant mothers on VCT services will likely influences attitudinal change.

From the study, 11(27.5%) of the expectant mothers were not happy about the mandatory testing at the clinic. In other words, they were of the view that VCT should be voluntary to encourage attendance to clinic. HIV is, in many communities, a stigmatizing condition, and this can lead to negative outcomes for some people following testing. If people were to feel comfortable and secure about seeking VCT, then in the view of the expectant mothers informed consent was necessary.

Table 18

How expectant mothers would encourage other pregnant mothers to attend HIV and AIDS VCT

Strategy	No	%
Tell other expectant mothers of the positive benefits.	19	47.5
Talk positively on the professionalism of the health care personnel.	5	10.0
Volunteer to be a resource person and occasionally give a talk to mothers attending the clinic for the first time.	2	5.0
To use the local language to talk about VCT on the local FM stations.	1	2.5
Will advice the Ministry of Health to offer incentives for mothers who volunteer for VCT (eg. care and support).	2	5.0

Table 18 continued

Strategy	No	%
Advice health officials against mandatory testing at the antenatal clinics.	11	27.5
Total	40	100

Source: Fieldwork. 2006

Hypotheses Testing

Hypothesis 1

There is no significant difference in the attitude of married and unmarried expectant mothers towards HIV and AIDS Voluntary Counselling and Testing

A two-tailed test of independence with an alpha level of 0.05 was employed to test the hypothesis. From Table 19, the t-test shows a significant difference in the attitude of married and unmarried expectant mothers towards HIV and AIDS VCT [$t(38) = 2.345, p < .05$]. The conclusion is that marital status of women has influence on attitude towards HIV and AIDS VCT.

Table 19

Married and unmarried expectant mothers' attitude towards HIV and AIDS

VCT

Item	Status	Mean	SD	t	df	sig
Attitude to HIV and	Married	2.6237	.27544			
AIDS VCT of married				2.345	38	.024
and unmarried	Unmarried	2.3704	.34134			
expectant mothers						

Source: Fieldwork, 2006

Discussion

The findings that there was a significant difference between married and unmarried expectant mother's attitude towards HIV and AIDS VCT appear not to be surprising. Only 2 (5%) of the expectant mothers were prepared to disclose HIV positive status to their partners (Table 10). In addition, the high mean score for married women on the attitude item, "I will be emotionally disturbed if I am tested HIV- positive underscores the fear (Table 16). To disclose one's HIV – positive status to a husband seems to be one of the most difficult things to face a couple. The fear of physical violence and psychological distress cannot be underestimated. The emotional stress of married women is supported by the findings of Termmerman (1991) who reported that women are chased away from their homes or replaced by another wife or beaten up. Gregorich (1998) discloses that high levels of marital break- up follow after VCT. Kamenga (1991) also reports of husband's family chasing the women from the house and accusing them

of infidelity. It is for the fear of lack of emotional support from partners and perhaps the entire public that will discourage married women to disclose their HIV – positive status. By their marital status, public ridicule and stigma could make them emotionally stressful.

Hypothesis 2

There is no significant difference in the level of education of expectant mothers and attitude towards HIV and AIDS Voluntary Counselling and Testing.

The one-way analysis of variance was used for the analysis. As indicated in Table 20, the test result was not significant, [F (3, 36) = 1.705, p=.183] at alpha level of 0.05. This is an indication that the level of education of expectant mothers does not determine their attitude towards HIV and AIDS VCT.

Table 20

One –way analysis of variance of expectant mothers’ level of education and attitude towards HIV and AIDS test

Variable	Sum of squares	df	Mean square	f	sig
Between Groups	.413	3	.138	1.705	.183
Within Groups	2.909	36	.081		
Total	3.322	39			

