

THE RELATIONSHIP BETWEEN PERCEIVED QUALITY OF PROVIDER INITIATED
TESTING AND COUNSELLING SERVICE AND DISCLOSURE AMONG URBAN
ANTENATAL MOTHERS AGED 18 – 40 YEARS IN MAKONI DISTRICT

by

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ABSTRACT

Antenatal mothers on the PMTCT programmes appear to be having problems in disclosing their HIV status. The purpose of this descriptive correlational study was to examine the relationship between perceived quality of PITC service and disclosure among urban antenatal mothers aged 18 to 40 years in Makoni district. King's model of Goal Attainment was used to guide this study. A sample of 80 participants was recruited using the convenience sampling method. Data were collected using face to face interviews and structured questionnaires developed by the investigator. The research instruments comprised the Demographic Data Questionnaire, The Disclosure Questionnaire and the Perceived Quality of PITC Services Questionnaire. Data analysis was done using the SPSS computer software package. The results showed that the partial disclosure pattern was the most common for 65 (81.3%) of the participants. The level of disclosure was generally low. A total of 71 (88.8%) scored low level disclosure scores of between 1 and 10 out of 14. The perceived quality of PITC services was average for 43 (53.8%) of the sample. Pearson correlation analysis showed a statistically non significant and weak person correlation coefficient ($r = .193$). Although not statistically significant, the correlation analysis showed a weak linear relationship and therefore confirmed that to some extent, perceived quality of PITC services have a linear association with level of disclosure. Therefore, as perceived quality of PITC increases. Level of disclosure also increases. Existing PITC services need to be strengthened to increase the level of disclosure. In addition, further research is necessary to identify more causes for the low levels of disclosure.

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CHAPTER 1

BACKGROUND AND ORGANISING FRAMEWORK

Background to the Study

Living with Human Immunodeficiency (HIV) infection in the community may subject a person to possible stigmatization by those who do not have the illness. Coping with stigma involves a variety of strategies including decisions about whether to disclose the condition and suffer further stigma or attempt to conceal the condition and pretend to be normal (Joachim and Acorn, 2000). The newly adopted Provider Initiated Testing and Counselling (PITC) approach is likely to persuade more people know their HIV status. If the PITC process is not administered well, a lot more people will know their HIV status but fail to disclose hence fail to cope.

In contrast to client- initiated HIV testing and counselling (also called Voluntary Counseling and Testing (VCT), PITC is initiated by the health care providers as part of the patient's routine clinical management (International Council of Nurses, 2009). PITC presents an opportunity for early diagnosis of HIV in health care facilities and facilitates access to prevention, treatment, care and support services. A Ugandan study bears testimony to this assertion and reported that 50% of adults offered HIV testing at a hospital was HIV positive and care treatment and support were provided immediately. A total of 83 % were unaware of their HIV status, even though 88 % had been to a health unit in the previous six months (International Council of Nurses, 2009). In 2005, Zimbabwe also adopted the PITC strategy which is hoped to yield a wide variety of positive desired outcomes.

Zimbabwe aims to increase the percentage of the Zimbabwean population of people who know their HIV status from 20 % in December 2007 to 85 % by 2010 (MOHCW, 2008). The introduction of PITC and Primary Care Counsellors (PCs) contributed to improvements in

HIV testing uptake. The percentage of ANC attendees tested for HIV increased from 54% in 2004 / 2005 to 72% in 2006 / 2007. As a result, more women know their HIV status, resulting in easier access to antiretroviral therapy (ARV) prophylaxis to prevent mother-to-child-transmission of HIV (EGPAF, 2007).

Similar trends of initially low uptakes of HIV counselling and testing services have been reported in surveys conducted in Sub-Saharan Africa. A median of 12 % of men and 10% of women are reported to have been tested for HIV in the region (ICN, 2009). As a result, recent recommendations have shifted to PITC, which is a proactive approach where the health care provider initiates the HIV testing and counselling (ICN, 2009). However, there are unproven concerns that provider initiated HIV testing and counselling could deter clients from accessing health services, due to fears of stigma and discrimination (ICN, 2009; Zimbabwe Millennium Development Goals, 2004). Nevertheless, in the developed world, a number of European countries have introduced provider – initiated HIV testing and counselling in the context of prenatal care. Provider Initiated Testing and Counselling appears to have resulted in considerable increases in testing uptake in the United Kingdom, Hong Kong, Singapore, Norway and Canada, where the majority of clients agreed to be tested (ICN, 2009).

However, the uptake and adherence to Prevention to Mother to Child Transmission of HIV (PMTCT) programme is difficult for women whose partners are unaware of their HIV status. It has been well documented that in Africa women lack power to make independent decisions with regards to their safety and their children's health. It is therefore difficult for HIV positive women to seek social and medical support from care and support programmes for themselves and their infants as these programs demand disclosure of their HIV status to their partners (Kassaye, Lingerh, Dejene, 2005). Since disclosure is imperative to ensure support, the PITC service should be a strong empowering tool that can assist clients to

disclose their HIV status. With this increase in PITC uptake as cited above, the investigator found it worthy to examine the relationship between perceived quality of PITC services and disclosure of the HIV positive results of pregnant women in the PMTCT programmes.

Problem Statement

Although the PMTCT programme has enjoyed tremendous success in Zimbabwe, mothers living with HIV still fail to disclose their status to their partners, relatives and friends (EGPAF, 2007). Not much research has been done to check whether introduction of PITC is enabling disclosure.

Levels of disclosure and partner involvement after tests are variable and generally low. In Zimbabwe, only 30% of HIV positive pregnant women reportedly disclose to their partners after they have received their HIV results (EGPAF, 2007). Preliminary investigations on non disclosure of HIV status among 21 women tested for HIV in the PMTCT programme at Chinhoyi Provincial Hospital showed that only 28,6% had disclosed their HIV status (Mucheto, Nyamayaro, Jones, 2009). In the year 2009 a similar pilot study in Makonde district revealed that 34 % of respondents did not disclose their HIV status to their husbands. Currently there is no official data capturing tool for disclosure of HIV results by our clients in the health institutions except for a section on the antenatal card that asks for disclosure to partner and is practically hardly documented. This shows that this area of research is not getting enough attention yet it is a very important area in PMTCT programs.

Studies in sub-Saharan Africa have found disclosure rates to sexual partners ranging from 17 to 86 percent. It has been noted that a woman might decide to tell her husband that she has tested positive for HIV soon after her post test counselling and it may take much longer to tell friends and family or she may decide not to do so at all. She might wait years before telling her children (Maman, 2003). In Tanzania one study found that only 22 % of

women had disclosed after 2 months, and 40 % had disclosed their status after 4 years (Obermeyer & Osborn, 2007). In Burkinafaso, only 18 % of women disclosed to their partners. In Zaire, only 2 % of women brought their partners for testing. In a United States study of gay men, 41 % had not disclosed their status to their partners (Obermeyer & Osborn, 2007).

Non disclosure of HIV status is a barrier towards prevention and treatment strategies in PMTCT programmes. HIV infection is one of the most health problems for pregnant mothers and newborns in many developing countries (ZMOHCW, 2006). Antenatal care is the most common entry point for women into the PMTCT programme, and most women only get to know their HIV status during ANC. There is need for health workers to offer PITC services to every woman before pregnancy, during pregnancy and post delivery. Pregnant women need to disclose their HIV results early.

More available regional studies have documented women experiences of disclosure to their partners and reported barriers to disclosure, such as women's fear related to stigmatization, family rejection, breach of confidentiality or accusations of infidelity (Brou et al., 2007). A study in Abidjan on ‘ when do HIV infected women disclose their HIV status to their male partners and why?’ revealed that the two year follow up, disclosure to the partner was reported by 96,7 % of the HIV negative women compared to 46, 2 % of HIV positive women. The proportion of male partners tested for HIV was 23, 1 % among HIV positive women. Partners of HIV positive women who were informed of their wives' HIV status were more likely to undertake HIV testing than those not informed (Brou et al., 2007).

A Northern Thailand journal report on the incidence of HIV –infection and effects of Clinic Based Counselling on HIV preventive behaviours among married women revealed that

only 24 % of husbands of tested women were also tested during a 12 – month study period (Xu, et al, 2002).

Another study in Ethiopia revealed a disclosure rate of 69 %. A considerable proportion of women living with HIV/AIDS did not disclose their sero-status to their sexual partners and are less likely to use condoms. Most women in Ethiopia have little power to decide on when, how and with whom to have sexual relationship. These decisions are left to men. These women's sexual partners who fail to disclose their HIV positive status continue to be at risk for HIV transmission (Kassaye, Lingerh & Dejene, 2005). In a 2007.

There is limited literature on the global HIV disclosure rates. A United Nations General Assembly report on HIV and AIDS simply reported a 'poor' disclosure of HIV status was reported as a challenge in PMTCT programme.

The present study postulated that the quality of PITC services might have an impact on disclosure. Literature on the quality of PITC services locally, regionally and globally appears to be limited probably due to the fact that the concept of PITC is a recent one. However, there is some evidence that uptake of PITC might have an impact on disclosure. Most authors concur that important issues in interspousal support are those of disclosure to the other partner. It therefore becomes very important for antenatal mothers to disclose early to their partners as non disclosure comes with negative outcomes. Furthermore nondisclosure of HIV positive status to male partners and significant others by pregnant women can result in poor adherence to PMTCT program. Non-disclosure will in turn limit access to HIV treatment for the mother and the reduction of risk of HIV transmission to the unborn baby (Mucedzi et al., 2008).

Disclosing one's HIV results to a sexual partner is an important factor in HIV and AIDS prevention interventions. Disclosure enables for improved access to prevention and

treatment programs, provides increased opportunities for risk reduction and helps in planning for the future (Kassaye, Lingerh, & Dejene, 2005; The Ontario HIV Network, 2009).

Non-disclosure of HIV status among pregnant women might be leading to low HIV testing rate among male partners of women on the PMTCT programme in Zimbabwe (Maldonado, & Shetty, 2007). Zimbabwe has one of the greatest HIV burden in the world, with an average antenatal HIV prevalence rate of 16,1 % (ZMOHCW, 2009).

In Manicaland province, the number of male partners tested for HIV is very low. Nyanga District Hospital reported 3 820 pregnant women tested for the year 2008, and only 5,7 % male partners were tested (MTCT statistics, Nyanga District, 2008). During the first quarter of 2009, Makoni District reported 1 328 pregnant women tested for HIV with only 10,4 % male partners tested (ZMOHCW, 2009).

ZMOHCW (2007) reported 15589 deliveries by HIV positive mothers. Only 2782 infants were tested at 18 months of age, and 811 out of the total infants were HIV positive. Only 69 % of the total number of mothers took Nevirapine, and only 64% infants received Nevirapine prophylaxis. A 100% failure of Nevirapine uptake and also a low turnout of infants for HIV testing at 18 months may suggest problems of disclosure of HIV positive results by the mothers to the partner, in-laws, friends, and other confidants. In order to better support women in this whole process of disclosure, a closer analysis of the quality of counselling they receive may assist.

In this study the investigator, sought to establish the how the PITC programme might be influencing pregnant women's disclosure of their HIV results. Literature on evaluations of the impact of the PITC services is very limited.

Purpose of the Study

The purpose of this study is to examine the relationship between Perceived Quality of Providers Initiated Testing and Counselling service and disclosure among HIV positive urban antenatal mothers aged 18 to 40 years in Makoni district .

Theoretical Framework

Burns and Grove (1993) define a framework as an abstract logical structure of meaning that guide development of the study and enables the researcher to link findings to nursing's body of knowledge.