Source: Fieldwork, 2006

Discussion

The finding that there was no relationship between expectant mothers level of education and attitude towards HIV and AIDS VCT confirms the findings of Ekanem and Gbadegesin (2004), that educational level of mothers does not affect willingness to undergo HIV testing. It is important to suggest that access to HIV and AIDS VCT information play an important role in shaping attitudes. The direct experience that expectant mothers had with health officials during antenatal periods most probably influenced the attitude of expectant mothers. The reason for this could be that VCT services were integrated into the existing antenatal services at the health facility. At the clinic, face-to-face group health education in both English Language and the local language (Fante) for expectant mothers present for antenatal services. Such a forum addressed general issues related to HIV and AIDS, Prevention of Mother-to- Child Transmission and the benefits of VCT. Besides, the influence of the media, especially the electronic media such as television and radio cannot be underestimated. For example what expectant mothers heard and observed had reinforcing consequences for attitudinal change notwithstanding their levels of education. Expectant mothers might have found the face –to-face interactions with the health officials a useful experience. The satisfaction they derived from the experience could have motivated them positively notwithstanding their educational background. According to Thorndike (1932) and Skinner (1938), behaviour becomes more or less probable depending on its consequences. It presupposes that where expectant mothers felt they had benefited from participating in HIV and AIDS VCT, the likelihood was that in future they were going to patronize in the programme. On the other hand, where

there was mistrust and suspicions of discrimination, stigmatization by service providers' attitude will be negative.

The attitude of the healthcare staff cannot be overlooked as a factor that could explain the formation of attitudes. If health care providers were well trained in the job and were skillful in their interactions, they could easily influence the attitude of their clients.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

In this chapter, the summary, conclusions and recommendations of the study are highlighted. The summary focuses on the objectives of study, the methodology and the main findings of the study. The conclusions of the findings of the study and recommendations will also be presented in the chapter. Finally, areas for further research are suggested.

Summary

The main objective of the study was to investigate the attitude, perception and psychosocial barriers to HIV and AIDS VCT of expectant mothers at the ante-natal clinic in Cape Coast metropolis.

The study design was a case study. In all 40 expectant mothers were selected for the study through convenience and purposive sampling techniques. An interview schedule made up of both open-ended and close –ended items were constructed to elicit views from the respondents. The data on the various research questions were analyzed, using frequencies and percentages, while the t – test and one –way analysis of variance were used to test the hypotheses.

The following are the main results of the study:

1. Expectant mothers have a good understanding of HIV and AIDS, means of transmission and the preventive methods. They have a high level of knowledge about HIV and AIDS VCT.
2. Expectant mothers do not trust the confidentiality of the health workers. The fear to disclose HIV – positive results to partners and emotional distress are some major psycho-social barriers to HIV and AIDS VCT.
3. Expectant mothers have a positive attitude towards HIV and AIDS VCT.
4. Expectant mothers have a positive perception towards HIV and AIDS VCT.
5. The hypothesis that there is no significant difference between married and unmarried expectant mothers' attitude towards HIV and AIDS VCT was rejected. Marital status could influence attitude towards HIV and AIDS VCT.
6. The hypothesis that there is no significant difference between level of education of expectant mothers and attitude towards HIV and AIDS VCT failed to be rejected. Differences in the level of education of expectant mothers have no influence on attitude towards HIV and AIDS VCT.

Conclusions

From the study, expectant mothers are well informed about HIV and AIDS VCT. Psychosocial factors like, mistrust for health workers, fear to disclose HIV positive test results to partners and emotional distress are barriers to HIV and AIDS VCT. Expectant mothers have positive attitudes and perception towards HIV and AIDS VCT. The marital status of expectant mothers determines attitudes

towards HIV and AIDS VCT, and the level of education of expectant mothers does not determine the attitude of expectant mothers towards HIV and AIDS VCT.

Recommendations

Based on the findings of the study, the following recommendations are made:

1. Education of expectant mothers on HIV and AIDS VCT at antenatal clinics should be sustained by the Ministry of Health and other stakeholders.
2. Psychological and social barriers to HIV and AIDS VCT should be tackled vigorously by the Health Ministry. Health – care workers should be properly trained in basic counselling and communicative skills to build a trusting relationship with their clients. Psychological and social support like, love, care, understanding and acceptance from the public, health-care professionals and partners should be part of any HIV and AIDS VCT programme.
3. Marital status influences attitudes towards HIV and AIDS VCT. For this reason, the Ministry of Health and other stakeholders should make the effort to encourage couple counselling for HIV and AIDS VCT.
4. Public education campaign by health-care professionals on VCT at antenatal clinics should be maintained. Such sustained programmes are likely to clear some of the social and psychological barriers and perceptions about the usefulness of VCT.

Areas for Further Research

Looking at the present scope of the study, it is necessary that future research work should extend beyond expectant mothers to involve partners in the relationship. Ante-natal clinics in other parts of the country should also be considered in any future study.