Kings systems model, Goal Attainment Theory has been identified as ideal for this study because of its applicability. The model deals with interaction between the nurse and the patient, which results in reduced anxiety. The four central concepts in the model are person, environment, health and nursing. It is a Theory of Goal Attainment, which states that client goals are met through the transaction between nurse and client. The model deals with interaction between nurse and the patient which results in meeting the patient's goals. The essence of goal attainment theory is that the nurse and the patient work together to define and reach goals that they set together. The patient and the nurse each perceive, judge, and act and react to each other. At the end of this process of communication and perceiving, if a goal has been set a transaction is said to have occurred. For the purposes of this study, transaction is reflected through the pregnant woman's perceived quality of the PITC services.

The goal in this study is the disclosure of HIV positive results to significant others, which may include, partner, parents, siblings, children, neighbours, friends or even the public .Public disclosure is the highest level of disclosure that is expected .Since disclosure is a process, increamental disclosure occurs gradually as the client gets more empowered during

repeated interactions with the nurse . After the transaction has occurred and the goal has been set ,King believes that it is important for good documentation to be practiced by the nurse .It also helps to provide a way to determine if the goal is achieved and this assessment of whether or not the goal has been achieved plays an important end stage in King's goal attainment theory .

Person

The person is viewed as an open system interacting with the environment exchanging energy and information (King 1981). In this study, person refers to the HIV positive antenatal mother. The person is viewed as a unified, complex, whole self who perceives, thinks, desires, imagines, decides, identifies goals and selects means to achieve them. The importance of participation in decision making is highlighted and choices, alternatives and outcomes of nursing care are noted (Kozier, 1995).

Nursing

Nursing is viewed as a helping profession that provides a service to meet a social need (King, 1981). It is a process of human interaction between the nurse and the client. Each perceives the other, and through communication, both set goals and explore means to achieve them. The overall goal of nursing is to help people attain, maintain and restore health (King, 1981). The strategies used by nurses include teaching, supporting, counselling, guiding and motivating (Fitzpatrick & Whall, 1996). This interactive process is an essential element of nursing.

Health

Health is viewed as continuous adjustment to stressors in the external and internal environment. Health is the ability to function in social roles (King, 1981).The concept of health can be applied across three interacting systems, which are personal, interpersonal and

social. The interpersonal systems are composed of the concepts of human interactions, communication, transactions role and stress. A basic assumption is that patients and nurses communicate mutually, set goals and take action to attain goals. Through transactions patients achieve valued goals. Transactions are goal oriented behaviours (King, 1981). The concepts of interaction, transaction and goal attainment were found most suitable to guide the study.

When the patient is knowledgeable, she takes action /decides to disclose and prepares self for the consequences and benefits from the advantages of disclosure. The goal of nursing is to promote disclosure of HIV positive status. When the partner is involved, he is most likely to be supportive in the PMTCT programme, that is, being cooperative on condom use and supporting chosen feeding option (protecting her from threats, insults, coming from society and in laws or extended family). When the results are known by the partner and the patient receives positive reactions from the partner, the patient achieves health. When the client discloses to more people or even publicly, their social support network expands further (Burler & Kimberly, 2000 in Greene, Derlega, Yep & Petronio, 2003). The perception, communication, the self and the role concepts are used to understand concerns of the client.

Perception is for disclosure outcome and is strongly related to individual experiences of disclosure of sensitive issues to partner in previous different situations . Communication is multidimensional due to her multiple roles as wife, daughter in law and woman in community. The self is the most unsettling worrying for the woman if she perceives she is being viewed as different from other pregnant women. She has to deal with self first then others.

King emphasised the need for nurses to assess the patient's perceptions through communication and interaction. Agreeing on a goal (getting tested then disclosing results) and accomplishing the goal is central in the interaction process. If client gives a verbal agreement

to plan of action but does not value the plan or see it as pertinent to her well being, her baby, infant or partner, one will not disclose. There are also issues of stress and time which may apply to the problematic access to more information on benefits of disclosure and this can only be accessed through repeated interaction.

The concepts in King's Theory help health care providers to be able to communicate and interact at critical periods when pregnant women access antenatal – prenatal and postnatal care. Figure 1 overleaf depicts the conceptual views on how the model guided the present study.

Theoretical framework

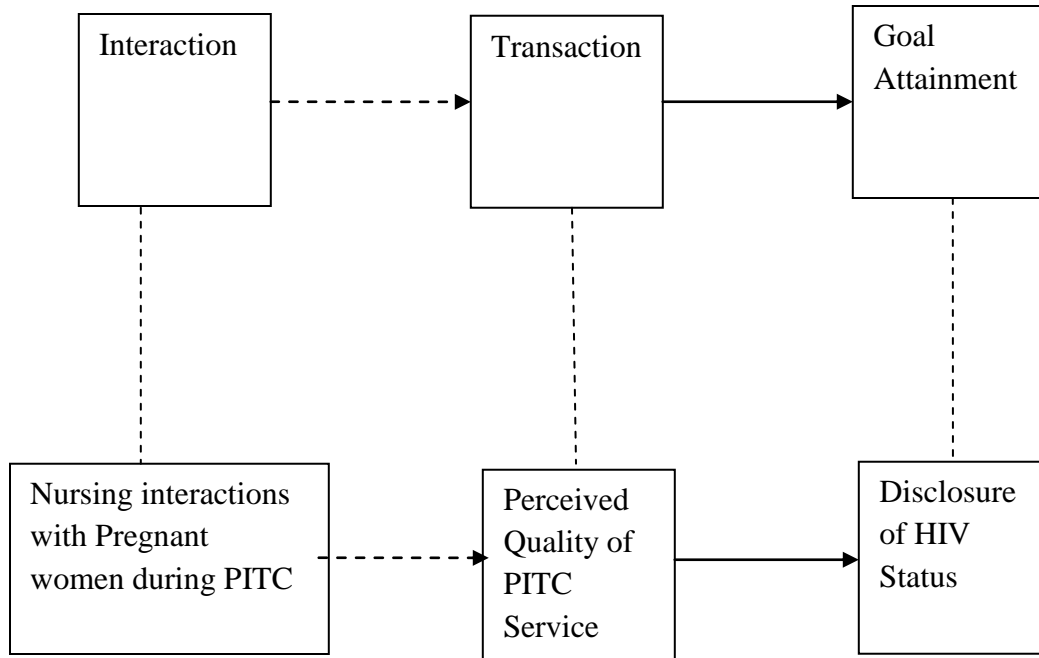


Figure 1: King's Interaction Model: Adopted and adapted from King's theory of goal attainment-interpersonal systems (1981).

Conceptual Definition of Terms

Perceptions: It is the personal view of events (Potter & Perry, 1997) .

Disclosure: Sharing of HIV status with others (WHO, 2008). In this study disclosure is the act of informing anyone the HIV results.

Non-disclosure: Not revealing the HIV status to anyone .

Disclosure patterns: The different characteristics of women which differ on time frame when they disclose after they obtain the results, how they disclose the results and reasons for disclosure (Sowell,Seals,Phillips and Julious, 2000) .

Transaction: A process in which human beings communicate with environment to achieve goals that are valued (Fitzpatrick & Whall, 1996).

Interaction: The process of perception and communication between person and person, represented by verbal and non verbal behaviours that are goal directed (King 1981, in Fitz Patrick & Whall, 1996) .

Quality of care: The degree to which health services for individual and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge (Institute of Medicine Committee, 2001, in Clemen-stone, McGuire & Eigsti, 2002) .

Perceived quality: The customer's perception of the overall quality or superiority of a product or service with respect to its intended purpose , relative to alternatives (Aaker, 2010)

Perceived Quality of PITC service: The degree to which pregnant women rate the superiority of the PITC service.

Research Objectives

1. To determine the level and disclosure patterns of HIV status among HIV positive antenatal mothers following PITC in Makoni Urban Area
2. To assess the level of perceived quality of PITC service among HIV positive antenatal mothers in Makoni Urban Area
3. To examine the relationship between perceived quality of PITC service and level of disclosure among HIV positive antenatal mothers in Makoni Urban Area

Research Questions

1. What are the level and disclosure patterns of HIV status among HIV positive antenatal mothers following PITC in Makoni Urban Area?
2. What is the level of perceived quality of PITC among HIV positive antenatal mothers in Makoni Urban Area?
3. What is the relationship between perceived quality of PITC service and level of disclosure among HIV positive antenatal mothers in Makoni Urban Area?

Hypothesis

There is a positive relationship between perceived quality of PITC service and level of disclosure among HIV positive antenatal women aged 18-40 years.

Significance of the Study To Nursing

The knowledge of clients' perceptions is critical in the design of any programme. The study findings might therefore assist nursing in the design of appropriate programmes relating to maternal and child health. Disclosure issues disturb feeding options of the mother, may result in domestic violence, resulting from HIV positive results of mother. Women and children remain vulnerable to health related problems for example, malnutrition, and stress due to lack of paternal support. The study findings would assist in identifying gaps and areas

of improvement in PITC to generate solutions that would empower HIV positive pregnant women to disclose their HIV status. Findings would assist health workers identify clients in need of assistance in disclosure of HIV results and use appropriate counselling strategies for different individuals.

The study results would provide information critical to shaping local strategies in response to HIV epidemic among women and infants. Development and reinforcement of linkages with existing programmes for treatment, care, and support services to promote long – term care of women who are HIV infected and their families would be necessitated through the present study results.

The findings may add knowledge that can strengthen the national PMTCT programme goals. Implementation of the specific psychosocial counselling and support for HIV infected women at the end of pregnancy, the period of early weaning and the resumption of sexual activity are important to help women to disclose their HIV status. This disclosure is an important step that could contribute to the educational sessions on postnatal and sexual HIV transmission prevention.

Nursing education will benefit from the present study results. Nurse educators may make reference to the present study results in instructing nursing students, student midwives and community health nurses

New areas requiring further research may be exposed through the present study, The study therefore becomes significant to nursing research. Ultimately, from the knowledge generated by this study, nursing may benefit through an enriched body of scientific knowledge.

CHAPTER 2

LITERATURE REVIEW

Introduction

This chapter deals with literature review, which aims at helping the researcher to acquire supportive and relevant information about the problem under study. Literature from different authors and researchers was reviewed. Burns and Grove (1995) defines literature review as an analysis and synthesis of research sources to generate a picture of what is known about a particular situation and the knowledge gaps that exist in the situation. In this study, the literature review will focus on perceived quality of PITC among pregnant women attending antenatal clinic as the independent variable, disclosure of HIV positive results as the dependant variable and the relationship between perceived quality of PITC and disclosure among ANC mothers. A review of research projects in which King's model has been used effectively was also included.

Disclosure of HIV Status among Pregnant Women

Currently little is known about how people decide when to disclose and when to be silent as well as how they cope with the results of their decisions. Although stigma and disclosing are dealt with in the literature, many of the sources are more than 20 years old. Numerous societal changes have occurred causing the authors to question validity of the literature in present day society. This investigator therefore found it necessary to establish disclosure levels and patterns among HIV positive pregnant women. It is through interaction between the midwife and the pregnant women that the pregnant women an HIV positive results and no visible signs of illness may seek guidance about the advisability of disclosing or not disclosing. The midwife's knowledge of possible outcomes of disclosing or not disclosing

as well as how the decisions are made can be useful in assisting individuals to make informed decisions.

Importantly, women in antenatal settings appear to be least likely of any population to choose to disclose their status to partners, which likely relates to fear of stigma, discrimination and violence. Although the importance of disclosure of HIV status to partners and relatives is clear, pregnant women's risk of adverse outcomes from disclosure occurs in many settings and disproportionately affects women (Gruskin, Ahmed & Ferguson, 2008).

The decision about whether or not to disclose one's HIV status to others is a deeply personal one. Disclosure is not simply about conveying medical information but is a process that may be full of hesitation and retractions. When disclosure does take place, it may be not to the partner but to another member of the family or to a friend (Obermeyer & Osborn, 2007). Research on woman's HIV status disclosure has examined a number of individual-level variables as possible explanations for the differential rates of disclosure (Rice, comulada, Green, Arnold, Rotheram-Borus, 2009). Time of disclosure since diagnosis has been examined. Women who have lived with the HIV infection are more likely to disclose and women at more advanced stages of disease disclose to obtain support (Serovich et al., 2008).

Despite some barriers to disclosure most women in the United States have disclosed their HIV status to someone in their social network. The rates of disclosure vary widely across types of relationships ,reflecting the weight of the decision and how selective women are about to whom they will disclose (Kalichman et al., 2003, Serovich et al., 2007). A study on 'Differential Disclosure Across Social Network Ties Among Women Living with HIV' revealed that spouses were the relationship to which women were most likely to have disclosed relative to all other relationships . Women are selective in their decision about to whom , how and when to disclose. This gives insights into why women chose to disclose to

certain members of society and not to others . (Rice, Colmulada, Green, Arnold, Rotheram-Borus, 2009).

The way each person experiences and copes with illness is reflected in the choice of whether, how and to whom to disclose (Norman ,Chopra, Kadiyala, 2005). In their study on HIV disclosure in South Africa; *Enabling the Gateway to Effective Response*, findings revealed that disclosure was experienced as a process and not a one- time event. It was also revealed that a temporal stage is occupied whereby an HIV positive person manages their disclosure. This ended up in selective disclosure for some whereby disclosure was only to those they felt would offer some support.

It was also discovered that tactics were also used utilised in order to find alternative ways for partners to find out, rather than having to directly disclose themselves .Some respondents tactfully took their partners to the clinic so that the health care provider disclosed the results to the partner ,that is , use of third party to disclose . Nearly all respondents had experienced a period of struggle before disclosure and had taken a period of time . The daily reality of keeping their status a secret was a very difficult process ,but they all eventually disclosed to at least one member of their family, a partner or a friend (Norman, Chopra, Kadiyala, 2005)

In a three year longitudinal experimental study on disclosure of HIV infection ; ‘How do women decide to tell by Sowell, Seals, Phillips and Julious, 2000, it was noted that disclosure of HIV infection is a difficult issue supporting the need for health education and counselling .The decision to disclose is selective and consists of several steps , including adjusting to the diagnosis , assessing one’s disclosure skills , deciding whom to tell, evaluating the recipient’s circumstances , anticipating the recipient’s reaction and having a motivation to

disclose (Kimberly et. al., 1995, in Sowell, Seals, Phillips and Julious, 2000). Only 12 out of a sample of 322 reported that they had not disclosed to anyone. A total of 234 had disclosed within the first week after being diagnosed with HIV infection .The women reported disclosing to family members and friends selectively. Some participants told people with whom they were living .Potential negative consequences of disclosure represented criteria on which they made the decision to disclose or delay disclosure (Sowell, Seals, Phillips and Julious, 2000) .

The Southern African AIDS Training Programme (SAFAIDS) encourages disclosure of HIV positive status and has gone to length coming up with different levels of disclosure namely full disclosure, partial disclosure and none disclosure, with full disclosure being rated the highest level of disclosure where one publicly reveals their HIV status to a person or organisation, or media. Partial disclosure means that only certain people are told with the intention that they will keep the information confidential, and non-disclosure means not revealing HIV status to anyone (SAFAIDS 2000).

On the contrary, in a commentary by Muula, Mfutso and Bengo (2005), entitled "When is public disclosure of HIV sero-positivity acceptable?", it has been debated that while public disclosure of HIV status has a place in the fight against HIV and AIDS, especially by resulting in behavioural change among people who know of an HIV infected person, such disclosure also has potential attendant harms. They have suggested that public disclosure should be accompanied by appropriate individual counselling and preparation of the community to deal with the situation and should have regard for cultural sensitivity after consideration of the risks and benefits to individuals, families and the community. Health

practitioners are being reminded that their main duty is to the best interest of the patient, the family and the community, in that order (Muula, Mfutso, Bengo, 2005).

Stigma is often correlated with disclosure. A study in eastern China found that intention to disclose increased when felt stigma decreased (The Ontario HIV Treatment Network, 2009). External factors that made disclosure possible included counselling, education, strength from faith and peer support groups.

In a United States study of men who have sex with men, methods of disclosure were identified which included point blank disclosure, stage setting, indirect disclosure, buffering or asking a third party to disclose and seeking similar or recreating community with others who are HIV positive (The Ontario HIV Treatment network, 2009).

A study done on the determinants and outcomes of disclosing HIV-seropositive status to sexual partners among women in Mettu and Gore towns, Illubabor Zone Southwest Ethiopia revealed that not all the participants disclosed their results. An overall of 69% of the women reported that they had shared their HIV test results with their partners. Among the women who did not disclose their HIV status 62.5% said that it was due to fear of partner's reaction (fear of abandonment, rejection and accusation of infidelity). But 75.9% of HIV positive women who disclosed their results reported positive partners' reaction. Most (81.3%) women who had prior discussion about HIV and HIV testing with their partners have disclosed their results ($P < 0.005$). Condom use was also found to be high among couples that disclosed their HIV status than those who did not do so ($P < 0.05$). This study indicates that the outcomes of disclosure are encouraging. The anticipated partner reactions and the reality discovered by the study were different. Therefore it is important to assure HIV positive women that benefits of disclosure outweigh the potential risks (Kassaye, Lingerh & Dejene, 2005).

Other authors have also reported their experiences from a study on Prevention of Mother-to-child HIV-1 Transmission in Dar EsSalaam, Tanzania. Only a small proportion (16.7 %) of the enrolled sero-positive women revealed their sero-status to their sexual partners. Most (83.4 %) of the sero-positive women who did not disclose their test results to their sex partners did not do so largely because of fear of stigmatization, divorce and violence. Interestingly, for those who disclosed their HIV sero-status to their partners, incidents of violence and breakage relationships were reported respectively by only 14.6 % and 8.3 % respondents. That most relationships continued suggest that factors other than HIV sero-positivity alone may contribute to adverse outcomes following disclosure of test results to a sex partner (Kilewo et al, 2001).

Noble (2009), expresses concerns over issues arising from disclosure and states that many women are concerned that if found to be HIV positive their diagnosis will not remain secret. HIV –related stigma and discrimination are found in all societies and can lead to social isolation and even loss of family support. Fear of such prejudice can cause some women to refuse HIV testing, or not to return for their test results. Often the greatest worry is the reaction of a male partner. Among pregnant women who do take a test and are found to be HIV positive, a high proportion (Sometimes up to 70 %) choose not to tell their partners. Most are afraid of violence or abandonment (Noble, 2009). In many societies it is common for men to blame their partners for being infected, even if they too have HIV. Disclosure to health workers and midwives can be hindered by concerns about confidentiality. An HIV positive, pregnant woman who has not disclosed to her partner, family or friends is generally less likely to accept preventive drugs and to practice unconventional methods of infant feeding, for fear of revealing that she is infected (Noble, 2009).

A Zimbabwean study on the determinants of nondisclosure of HIV status among women attending the Prevention of Mother – To – Child Transmission of HIV programme in Makonde District (2009) revealed that 51,8 % of the participants did not disclose their results. The reasons for non disclosure were similar with findings from other studies and included factors such as fear of physical abuse, and fear of divorce. Group counselling also was a contributory factor towards non disclosure in this study. It was also concluded that low acceptance of HIV testing by men is contributing to non disclosure of HIV status by women in the Makonde PMTCT programme regardless of the women's HIV results (Mucheto, Nyamayaro, Jones, 2009).

A study in a PMTCT programme in Abidjan was done on “When do HIV-infected women disclose their HIV status to their male partner and why?” In this project, 546 HIV positive and 393 HIV negative women were interviewed during pregnancy and followed up for two years after delivery. Circumstances, frequency and determinants of disclosure to the male partner were estimated according to HIV status. Most of the HIV – negative women (96.7 %) disclosed their HIV results to their partners compared to 46.2 % of HIV positive women ($X^2 = 265.2$, degrees of freedom (df) = 1, $P < 0.001$). Among HIV infected women who disclosed their HIV status 82.1 % declared that their partner had a “positive” reaction, that is, was understanding and provided moral support (Brou, Djohan, Becquet, et. Al., 2007). A similar finding was in the study by Kassaye, Lingerh and Dejene 2005, where 75.9 % of HIV positive women who disclosed their results reported positive partner's reaction.

Among the women declaring “negative” reactions from their partner, ten (4%) were blamed for not discussing with him prior to HIV testing, one (0.4%) experienced violence, six (2.4%) ended their relationship with their partners, and five (2%) declared their partner did not

believe their wife's positive results. HIV infected women were less likely to disclose their HIV status when they lived with their own family but without their partner than when they lived with their partner only. (AOR=0.29, 95 % CI 0.17-0.50, Wald test = 20.68, df = 1; p < 0.001 and when they had a co-spouse, versus being the only wife (AOR = 0.51, 95 % CI 0.31- 0.83, Wald test = 7.19, DF =1, p = 0.07) (Brou, Djohan, Becquet et. al., 2007).

The researchers noted that their results on the proportion of HIV infected women who disclosed their status to their partner were comparable to those observed in the context of a previous similar study conducted in the same sites in Abidjan. Their interpretation was that lack of evolution over time underlines the difficulties HIV infected women encountered in discussing their own HIV status within the couple and raises the persistent fear of social stigma associated with HIV in this context. The investigator wishes to find out if the majority of HIV positive women in Makoni Urban are being able to disclose their results before delivery, that is, before implementation of the infant feeding choice. This is an important factor to take into account in the Prevention of Mother-To-Child Transmission.

Conjugal organization seems to be an important determinant of disclosure. Women cohabiting with their partner were more likely to share their test results regardless of their HIV status. Similar results were observed in Zambian study on individual and couple HIV counselling and testing. Cohabitation provides more space and time for discussing such sensitive issues as HIV infection. By contrast, living in polygamous households or in shared housing reduces the likelihood of women's disclosure (Brou, DJohan, Becquet et. al., 2007).

A study on disclosure and stigma among women participating in the PMTCT programme in Urban Zimbabwe, 2008 discovered that disclosure rates to male partners by women participating in the program in Chitungwiza was high, yet disclosure to relatives and

the community remains low. A total of 147 pregnant women participated in the study. The persons to whom participant had disclosed her HIV positive status were as follows; 115 (78 %) to male partner, 65 (44 %) to siblings (own sisters or brothers) 44 (30 %) to own parents, 20 (14 %) to in-laws, 16 (11 %) to friends, 7 (5 %) to neighbours, 6 (4 %) to children, 4 (2 %) to the public and 7 (5 %) disclosed to no-one. The reasons for disclosure to partner were so that the partner can take them for appropriate care during illness 56 (38 %), to encourage partner to get tested also 46 (31 %), as cultural norm that head of the house should know 40 (27 %), for moral support 30 (19 %), for facilitating of uptake of PMTCT interventions 21 (14 %), for safer sex 21 (14 %) and for financial and food support 5 (4 %).