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APPENDIX A
UNIVERSITY OF CAPE COAST
DEPARTMENT OF EDUCATIONAL FOUNDATIONS
INTERVIEW SCHEDULE

Dear Respondent,

Your help is needed in a case study I am conducting to find out the attitude, perception and psychosocial barriers to HIV/AIDS Voluntary Counselling and Testing (VCT) among expectant mothers.

I would be very grateful if you would respond to the interview schedule as objectively as possible for the success of the study. All information given would be treated as confidential and would only be used for the purpose of the thesis and to help improve VCT for expectant mothers.
Thank you.

SECTION A
DEMOGRAPHIC DATA

(1) How old are you?

- 1. 14 – 17 years ()
- 2. 18 – 21 years ()
- 3. 22 - 25 years ()
- 4. 26 years and above ()

(2) What is your marital status?

- 1. Married ()
- 2. Not Married ()

(3) What is your highest educational qualification?

- 1. No formal Education ()
- 2. Middle/ Basic School Education ()
- 3. Secondary / Vocational / Commercial School Education ()
- 4. Tertiary Education ()

(4) Occupation

- 1. Teaching ()
- 2. Trading ()
- 3. Nursing ()
- 4. Farming ()
- 5. Sewing ()
- 6. Hair dressing ()
- 99. Any other -----

SECTION B

KNOWLEDGE ON HIV/AIDS VOLUNTARY COUNSELLING AND TESTING

(5) Have you ever heard of the disease called AIDS?

1. Yes ()

2. No ()

(6) If your answer to question (5) is Yes, where did you obtain the information on HIV/AIDS? -----

(7) Do you know where you can go for the HIV test?

1. Yes ()

2. No ()

(8) If your answer to Question (7) is Yes, where can you go for the HIV test?

(9) State any two ways by which HIV/AIDS can be transmitted.

1. -----

2. -----

(10) If you are HIV positive and you become pregnant, can you transmit it to the unborn child through delivery?

1. Yes ()

2. No ()

(11) Can you give the AIDS virus to your baby through breastfeeding?

1. Yes ()

2. No ()

(12) Is there anything that you can do to avoid getting the virus that causes AIDS?

1. Yes ()

2. No ()

(13) If your answer to Question (12) is YES, then state any two HIV/AIDS prevention measures that you are aware of.

1. -----

2. -----

(14) Have you heard about HIV/AIDS Voluntary Counselling and Testing?

1. Yes ()

2. No ()

(15) If your answer to Question (14) is Yes, state whom you first heard of HIV/AIDS Voluntary Counselling and Testing from.

(16) Should HIV counselling be offered before taking an HIV test?

1. Yes ()

2. No ()

(17) Should people who do not want pre-test counselling be prevented from taking HIV test?

1. Yes ()

2. No ()

SECTION C

ATTITUDE STATEMENTS ON HIV and AIDS VOLUNTARY

COUNSELLING AND TESTING.

Please state whether you Agree, Uncertain or Disagree with the following attitude statements

Statement	Agree	Uncertain	Disagree
(18) I am afraid of testing HIV positive.			
(19) I trust the confidentiality of the medical personnel.			
(20) The location of the counselling office will influence my decision to go for VCT.			
(21) No matter the distance I will go to the service centre.			
(22) Fear of discrimination will prevent me from going for VCT.			
(23) I am afraid to disclose my HIV positive status.			
(24) I will be emotionally disturbed if I am tested HIV positive.			
(25) I will like to be tested for HIV at my own community hospital.			
(26) I will change my sexual behaviour if I am tested HIV positive.			
(27) I will change my sexual behaviour if I am tested HIV negative.			
(28) I can get HIV.			
(29) I consider HIV/AIDS VCT as beneficial			
(30) I will like to be tested for HIV at a hospital outside my own community.			

(31) Have you ever been tested for the AIDS virus?

1. Yes ()

2. No ()

(32) If your answer to Question (30) is YES, which of the following is applicable to

your answer?

1. Did you ask for the HIV/AIDS test? ()

2. Were you persuaded to go for the HIV/AIDS test? ()

3. Was it a requirement to go for the HIV/AIDS test? ()

(33) If your answer to Question (30) is NO, would you want to be tested?

1. Yes ()

2. No ()

(34) Explain your answer to Question (32).