The reasons for non disclosure varied with individuals and included fear of marriage breakdown, fear of being accused of infidelity, fear of domestic violence; fear that partner may think the woman does not trust him, fear of stigmatization and fear of rejection (Muchedzi, Chandisarewa, & Keatinge et. al., 2008). In the same study, less than half of the respondents reported to have witnessed other HIV positive people being stigmatized, with 12 % having experienced stigmatization themselves. The incidences included use of isolated kitchen utensils, utterances of demeaning nicknames, rejection, refusal of care and isolation (Muchedzi, Chandisarewa, & Keatinge et. al., 2008). The study revealed that fear of stigmatization prevents disclosure to relatives. The investigator will evaluate the preferences to whom pregnant women in Makoni Urban disclose to and their reasons. This is very important because lack of disclosure of HIV-positive status to male partners and significant others by pregnant women can result in poor adherence to PMTCT programme interventions, and can also limit access to HIV treatment for both the mother's own health and for the reduction of the risk of HIV transmission to the unborn baby (Muchedzi, et. al., 2008). Because the topic of disclosure is central to the emotional well-being of so many patients

,disclosure counselling is an essential part of HIV and AIDS care (Maman, 2003). Practical questions about whom to tell, when to tell, how to tell may be overwhelmed by fear of the outcome yet sharing the information can help a person to seek practical ,medical and emotional support (Maman, 2003).

Perceived Quality of Provider Initiated Testing and Counselling (PITC)

There is limited data regarding patient perceptions of routine PITC offered in general medical facilities (Becker ,Tsague, Sahabo, & Twyman, 2009) .Eleven months after the institution of PITC in Botswana, a survey was conducted that sought to describe the knowledge and attitudes of the general population. A total of 81% of respondents reported being very much or extremely in favour of routine PITC, and 98% reported not regretting their decision to be tested (Becker, Tsague, Sahabo, & Twyman, 2009) .Such comments shield very important concerns about PITC. There is very little documentation of actual patient and community perceptions of PITC programs ,or data describing the perceptions of providers regarding the feasibility and appropriateness of routine testing and counselling in their facilities and their willingness to participate in these programs.

The main justification for routine PITC is to increase the number of patients tested and thus the number of HIV infected patients identified and linked to medical care and support services yet there is nothing documented on whether PICT assists clients to disclose their status .It can also be argued that improved testing numbers are being used to justify an erosion in the quality of pretest counselling. Intergrating PITC in busy, and overwhelmed clinical setting may cause some concern regarding the quality of PITC (Becker, Tsague, Sahabo & Twyman ,2009). This predicted decline in the quality of counselling is also sited as a threat to

informed consent as patients may be provided with inadequate information, particularly regarding the potential negative consequences of testing and or disclosure.

Data in this regard is extremely limited and therefore care must be taken to safeguard and ensure adequate patient education and knowledge prior to the offer of testing . Research is also needed to better understand how PITC programs institute effective counselling and testing in busy and hurried clinical centers where resources are limited. PITC has not been validated and research that addresses the quality of PITC is critically needed to further guide its expansion (Becker ,Tsague, Sahabo & Twyman ,2009) .

According to Lummis 1996, in Clemen-Stone, McGuire & Eigsti, (2002), nursing concern for quality improvement in health care delivery is not a recent phenomenon, and quality improvement has always been a primary focus in the health care arena. Today, societal forces continue to significantly influence the emphasis on quality in health care delivery.

Good quality of care enhances client's satisfaction and their use of services. It increases job satisfaction and motivation among service providers and leads to greater sustainability of services . To fulfil this , there is need to give service providers feedback on their performance (International Planned Parenthood Federation (IPPF), 2010). The Federation also advises that health care costs can be controlled through ensuring that quality is not compromised.

The “Wisconsin Hospitals Accountable for quality, 2010”, state that a quality measure is information from a patient's record or an operational process that is converted into a rate, percentage or time that shows how well providers are taking care of their patients. Quality of care is about delivering the best possible care and achieving the best possible outcomes for people every time they deal with the health care system or use its services and this means

doing the best possible job with the resources available (Health Canada, 2010). They stated that the issues on access or waiting times, consumer participation, health care equipment , patient safety contribute to the quality achieved.

A study from South India on perceptions of TB patients on PITC actually concluded that while PITC is useful in identifying new HIV infected patients so they can be successfully linked to ART , the proximity of testing centers, quality of HIV counselling and efficiency of ART services need attention (Thomas, Dewan, & Vivay et. al., 2009).

PITC has generated widespread debate about whether it is the right approach in a context of HIV –related stigma and lack of human and material resources (Evans & Ngirangu, 2009). Limited available evidence suggests that health system factors and organisational/professional culture may create obstacles of effective PITC implementation . Specific findings are that PITC greatly increases workload and work related stress to nurses. Nurses are generally positive about PITC, but express the need for more training and managerial support. Health system constraints (lack of staff, lack of space), mean that nurses do not always have time to provide adequate counselling. Nurses are also always stressed by breaking bad news and handling ethical dilemmas. The hierarchical and didactic nursing culture affects counselling quality and the boundaries between informed consent become rather blurred (Evans & Ngirangu, 2009). A recommendation has been made that PITC implementation needs to be strengthened through research or audit so as to explore nurse and patient experiences, to identify best practice and key obstacles.

HIV positive pregnant women can benefit greatly from PITC if it is carried out properly (Gruskin, Ahmed, & Ferguson, 2008). They recommend that those involved in the scale up of PITC should ensure that it promotes long term connection with relevant health services and does not simply increase testing with no concrete benefits being accrued by the

women being tested. The investigator would like to find out if PITC is helping HIV positive antenatal mothers to disclose their results. Women may be more susceptible to changes to consent and counselling process for HIV testing because of their marginalized social status in many settings. More research is needed to document women's experiences with PITC. Understanding women's experiences will help to formulate feasible and effective strategies to support women and ensure they gain access to HIV treatment services (Maman & King, 2008).

Kasenga, Byass, Emmelin and Hurtig (2009) carried out a research on the implications of the policy changes on the uptake of a PMTCT programme in rural Malawi. The opt-out strategy was introduced in January 2006 in Malamulo SDA Hospital PMTCT programme as a government initiative. The purpose was to minimize the number of HIV infected women who might transmit HIV infection to their babies (Kasenga, Byass, Emmelin, & Hurtig, 2009). When the opt in policy was used in PMTCT services, counsellors did one- to- one pre and post counselling, since the uptake was low. With the opt-out strategy, the counsellors work increased. Therefore the counsellors now conduct the pre-test phase using group counselling, to cope with the growing demand for HIV testing; however, post test counselling continues to be provided on a one – to – one basis. (Kasenga, Byass, Emmelin & Hurtig, 2009). The study did not look at the effects of group counselling. A Zimbabwean study by Mucheto, Nyamayaro, and Jones, 2009 on “ Determinants of Non disclosure of HIV status among women attending the PMTCT programme in Makonde District revealed that respondents who received group HIV pretest counselling were 2.4 times more likely not to disclose their HIV results. The findings will be used to evaluate if group counselling negatively affects disclosure patterns. The impact of HIV counselling and testing may be greatly reduced if pregnant mothers tested for HIV do not disclose their test results.

Some researchers have also evaluated PITC uptake of TB patients. A study has been carried out in India to evaluate the “Feasibility of PITC of Tuberculosis Patients under the TB Control Programme in 2 districts of South India” The researchers argued that PITC is internationally recommended for Tuberculosis (TB) patients, but the feasibility, effectiveness and impact of this policy on the TB programme in India are unknown. The study showed that a majority of TB patients expressed their willingness to accept HIV testing. With implementation of PITC in India, HIV status was successfully ascertained for 3 709/5 299 (70%) of TB patients in India and detected 200 cases with previously undiagnosed HIV infections (Thomas, Dewan, & Vijay, et. al., 2008). This enabled referral for life- saving anti-retroviral treatment. Unfortunately, the ART uptake was poor suggesting that PITC implementation should include measures to strengthen and support ART referral evaluation and initiation. In this study, pregnant women are also a highly vulnerable group to HIV infection just like the TB patients. Similarly, PITC has been recommended in PMTCT programmes in Zimbabwe yet the impact of this policy is still being evaluated by various investigators.

Only 64 % of HIV exposed infants received Nevirapine prophylaxis in 2007 and 63 % in 2008. The impact of the PITC becomes therefore questionable. There are some factors that are hindering adherence to the PMTCT programme following PITC. Disclosure issues may also be a contributing factor towards compliance of PMTCT recommendations.

Counselling and testing patients routinely for HIV during regular clinic visits is proving effective in increasing testing numbers in several Ugandan districts (Plus News Global, 2008). Low VCT uptake in Uganda led to introduction of PITC and this has boosted uptake. However the report does not state whether the quality of PITC is acceptable to this

particular community . There is need to carry out studies on the perceived quality of PITC. This is very important in that poor quality may hinder disclosure of HIV results.

A journal article by Gruskin, Ahmed and Ferguson 2008 cited some issues and concerns about PITC. The question raised was what does PITC in health facilities mean for the health and human rights of pregnant women? The authors argued that it is incumbent on all those involved in the scale up of PITC to ensure that it promotes long term connection with relevant health services and does not result simply in increased testing with no concrete benefits accruing to women tested (Gruskin, Ahmed and Ferguson,2008). A number of practitioners have called for approaches to scaling up HIV testing in health care setting that would make HIV testing more routine. While generally well intentioned, these unfocused calls left ambiguity in how ‘routine’ testing approaches, evaluated against both public health and human rights criteria, would, or should play out in practice (Gruskin, Ahmed and Ferguson, 2008). In the same article, it is argued that a woman is likely to access health services when pregnant or during child birth and consequently this is an opportune time for offering HIV counselling testing. Yet it cannot be assumed that, even if PMTCT is available, all pregnant women will choose to undergo HIV testing.

Recent studies have shown a relatively high uptake of HIV testing when offered as part of antenatal care services where PMTCT services were available, ranging from 70 % -97 %. This nonetheless means that, despite the availability of PMTCT services, 3 % -30 % of women declined to be tested for HIV. Reasons given by women for refusing the HIV test include fear of the consequences of a positive test result, knowledge that antiretroviral therapy (i.e. longer-term treatment for the women herself) is not available, and the need to consult her partner before testing. These factors can outweigh concerns related to perinatal transmission of HIV.

While counselling may serve to allay some of these concerns, a pregnant woman must, ultimately, be allowed to evaluate the information available to her and come to her own conclusion regarding whether or not she wishes to undergo testing. The investigator would also investigate the perceived quality of PITC by pregnant women aged 18-40 in Makoni district. It is the investigator's assumption that the pregnant women's evaluation of the information provided during counselling may influence their decision on disclosure of their HIV status .

In many settings, culture dictates that patients, and especially female patients, do not question the medical advice of their doctor (Gruskin, Ahmed and Ferguson, 2008). Thus, without adequate strategies to ensure informed consent, the opportunity to decline testing will remain beyond the reach of many pregnant women. The reasons why patients fail to oppose the recommendations of their health care provider include the high social status ascribed to medical professionals, the belief that a doctor might react negatively to such a decision and that this might negatively impact on health care provision, and the perception of HIV testing as something that has been institutionally sanctioned and is therefore the right thing to do.

A study done in Botswana, where HIV testing is routinely offered showed that 68 % of participants believed that they could not refuse the test. It can be assumed that women's self perceived in ability to refuse an HIV test will be further exacerbated by gender dynamics that make it difficult for them to say no, in this context (Gruskin, Ahmed & Ferguson, 2008). In order to make an informed decision to be tested, a pregnant woman needs to know why HIV testing is being offered, she must take into account not only the health of her baby but also her own health, the potential social implications of a positive test result and her own prospects for accessing treatment, care and support services. It is the investigator's assumption that

disclosure of the HIV results is determined by the woman's preparedness before undergoing the test.

Two studies from the United Kingdom found an incompatibility between ensuring informed oral consent and "routine" HIV testing in antenatal care. Although testing uptake appeared to increase when routinely offered, erosion in meeting criteria to ensure informed consent also appeared to be occurring.

Another study was conducted to evaluate the acceptability of the use of the routine verbal opt-out strategy for HIV screening during pregnancy among women using maternal and child health services in 2 rural districts in Zimbabwe. A total of 520 women were included in the survey out of which 285 (55%) had accepted to be tested for HIV infection, 60% in Buhera district (n=303) and 47.5% in Murewa district (n=217). Knowledge of PMTCT services and their reported existence in health facilities where women booked for ANC or delivered were significantly associated with the fact of being tested. Women who had been tested (n=285) were more likely to report having received group education and individual pretest counselling (81.4%) than those 235 untested women (22.1%; $P < 0.001$). 97.1% of the tested women reported having received individual pretest counselling compared with 30.2% of the untested ones ($P < 0.001$).

The findings above identified socio-cultural factors associated with having decided to be tested for HIV, which were being < 20 years old ($p = 0.005$), having secondary education or more ($P = 0.03$), living with a partner ($P = 0.001$), and the existence of a PMTCT service where the untested women delivered. (Perez, Zvandaziva, Engelsmann, & Dabis, 2005).

The Canadian HIV AIDS legal network(2007), reported that many participants in a March 2006 meeting in Canada debated on the issue that the real issue is the quality of

counselling and information about HIV given to pregnant women and not necessarily the increase in testing numbers. The comments were that testing numbers have no therapeutic value and that the value lies in the opportunity of counselling and sharing information that surrounds HIV testing. It is important to inform HIV positive women about treatment and care in order to gain their confidence in a health system with which they will have frequent contact. The value of the conversation is greater than the test (Spencer,2006).The World Health Organisation has suggested that PITC approaches may be acceptable if people to be tested have a clear and informed opportunity to decline the test.

According to WHO (2004) there are 3 crucial elements in obtaining truly informed consent which include providing pretest information on the purpose of testing and on treatment and support available following the result, ensuring understanding by the person getting tested and respecting the individual's autonomy. The policy statement on HIV testing(WHO/UNAIDS ,2004) further suggests a minimum content of the information provided to ensure that informed consent is truly informed to include the clinical benefit and the prevention benefits of testing, the right to refuse the test, the follow up services that will be offered and the importance of anticipating the need to inform anyone at ongoing risk who would otherwise not suspect they were being exposed to HIV infection in the event of a positive result.

Studies from Europe and the US have shown that women who perceive themselves to be at higher risk of HIV infection are more likely to get tested. However, the reverse may be true in Africa. It is more likely that in settings where infection with HIV is highly stigmatized and there is little or no treatment available, testing is less appealing for those who believe they might be infected. A Centers for Disease Control Literature review found that client- directed

counselling, routine offer of the HIV test, and an understanding of the medical and social benefits of testing were most likely to result in test acceptance. (Westleimer et al , 2004). Now that knowledge of the availability of antiretroviral therapy for the prevention of mother – to – child transmission as well as the availability of pre- and post –test counselling is becoming more wide spread, it is useful to re-evaluate the quality of PITC among pregnant women. Understanding how clients perceive their testing and counselling services adds an important level of detail, richness and nuance to an overall quality score (Zambia Voluntary Counselling and Testing Services , 2009).

Donabedian’s framework is used extensively to measure the quality of Family Planning services, in both public and private sectors (Agha, 2007). However there is no existing well tested framework to fully understand the quality of PITC services .The investigator will adapt and adopt Donabedian’s framework as a guide to better reflect the quality dimensions of PITC. The framework focuses on three main attributes, which are ,structure, process and outcome. structural dimensions of examine the infrastructure and management systems in which care is delivered, for example, the privacy of the PITC session. Process dimensions identify the extent to which good medical practice has been applied ,as well as the interpersonal characteristics and skills of providers, for example, content of information given to client ad clarity of HIV test result explanation .Outcome dimensions of quality measure the impact of care on the overall health of patients, for example, intension of behaviour change, and client satisfaction (Agha, 2007).

Perceived Quality of PITC and Disclosure

No studies could be cited in which the relationship between perceived quality of PITC and disclosure was examined. The available studies looked at each variable independently.

The above results from different studies reflect that agreeing to HIV testing may not necessarily indicate total conviction of the client regarding the benefits of HIV testing nor does it guarantee that one will disclose the test results. Given that women, and especially pregnant women, use both health services more frequently than men, they are often diagnosed with HIV before their male partners and therefore risk being blamed for bringing HIV into the relationship, even in situations where their partners may have contracted the virus first. Without proper support, PITC may inadvertently exacerbate a woman's risk of stigma from her partner, family and community (Gruskin, Ahmed & Ferguson, 2008). The investigator sought to establish if there is a relationship between the two variables.

Conceptual Framework

Only unpublished dissertations of Masters Students were found. Runyowa, (2003) used King's Theory of Goal Attainment in his dissertation on Examination of the relationship between knowledge on control of aggression and occurrence of aggression in schizophrenic clients aged between 19 -45 years admitted at Harare and Parirenyatwa Psychiatry Units. Majada, (2005) also used King's model in her dissertation on Association between interaction and adherence replacement feeding of infants whose mothers are on the Prevention of Parent to Child Transmission Programme at Mpilo Central Hospital. The investigator hopes to successfully use the King's Model in the proposed study since the later were also nursing studies.

Summary

Literature review is an important component of the research process, which is done in order to understand the background to the problem. It helps to identify gaps in body of knowledge. Various works of different authors and researchers have been reviewed and their

findings highlighted. The investigator will use these findings to guide the study in Makoni Urban. Though no previous studies have been done on the investigator's topic, it is hoped that the obtained literature will assist to generate new knowledge on the variables in question.

CHAPTER 3

METHODS

Introduction

This chapter address the research methods employed for this study. Components covered include, the design, the sampling plan, Sampling procedure, the conceptual and operational definitions of the variables under study, the research instruments, data collection plan, ethical and clearance procedures and data analysis.

Research Design

A descriptive correlational design was utilized for the study. Descriptive research aims at observing, describing and documenting aspects of a situation as it currently exists while correlational research examines relationships among variables as they naturally occur (Pollit & Hungler 1999, Burns & Grove, 2004).

According to Polit and Hungler (1999), a descriptive correlational research is useful in nursing research because it is an efficient and useful method of collecting a large amount of data about a problem area in a relatively short time. It is often strong in terms of realism and helps in the solution of many practical problems.

Sampling Plan

A sampling plan defines the process of selecting subjects. Several components are included in the sampling plan. According to Polit and Hungler (1999), sampling is a process of selecting a subject of a population to obtain information that represents the entire population. In this study, pregnant women enrolled in the PMTCT programme represented the entire population. Burns and Grove (2004) regard sampling decisions as having a major impact on the meaning and generalizability of the findings. Generalizability refers to the ability to apply

the findings to other populations and in other settings. The components of the sampling plan for this study are outlined below.

Study Site

Subjects were selected from Rusape General Hospital, and the two town council clinics where antenatal care services are offered on a daily basis. These sites represented a more accessible population to the investigator because of the higher numbers of attendance of ANC mothers. A feasibility survey revealed that an average of 19 clients in the age 18 to 40 year age group attended ANC according to their review date at Rusape General Hospital with slightly lower numbers attended to at the council clinics per day. The investigator visited the antenatal clinics on alternative daily basis and was able to get subjects.

Target Population

According to Pilot and Hungler, (1999) the target population is the aggregate of cases about which the researcher would like to make some generalizations. Previous studies have looked at different target populations, Makarawo, (2004) looked at self disclosure of HIV infection to sexual partners by Harare male factory workers. Most studies targeted women (Kassaye, Lingerth & Dejene, 2005; Mucheto, Nyamayaro, Jones, 2009; Brou et al., 2007). The investigator's target group was pregnant women attending antenatal clinic. Choosing subjects from different clinics in Rusape Urban enabled generalizability of findings to the urban community of Makoni district.

Sample Size

Sample defines subset of the population that is selected for a study (Burns & Grove, 2004). A sample of sufficient size is essential to describe a phenomenon, detect a relationship or determine the effect of a treatment (burns and Grove, 2004). The power to detect significant

relationships and differences in studies increases as sample size increases (Burns and Grove, 2004). According to Burns and Grove (2004) statistical power is the deciding factor in determining sample size. The indicators of sample size are statistical power, significance level and effect size.

Power is the capacity of a design to detect differences or relationships that actually exist in the population (Burns & Grove, 2004). Power helps to control the likelihood of making a type 2 error which arises when an investigator accepts the null hypothesis when it should be rejected. A power of .80 was used. In Burns and Grove (2004), this is the minimum acceptable level of power for a study. If power is high, one is able to detect the small differences that exist through the statistical test.

The significance level (also known as the P value or alpha) was 0.05, which is acceptable for social science research. This significance level tries to control the likelihood of making a type 1 error, which occurs when an investigator rejects the null hypothesis when it should be accepted. A finding is significant when the significance level is 0.05 or less. It displays stronger evidence against the null hypothesis. In this study, a significance level of 0.05 will be used.

Effect size measures the degree to which the null hypothesis is false (Burns and Grove, 2004). It is an index of the strength of the independent variable on the dependent variable. As the value of effect size increases power also increases and the need sample size decrease. According to Pilot and Hungler (1999) assert that small samples are risky when the investigator has no prior reason for believing that relationships will be strong.

Using the Lipsy power tables, basing on power of .80, effect size 0.5 and significance level of 0.05, the calculated sample size was 65 participants. According to Burns and Grove (2004), the sample size needs to be larger than the calculated number because of the potential

of the attrition rate. The investigator therefore added 15 more subjects to make a total of 80 subjects.

Inclusion Criteria

In this study, the sample were HIV positive pregnant women who were tested through the PITC approach . The subjects had to have documented HIV positive results. Subjects aged 18 to 40 years were selected, thereby ensuring that the child bearing age in which most pregnancies occur is not omitted. Since 18 years is the age of majority obtaining consent was not a problem. To be eligible for selection, participants had too be fluent in either English or Shona because the instruments were available in these two languages only.

Exclusion Criteria

The exclusion criteria was also considered. All clients below the age of 18 years and above the age of 40 years were excluded. Physically or mentally unwell clients were excluded in the study, with an assumption that they were likely not able to give responses that they would otherwise give if they were at their maximum potential. Clients who had received their HIV positive results on the same day of interview were also excluded as they were possibly still worried about their results.

Sampling Method and Procedure

The sampling method was convenience sampling, a non- probability sampling method. The investigator was aware that non –probability sampling was less likely to produce accurate and representative samples. However, specification of sampling criteria and recruitment of subjects from three (3) different sites, 2 Clinics and one General Hospital helped to control bias. Through this sampling method, the procedure was that all eligible participants were approached and entered into the study until the desired sample size was achieved.

As much as non probability methods increase the risk of a biased sample, there was no way of ensuring that every member of the population could be selected. Although convenience sampling increases the possibility of sample that is not representative; it has been commonly used in nursing studies (Pilot & Hungler, 1999).

Variables

The variables in this study were perceived quality of PITC service as the independent variable and disclosure as the dependent variable. Demographic characteristics were also included in the study.