(35) If you are found to be HIV positive, which of the following people will you like to disclose the information to?

1. Sexual partner ()

2. Friend(s) ()

3. Sibling(s) ()

4. Parent(s) ()

5. Pastor ()

6. Any other.....

(36) What will discourage you to go for HIV Voluntary Counselling and Testing?

(37) What will encourage you to go for HIV Voluntary Counselling and Testing?

(38) If you are tested HIV positive, will you have any fear that maternity staff might refuse to assist you when you deliver your baby?

- 1. Yes ()
- 2. No ()

(39) Would you like to be tested for HIV at your own community clinic/hospital?

- 1. Yes ()
- 2. No ()

(40) Are you aware of the HIV and AIDS VCT services in the municipality?

- 1. Yes ()
- 2. No ()

SECTION D
PERCEPTION STATEMENTS ON HIV/AIDS VOLUNTARY
COUNSELLING AND TESTING

Please state whether you Agree, Uncertain or Disagree with the following
perception statements

Statement	Agree	Uncertain	Disagree
(41) HIV and AIDS VCT is successful in helping reduce risk behaviours.			
(42) Fear of discrimination can influence people's decision to go for VCT.			
(43) HIV and AIDS VCT is an effective primary prevention for uninfected people.			
(44) HIV and AIDS VCT benefits both HIV-negative and HIV-positive clients.			
(45) Fear of breach of confidentiality by health care providers (e.g. nurses, doctors) prevents clients from participating in HIV and AIDS VCT.			
(46) Fear to disclose an HIV- positive status to sex partners prevents people from seeking HIV/AIDS VCT.			
(47) Misconception about AIDS can reduce one's willingness to seek for VCT.			
(48) Low risk perception may influence people's decision to go for VCT.			
(49) HIV and AIDS VCT programme are only intended for diagnostic purpose.			
(50) Every pregnant mother needs to go for HIV test before delivery.			

(51) What will you do to encourage more expectant mothers to go for VCT at the clinic

THANK YOU

UNIVERSITY OF CAPE COAST

ATTITUDE, PERCEPTION AND PSYCHO-SOCIAL BARRIERS TO HIV
AND AIDS VOLUNTARY COUNSELLING AND TESTING:
A CASE STUDY OF EXPECTANT MOTHERS IN THE CAPE COAST
METROPOLIS

BY

JANE ODUROWAAH APEATU

This thesis submitted to the Department of Educational Foundations of the Faculty of Education, University of Cape Coast, Ghana, in partial fulfillment of the requirements for award of Master of Philosophy Degree in Guidance and Counselling.

JUNE 2009

DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this University or elsewhere.

Candidate's Signature: Date:

Candidate's Name: Jane Odurowaa Apeatu

Supervisors' Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature: Date:

Name: Dr. Frederick. Ocansey

Co-Supervisor's Signature: Date:

Name: Mr. Godwin Awabil

ABSTRACT

The purpose of the study was to examine the attitude, perception and psychosocial barriers to Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) Voluntary Counselling and Testing (VCT) of expectant mothers. The research design was a case study. Forty expectant mothers were selected from antenatal clinic in the Cape Coast metropolis through convenience and purposive sampling method. A 51-item interview schedule made up of both open-ended and close-ended items were used for the data collection. Descriptive statistics were used in analyzing the research questions while the t-test of independence and one-way analysis of variance at alpha level of .05 were used in analyzing the hypotheses.

The study revealed that expectant mothers had a high level of knowledge about HIV and AIDS VCT. Some of the psycho-social barriers that expectant mothers mentioned included: lack of confidentiality among the health staff, fear to disclose HIV-positive status to husband and emotional stress to be experienced. Expectant mothers also had a positive attitude and perception towards HIV and AIDS VCT. Finally, there was also a significant difference between married and unmarried expectant mothers' attitudes toward HIV and AIDS VCT; and it was found that expectant mothers' level of education does not influence their attitudes toward HIV and AIDS VCT

The study recommended that education at the antenatal clinics should be sustained by the health authorities. Health-care workers should receive more training in basic counselling skills to build a trusting relationship with their clients. The positive attitude and perception of expectant mothers towards HIV and AIDS VCT should encourage health care providers to intensify public education campaigns to encourage more expectant mothers to access the facility.

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DEDICATION

This work is dedicated to my parents of blessed memory.

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