Conceptual and Operational Definitions of Variables

Level of Disclosure

Conceptually, level of disclosure meant the extent to which the study participants have gone to let people know about their HIV status (Sowell, Seals, Phillips, & Julious, 2000). The level of disclosure can be no disclosure, low level and high level disclosure (SAFAIDS, 2000). Operationally, the Disclosure Questionnaire was used to measure the overall level of disclosure.

Patterns of Disclosure

Patterns of disclosure referred to the approaches that people adopt in divulging information about their HIV status. The patterns of disclosure may either be no disclosure, partial disclosure or full disclosure (SAFAIDS, 2000). Item 11 in the Disclosure Questionnaire measured the patterns of disclosure.

Perceived Quality of PITC Service

This refers to the patients opinion on how good the PITC service is (Becker, Tsague,Sahabo, Twyman,2009). In this study the perceived quality refereed to a reflection of

the pregnant women's opinion on how good the PITC service was. The Perceived Quality of PITC Service Questionnaire was used to measure the independent variable.

Demographic Variables

The demographic variables are conceptualized as personal attributes of the study participants. This study addressed respondents age, religion, marital status, whom they live with, highest educational level attained, how they received pretest information, the health worker who counselled them and the duration of knowing their HIV status. Operationally, the Demographic Data Questionnaire measured the Demographic Variables.

Instruments

An instrument is a tool used to collect data. A structured interview schedule was used to measure the variables in the study. The present study utilized the structured interview schedules developed by the investigator. This choice of such instruments was supported by Polit & Hungler (1999) and Burns & Grove, (2004) who consider that personal interviews are the most useful way of collecting data, due to the depth and quality of information obtained.

The Disclosure Questionnaire

The disclosure questionnaire comprised 8 items (Item 9 to 16) each of which measured the extent of disclosure using either yes or no answers or responses that were scored on an incremental basis depending on the comprehensiveness of the response. A yes was scored as 1 point and a no was awarded a zero. For item 11, for example, a highest score was given to a participant who fully disclosed. Such a participant would have stated that they disclosed to people beyond the nuclear family, to the extent of going public. Scoring for the Level of disclosure was based on a minimum score of 0 and a maximum of 14. A lower score depicted

a low level of disclosure. The mean expected disclosure score was 7. Level of disclosure was also categorized as follows based on the scores achieved;

- No disclosure - zero scores (0 %)
- Low level disclosure - 1 point to 10 out of 14 (7.1 % to 71.4 %)
- High level disclosure - 11 points to 14 out of 14 (78.6 % to 100 %)

Perceived Quality of PITC Services

The PITC services Questionnaire measured concepts that constituted the independent variable. The Questionnaire had 11 items measuring perceived quality on likert scales with varying points. Some were 3 point scales measuring PITC quality on a 0 to 2 scale and others measured PITC quality on a 0 to 4 scale. Higher scores meant higher perceived quality of PITC services. Likert type questions were used because they allow for easy analysis and are less time consuming. Scoring was based on a minimum score of zero and a maximum of 148. The perceptions were further categorized into Poor, average and good perceptions as follows;

- Poor perceptions - 0 to 74 points out of 148 (0 % to 50 %)
- Average perceptions - 75 to 111 out of 148 (50.7 % to 75 %)
- Good perceptions - 112 to 148 out of 148 (75.7 % to 100 %) .

Demographic Data Questionnaire

This questionnaire had 8 items all of which measured socio-demographic characteristics. The items were numbered 1 to 8 on the questionnaire.

Reliability and Validity of the Instruments

The degree of consistency of an instrument is called reliability. Validity entails the extent to which an instrument measures what it is intended to measure. Several steps were taken to ensure validity and reliability of the instrument. The instrument constructed using

concepts from literature, and this gave it content validity. Each item was analysed with assistance from the research supervisor and nurses working in the antenatal clinic to adjust any ambiguous terms. Three separate questionnaires were used for each variable to enhance face validity.

The instruments were then translated from English into Shona paying particular attention to consistency in meaning. All interviews were conducted using the English version for those who preferred English and the shona version for those who will preferred Shona. A pilot study was then conducted at the study site to pretest the instruments.

Pilot Study

According to Polit and Hungler (1999) a pilot study provides an opportunity to test the instrument, the questionnaire, the interview schedule, the observation system, and practical details of carrying out the study. In this study, the instrument was pilot tested at Rusape General Hospital Antenatal Clinic. Participants who were selected had the same characteristics as the target population. 5 subjects were interviewed.

Data Collection Plan

Data collection plan details how a study will be implemented (Burns and Grove, 1999). There are two important components of data collection plan. These are the Ethical Considerations and the data collection Procedure.

Ethical Considerations

A letter requesting clearance was written by the researcher to the Medical superintendent of Rusape General Hospital and the council administrator of Rusape Town Council. Permission was sought from the Hospital Matron and Sister In-Charges of the council

clinics. Subjects were given essential information before they gave consent to participate in the proposed study.

The investigator also sent an application and a copy of the research proposal to the Research Council of Zimbabwe. Data collection proceeded after receiving approval from the Research Council of Zimbabwe.

Ethical principles and human rights were still observed during data collection. Each participants was allowed to disengage without prejudice towards their care or any form of management. The investigator only proceeded after receiving an acceptance letter from the Hospital and the council Ethics Committees. Subjects were assured safety against physical or psychological harm. A consent form that had been designed for the subjects to sign before participating in the study in respect of their choice was utilised. Anonymity and confidentiality were re-emphasized to encourage opening up and co-operation from the participants.

Data Collection Procedure

Data was collected after obtaining permission from the Zimbabwe Medical Research Council, the Provincial Medical Director of Manicaland Province and from the management of Rusape General Hospital, Vengere Clinic and Tsanzaguru Clinic.

The investigator visited each study site and offered to assist with checking and recording the pregnant women's weights and blood pressure in private consultation rooms and used this opportunity to identify the age and documented HIV results. Consent to participate in study was sought privately on individual basis in the examination rooms. The purpose and procedures of the study were explained to each potential participant. For those women who indicated a desire to take part in the study, a brief screening interview was done to ensure that the women met the inclusion criteria. All who met the study criteria were asked to participate.

Following an informed consent, all questions were read to the participants and their answers were recorded in the code book. The participants were interviewed in a private and comfortable room while awaiting to be attended to by the different health professionals.

The investigator visited Vengere Clinic on Mondays and Wednesdays, Rusape general hospital on Tuesdays and Thursdays, and Tsanzaguru clinic on Fridays. The same method was followed daily from 0800 hours till 1500 hours until a total of 80 clients is obtained. Data was collected from 6 April to 12 May 2010.

Anonymity was maintained by the use of numbers and not names. Each interview took an average of 30 minutes. Data collection took up to 6 weeks to complete. The investigator interviewed at least 5 participants a day.

Data Analysis Plan

Raw data were coded and entered into a codebook then into the computer files to create a data set for analysis. Statistical procedures were applied to enable the researcher to reduce, summarize, organize, evaluate, interpret and communicate numerical information. According to Burns and grove (2004), data analysis is conducted to reduce, organize and give meaning to data. Data was analysed using SPSS format. Descriptive statistics was used to analyze the demographic data in order to describe the sample of ANC Mothers. Descriptive statistics were also used to analyze the data that described the patterns of disclosure, level of disclosure and the perceived quality of PITC service. Pearson's correlation analysis was also used to analyze the question "What is the relationship between perceived quality of PITC service and disclosure among HIV positive antenatal mothers in Makoni Urban area?" The researcher used frequency distribution tables to summarize and display data.

CHAPTER 4

RESULTS

Summary

Results of this study are presented in this chapter. The results are presented in terms of sample demographic characteristics, disclosure, perceived quality of PITC and the relationship between perceived quality of PITC and level of disclosure. The purpose of the study was to determine the relationship between perceived quality of PITC and disclosure among HIV positive Antenatal mothers in Makoni Urban, Zimbabwe. The study sought to answer the following questions,

1. What are the level and disclosure patterns of HIV status among HIV positive antenatal mothers following PITC in Makoni Urban Area?
2. What is the level of perceived quality of PITC among HIV positive antenatal mothers in Makoni Urban Area?
3. What is the relationship between perceived quality of PITC service and level of disclosure among HIV positive antenatal mothers in Makoni Urban Area?

The response rate was 100 %. Data were collected by means of structured questionnaires. Analysis was done using SPSS version 11. Descriptive namely, frequencies, means, modes, medians and percentages were used to analyse data on disclosure and perceived quality of PITC service. Inferential statistics, namely Pearson Correlation Coefficient was used to demonstrate the relationship between perceived quality of PITC and level of disclosure.

Sample Demographics

Table 1 shows the ages of the respondents which ranged from 19 to 40 years. The mean age was 26.89 years. The table also shows characteristics of the study sample in terms of

educational level, marital status and religion. In terms of marital status, 64 (79.8 %) respondents were married, 11 (13.8 %) were single, 3 (3.8 %) were separated, 1 (1.3 %) was divorced and 1 (1.3 %) was widowed. With regards to religion, 78 (97.4 %) were Christians, 1 (1.3%) was Traditional and 1 (1.3 %) was Moslem.

Table 2 shows the study sample's demographics involving whom they live with, how they received pretest information, who counselled them and the length of time since diagnosis of HIV status. Most of the respondents 39 (48.8 %) lived with their husband and children, 14 (17.5 %) lived with their inlaws, 9 (11.2 %) lived with their husband or partners only, 8 (9.9 %) lived with their own parents, 5 (6.3 %) lived with other relatives and 5 (6.3 %) lived alone.

In terms of receiving pretest information, 36 (45.0 %) had group counselling, 35 (43.8 %) received pretest information on a one on one session and only 9 (11.2 %) received couple counselling. The majority 51 (63.7 %) were counselled by a qualified nurse, 28 (35 %) were counselled by a primary counsellor and only 1 (1.3 %) was counselled by a professional counsellor. With regards to length of time since diagnosis of HIV status, 45 (56.1 %) have been knowing their HIV status for more than one months, 22 (27.4 %) for more than one week to one month, 8 (9.9 %) for more than six month to one year, 3 (3.8 %) for more than one year and 2 (2.5 %) for less than one week.

Table 1

Sample Demographics (i) (N=80)

Variable	Frequency	Percentage
<u>Age in years</u>		
Nineteen	4	5.0
Twenty	5	6.3
Twenty one	6	7.4
Twenty two	8	10.0
Twenty three	6	7.4
Twenty five	8	10.0
Twenty six	5	6.3
Twenty seven	3	3.8
Twenty eight	2	2.4
Twenty nine	8	10.0
Thirty	5	6.3
Thirty one	1	1.3
Thirty two	5	6.3
Thirty three	3	3.8
Thirty four	1	1.3
Thirty five	6	7.4
Thirty seven	2	2.4
Thirty eight	1	1.3
Forty	1	1.3
<u>Educational level</u>		
Never went to school	1	1.3
Primary	41	51.1
Secondary	33	41.3
College/University	5	6.3
<u>Marital status</u>		
Single	11	13.8
Married	64	79.8
Divorced	1	1.3
Separated	3	3.8
Widowed	1	1.3
<u>Religion</u>		
Christian	78	97.4
Traditional	1	1.3
Moslem	1	1.3

Table 2
Sample Demographics(ii) (N=80)

Variable	Frequency	Percentage
<u>Whom do you live with?</u>		
Husband and children	39	48.3
Husband/Partner only	9	11.2
Inlaws	14	17.5
Own parents	8	9.9
Alone	5	6.3
Other relatives (specify)	5	6.3
<u>How did you receive pretest information?</u>		
Group counselling	36	45.0
Couple counselling	9	11.2
One- on- one session	35	43.8
<u>Who counselled you?</u>		
Qualified nurse	51	63.7
Professional counsellor	1	1.3
Primary counsellor	28	35.0
<u>Length of time since diagnosed 'HIV positive'?</u>		
Less than one week	2	2.5
One week to one month	22	27.4
More than one month to six months	45	56.1
More than six months to one year	8	9.9
More than one year	3	3.8

Disclosure

Table 3 Shows results on disclosure. Disclosure levels were measured in the dimensions of whether one had disclosed or not, when they had disclosed, to whom they had disclosed to and the information they had disclosed. Sixty –seven (83.8 %) had disclosed their HIV status and 13 (16.2 %) had not yet disclosed. Among those who had disclosed, 32 (40.1%) had disclosed to their partners or husbands only, 27 (33.6 %) had disclosed to a close family member, 5 (6.3 %) had disclosed to a close family member and extended family member, 2 (2.5 %) had disclosed publicly as well as to a close and extended family member and 1 (1.3 %) had disclosed to a friend only. In terms of information disclosed, 66 (82.5 %) mentioned the element of HIV and only 1 (1.3 %) did not mention HIV.

Table 3 further shows results of those who had not disclosed in the dimensions of their intention to disclose, to whom they intent to disclose to, when they intend to do so, and how they intend to disclose. Eleven (13.7 %) had intention to disclose and 2 (2.5 %) had no intention to disclose. Those who intended to disclose 6 (7.4 %) reported preferring to disclose to a close family member only, and 5 (6.3 %) reported preferring to disclose to partner/husband only. Two (2.5 %) insisted on not intending to disclose to anyone. In regards to when they intend to disclose, 6 (7.4 %) had intention of disclosing soon, 5 (6.3 %) were still to decide and 2 (2.5 %) were insisting that they will never disclose. In terms of how they intent to disclose, 9 (11.2 %) reported that they would use point blank disclosure, 1 (1.3 %) would use stage setting and 1 (1.3 %) would use indirect disclosure.

Table 3

Disclosure (i) (N=80)

Variable	Frequency	Percentage
<u>Disclosed HIV status?</u>		
No	13	16.2
Yes	67	83.8
<u>If yes, when disclosed?</u>		
After two weeks	1	1.3
Within a few days	6	7.4
On same day of receiving results	60	75.1
N/A (not yet disclosed)	13	16.2
<u>To whom did you disclose?</u>		
Close family member only	27	33.6
Partner only	1	1.3
Friends only	32	40.1
Close family member and extended family	5	6.3
Public, close family member, and extended family member	2	2.5
N/A(not yet disclosed)	13	16.2
<u>What information did you tell the person you disclosed to?</u>		
Did not mention HIV(I am sick/ i have lowered immunity/my CD4 count is low)	1	1.3
Mentioned that I am HIV positive)	66	82.5
N/A(not yet disclosed)	13	16.2
<u>Intention to disclose</u>		
No	2	2.5
Yes	11	13.7
N/A(already disclosed)	67	83.8
<u>Intention to whom?</u>		
To no one	2	2.5
Close family member only	6	7.4
Partner/Husband only	5	6.3
N/A(already disclosed)	67	83.8
<u>When do you intend to disclose?</u>		
Will never disclose	2	2.5
Still to decide	5	6.3
Soon	6	7.4
N/A(already disclosed)	67	83.8
<u>How do you intend to disclose?</u>		
No intention at all to disclose	2	2.5
Indirect disclosure	1	1.3
Stage setting	1	1.3
Point blank	9	11.2
N/A(already disclosed)	67	83.8

Table 4 shows the results on patterns of disclosure that emerged, overall disclosure scores out of 14 and a summary of the level of disclosure for the sample. The majority of participants, 65 (81.3%) had partially disclosed and only 2 (2.5%) had achieved full disclosure. Scoring for disclosure was based on a minimum score of zero, a maximum score of 14. The mean disclosure score was therefore 7. The sample's mean disclosure score was 9.56, slightly above the expected mean. However, the total disclosure scores ranged from a minimum score of 0 to a maximum score of 14. The results show that although out of 80 respondents, 75 (93.6 %) had a total disclosure score above the expected mean of 7, 71 (88.8%) actually had a low level of disclosure based on the rating scale.

Perceived Quality of PITC Service

Table 5 shows results of perceived quality of PITC. Seventy three (91.1%) reported that the explanation on what to expect was clear, and seven (8.9%) reported that the explanation on what to expect was not clear. In terms of feelings about waiting time to see counsellor, 68 (85 %) of the respondents reported that the time was acceptable, 10 (12.5 %) reported that it was too long and only 2 (2.5 %) were uncertain. On preparedness to get tested, 63 (78.8 %) were readily prepared, 8 (10 %) were prepared, 8 (10 %) were unprepared and only 1 (1.3 %) was uncertain. With regards to feelings about waiting time to receive results, 77 (96.2 %) reported that the waiting time was acceptable and only 3 (3.8 %) reported that it was too long.

Responses on feelings about time spent speaking with the counsellor varied. Six two (77.4 %) reported the time as acceptable, 16 (20.1 %) reported that the time was too short, and 2 (2.5 %) reported that the time was long.

Table 4

Disclosure (ii) (N=80)

<u>Variable</u>	<u>Frequency</u>	<u>Percentage</u>
<u>Patterns of Disclosure</u>		
No Disclosure	13	16.2
Partial Disclosure	65	81.3
Full Disclosure	2	2.5
<u>Total Disclosure Scores out of 14</u>		
Zero	2	2.5
Four	1	1.3
Five	1	1.3
Seven	1	1.3
Eight	3	3.8
Nine	13	16.2
Ten	52	64.8
Twelve	5	6.3
Fourteen	2	2.5
<u>Level of Disclosure</u>		
No disclosure	2	2.5
Low level	71	88.8
High Level	7	8.7

Table 5

Perceived Quality of PITC (i) (N=80)

<u>Variable</u>	<u>Frequency</u>	<u>Percentage</u>
<u>How clear was explanation on what to expect</u>		
Not clear	7	8.9
Clear	73	91.1
<u>Feelings about waiting time to see counsellor</u>		
Too long	10	12.5
Uncertain	2	2.5
Acceptable	68	85.0
<u>Preparedness to get tested</u>		
Unprepared	8	9.9
Uncertain	1	1.3
Prepared	8	10.0
Readily prepared	63	78.8
<u>Feelings about waiting time to receive results</u>		
Too long	3	3.8
Acceptable	77	96.2
<u>Feelings about time spent speaking with counsellor</u>		
Too short	16	20.1
Too long	2	2.5
Acceptable	62	77.4
<u>Preparedness to discuss results</u>		
Unprepared	8	9.9
Prepared	72	90.1
<u>Comfort during discussion of results</u>		
Uncomfortable	3	3.8
Comfortable	77	96.2
<u>Clarity of HIV test results</u>		
Unclearly	1	1.3
Uncertain	1	1.3
Clearly	78	97.4
<u>Satisfaction with the privacy of counselling and testing sessions</u>		
Satisfied	80	100.0
<u>Information on the importance of testing and counselling</u>		
Useful	4	5.0
Very useful	25	31.3
Extremely useful	43	53.8
Information was not given	8	9.9

In terms of preparedness to discuss results, 72 (90.1 %) were prepared whereas 8 (9.9 %) were unprepared. In terms of comfort during discussion of results, 77 (96.2 %) were comfortable, and only 3 (3.8 %) were uncomfortable. With regards to clarity of HIV test results, 78 (97.4 %) reported that the results were clear, 1 (1.3 %) reported that the results were unclear and 1 (1.3 %) was uncertain. All the respondents 80 (100 %) reported that they were satisfied with the privacy of counselling and testing sessions. At the bottom of Table 5 are results of usefulness of information given before testing. The information on the importance of testing and counselling was rated as extremely useful by 43 (53.8 %) respondents. Twenty five (31.3 %) reported that it was very useful, four (5 %) reported that it was useful and 8 (9.9 %) reported that the information was not given to them.

Basic information on HIV and AIDS was rated as extremely useful by 37 (46.3 %) respondents, as very useful by 12 (15 %) respondents, as useful by 3 (3.8 %) respondents, as somewhat useful by 1 (1.3 %) respondent and as useless by 1 (1.3 %) respondent. Twenty six respondents (32.5 %) reported that the information was not given during the session. These results are shown on Table 6.

With regards to information on planning pregnancy, 60 (75.1 %) reported that the information was not given to them. Another 73 (91.1%) reported that information on termination of pregnancy was not given to them while 61 (76.1%) stated that information on delivery options was not availed to them. Forty nine (61.1%) found information on how to enter into an ARV programme to be extremely useful. Information on infant feeding options was reported to be extremely useful by 43 (53.8%) of participants. Another 43 (53.3%) found the information on preventing reinfection to be extremely useful.

Table 6
Perceived Quality of PITC (ii) (N=80)

<u>Variable</u>	<u>Frequency</u>	<u>Percentage</u>
<u>Information on HIV and AIDS</u>		
Useless	1	1.3
Somewhat useful	1	1.3
Useful	3	3.8
Very useful	12	15.0
Extremely useful	37	46.3
Information was not given	26	32.5
<u>Information on planning pregnancy</u>		
Useful	2	2.5
Very useful	9	11.2
Extremely useful	9	11.2
Information was not given	60	75.1
<u>Information on termination of pregnancy</u>		
Useless	2	2.5
Sometime useful	1	1.3
Useful	1	1.3
Extremely useful	3	3.8
Information was not given	73	91.1
<u>Information on delivery options</u>		
Useless	4	5.0
Somewhat useful	1	1.3
Useful	5	6.3
Very useful	4	5.0
Extremely useful	5	6.3
Information was not given	61	76.1
<u>Information on entering into ARV programme</u>		
Useless	1	1.3
Useful	5	6.3
Very useful	11	13.8
Extremely useful	49	61.1
Information was not given	14	17.5
<u>Information on infant feeding options</u>		
Useful	2	2.5
Very useful	9	11.2
Extremely useful	43	53.8
Information was not given	26	32.5
<u>Information on preventing re-infection or spread of infection</u>		
Useful	2	2.5
Very useful	13	16.2
Extremely useful	43	53.8
Information was not given	22	27.4

Table 7 displays more results on perceived quality of PITC service. With regards to information on disclosure of HIV status, 41 (51.1 %) reported that the information was extremely useful. Information on psychosocial support needs was reported as extremely useful by 37 (46.2 %) respondents. In terms of information on discordant results, only 27 (33.6 %) respondents reported that the information was extremely useful. More than half, 42 (52.7%) reported information on HIV testing to be extremely useful.

Table 7, also shows results of usefulness of information given after receiving HIV positive results. Information on Antenatal Care was reported as extremely useful by 44 (54.9 %) respondents. Eleven (13.8 %) of the respondents reported that the information was very useful. Twenty five (31.3 %) of the respondents reported that the information was not given.

With regards to information on HIV and AIDS issues, 43 (53.8 %) of the respondents reported that the information was extremely useful, 11 (13.8 %) reported that the information was very useful and 6 (7.4 %) reported that it was useful. Twenty (25 %) of the respondents reported that the information was not given.

In terms of information on disclosure of HIV status after receiving the HIV test results, 40 (49.8 %) respondents reported that the information was extremely useful, 12 (15 %) reported that the information was very useful, 3 (3.8 %) reported that it was useful and 1 (1.3 %) reported that the information was useful, 1 (1.3 %) reported that it was somewhat useful and 1 (1.3 %) reported that the information was useless. Twenty three (28.8 %) respondents reported that the information was not given.

Table 7

Perceived Quality of PITC(iii) (N=80)

<u>Variable</u>	<u>Frequency</u>	<u>Percentage</u>
<u>Information on disclosure of HIV status</u>		
Useless	2	2.5
Somewhat useful	1	1.3
Very useful	11	13.8
Extremely useful	41	51.1
Information was not given	25	31.3
<u>Information on psychosocial support needs</u>		
Useless	1	1.3
Useful	2	2.5
Very useful	14	17.5
Extremely useful	37	46.2
Information was not given	26	32.5
<u>Information on discordant results</u>		
Useless	2	2.5
Useful	11	13.8
Very useful	18	22.7
Extremely useful	27	33.6
Information was not given	22	27.4
<u>Information on HIV testing</u>		
Useful	4	5.0
Very useful	21	26.3
Extremely useful	42	52.7
Information was not given	13	16.2
<u>Information on antenatal care</u>		
Very useful	11	13.8
Extremely useful	44	54.9
Information was not given	25	31.3
<u>Information on HIV and AIDS issues</u>		
Useful	6	7.4
Very useful	11	13.8
Extremely useful	43	53.8
Information was not given	20	25.0
<u>Information on disclosure of HIV status</u>		
Useless	1	1.3
Somewhat useful	1	1.3
Useful	3	3.8
Very useful	12	15.0
Extremely useful	40	49.8
Information was not given	23	28.8

According to the results on Table 8, information on condom use was reported as extremely useful by 45 (56.1 %) respondents. In terms of information on safer sexual practices, 46 (57.3 %) of the respondents reported that the information was extremely useful. Twenty (25 %) of the respondents reported that the information was not given. With regards to information on delivery plans, 49 (61.1 %) reported that the information was extremely useful, 11 (13.8 %) reported that the information was very useful and 1 (1.3 %) reported that the information was useless. Nineteen (23.8 %) of the respondents reported that the information was not given.

The information on infant feeding options was reported as extremely useful by 47 (58.7 %) respondents. Four (5 %) of the respondents reported that the information was very useful. Twenty seven (33.8 %) of the respondents reported that the information was not given. Information on cotrimoxazole prophylaxis was reported to be extremely useful by 32 (40.1 %) respondents and very useful by 6 (7.5 %) respondents. Forty two (52.5 %) of the respondents reported that the information was not given.

In terms of information on ART prophylaxis, 52 (64.8 %) respondents reported that the information was extremely useful. However, Eighteen (22.7 %) respondents reported that the information was not given. Information on nutrition was report as extremely useful by 29 (36.3 %) respondents. Only 8 (9.9 %) of the respondents reported that it was very useful. Forty three (53.8 %) respondents reported that the information was not given. With regards to information on exercise, only 10 (12.5 %) respondents reported that the information was extremely useful.

Table 8

Perceived Quality of PITC(iv) (N=80)

<u>Variable</u>	<u>Frequency</u>	<u>Percentage</u>
<u>Information on condom use</u>		
Useless	2	2.5
Somewhat useful	1	1.3
Useful	4	5.0
Very useful	11	13.8
Extremely useful	45	56.1
Information was not given	17	21.3
<u>Information on safer sexual practices</u>		
Useless	2	2.5
Somewhat useful	1	1.3
Useful	4	5.0
Very useful	7	8.9
Extremely useful	46	57.3
Information was not given	20	25.0
<u>Information on delivery plans</u>		
Useful	1	1.3
Very useful	11	13.8
Extremely useful	49	61.1
Information was not given	19	23.8
<u>Information on infant feeding options</u>		
Useful	2	2.5
Very useful	4	5.0
Extremely useful	47	58.7
Information was not given	27	33.8
<u>Information on cotrimoxazole prophylaxis</u>		
Very useful	6	7.4
Extremely useful	32	40.1
Information was not given	42	52.5
<u>Information on ART prophylaxis</u>		
Useless	1	1.3
Useful	1	1.3
Very useful	8	9.9
Extremely useful	52	64.8
Information was not given	18	22.7
<u>Information on nutrition</u>		
Very useful	8	9.9
Extremely useful	29	36.3
Information was no given	43	53.8
<u>Information on exercise</u>		
Useful	1	1.3
Very useful	7	8.9
Extremely useful	10	12.5
Information was not given	62	77.3

According to the results on Table 9, Information on prompt medical attention was reported as extremely useful by 38 (47.3 %) respondents. Thirty six (45 %) of the respondents reported that the information on stress management was not given. Information on support systems was report as extremely useful by only 12 (15 %) of the respondents. In terms of usefulness of information on reducing risk of infecting others, 38 (47.4 %) of the respondents reported that the information was extremely useful. With regards to information on treatment of sexually transmitted infections, 36 (45 %) reported that the information was not given.

Information on family planning was reported as extremely useful by 31 (38.7 %) respondents. Five (6.3 %) of the respondents reported that the information was very useful and 2 (2.5 %) reported that it was useful. Forty two (52.5 %) reported that the information was not given.

In terms of information on HIV testing for respondent's partner, 58 (72.5 %) reported that the information was extremely useful, 6 (7.4 %) reported that the information was very useful, 3 (3.8 %) reported that it was useful and 1 (1.3 %) reported that it was somewhat useful. Three (3.8 %) reported that the information was useless, and 9 (11.2%) reported that the information was not given.

Results on Information on delivery at a health institution and follow up of HIV exposed infants are displayed on Table 10. Sixty nine (86.1 %) found information on delivery at a health institution to be extremely useful while 57 (71.2%) extremely commended on information on follow up of HIV exposed infants.

Table 9
Perceived Quality of PITC (v)

(N=80)

Variable	Frequency	Percentage
<u>Information on prompt medical attention</u>		
Useless	1	1.3
Very useful	7	8.9
Extremely useful	38	47.3
Information was not given	34	42.5
<u>Information on stress management</u>		
Useful	1	1.3
Very useful	13	16.2
Extremely useful	30	37.5
Information was not given	36	45.0
<u>Information on support systems</u>		
Useless	2	2.5
Useful	3	3.8
Very useful	9	11.2
Extremely useful	12	15.0
Information was not given	54	67.4
<u>Information on reducing risk of infecting others</u>		
Useful	2	2.5
Very useful	11	13.8
Extremely useful	38	47.4
Information was not given	29	36.3
<u>Information on treatment of sexually transmitted infections</u>		
Very useful	10	12.5
Extremely useful	34	42.5
Information not given	36	45.0
<u>Information on family planning</u>		
Useful	2	2.5
Very useful	5	6.3
Extremely useful	31	38.7
Information was not given	42	52.5
<u>Information on HIV testing for partner</u>		
Useless	3	3.8
Somewhat useful	1	1.3
Useful	3	3.8
Very useful	6	7.4
Extremely useful	58	72.5
Information was not given	9	11.2

Table 10

Perceived Quality of PITC (vi) (N=80)

<u>Variable</u>	<u>Frequency</u>	<u>Percentage</u>
<u>Information on delivery at a health institution</u>		
Very useful	4	5.0
Extremely useful	69	86.1
Information was not given	7	8.9
<u>Information on follow up of HIV exposed infants</u>		
Very useful	4	5.0
Extremely useful	57	71.2
Information not given	19	23

Table 11

Perceived Quality of PITC (viii)

(N=80)

Variable	Frequency	Percentage
<u>Total Scores out of 148</u>		
Ten	1	1.3
Thirteen	1	1.3
Twenty four	1	1.3
Thirty five	1	1.3
Thirty seven	1	1.3
Thirty nine	1	1.3
Forty six	1	1.3
Forty nine	1	1.3
Fifty	2	2.5
Fifty six	1	1.3
Sixty	1	1.3
Sixty one	1	1.3
Sixty four	1	1.3
Sixty five	1	1.3
Sixty six	2	2.5
Sixty seven	1	1.3
Seventy four	1	1.3
Seventy eight	1	1.3
Eighty	2	2.5
Eighty one	1	1.3
Eighty three	2	2.5
Eighty four	2	2.5
Eighty six	1	1.3
Ninety	1	1.3
Ninety one	2	2.5
Ninety three	1	1.3
Ninety four	2	2.5
Ninety five	1	1.3
Ninety six	1	1.3
Ninety eight	2	2.5
Ninety nine	2	2.5

Table 11 shows results on overall perceived quality of PITC scores out of 148. Scoring was based on a minimum score of zero and a maximum score of 148. The mean perceived quality of PITC score according to the measuring instrument was 74. The actual results showed that the actual mean perceived score was much higher (90.15). According to the results shown on tables 10 and 11, the total perceived quality of PITC scores ranged from a minimum score of 10 to a maximum score of 132. After regrading the perceived quality of PITC service scores, it became apparent that actually 43 (53.8%) perceived the quality PITC service to be average. The total scores for only 18 (22.5%) reflected perceived good quality of PITC services.

Relationship Between Perceived Quality of PITC service and Level of Disclosure

Table 13 shows the results of Pearson Correlation analysis. To establish whether there was a relationship between perceived quality of PITC and disclosure, a Pearson correlation analysis was performed. The results show a weak non significant positive correlation ($r = .193$) of perceived quality of PITC and disclosure among HIV positive antenatal mothers. Therefore although the results lacked statistical significance, there is an indication of a weak linear relationship whereby, as perceived quality of PITC increases among HIV positive pregnant mothers, disclosure levels also increase.

Table 12

Perceived Quality of PITC (viii) (N=80)

<u>Variable</u>	<u>Frequency</u>	<u>Percentage</u>
<u>Total Scores out of 148 (Cont'd)</u>		
One hundred	4	5.0
One hundred and two	4	5.0
One hundred and three	1	1.3
One hundred and four	2	2.5
One hundred and five	1	1.3
One hundred and six	1	1.3
One hundred and eight	2	2.5
One hundred and nine	2	2.5
One hundred and ten	2	2.5
One hundred and twelve	3	3.8
One hundred and thirteen	3	3.8
One hundred and fifteen	1	1.3
One hundred and sixteen	1	1.3
One hundred and seventeen	1	1.3
One hundred and eighteen	2	2.5
One hundred and twenty	1	1.3
One hundred and twenty four	1	1.3
One hundred and twenty six	1	1.3
One hundred and twenty seven	1	1.3
One hundred and twenty eight	2	2.5
One hundred and thirty two	1	1.3
<u>Summary of Perceived Quality of PITC</u>		
Poor (0 to 74 scores)	19	23.7
Average (75 to 111 scores)	43	53.8
Good (112 to 142 scores)	18	22.5

Table 13

Pearson Correlation Matrix of Perceived Quality of PITC and Level of Disclosure

		Y
		1.000
X		.193
<hr/>		
*p<.05	**p<0.1	***p<.001
<hr/>		

Y: Disclosure

X: Perceived Quality of PITC

CHAPTER 5

DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS

Summary

The study design was descriptive and correlational. The purpose of carrying out this study was to examine the relationship between perceived quality of PITC and level of disclosure of HIV positive results. The research participants were HIV positive pregnant women aged between 18 and 40 years. The study was carried out at Rusape General Hospital, and the two clinics namely Vengere Clinic and Tsanzaguru Clinic. A sample of 80 participants was interviewed. King's model of Goal Attainment was used to guide the study.

Data analysis was done using the Statistical Package for Social Sciences (SPSS). Descriptive statistics in the form of frequencies, percentages and means, mode, median, were used to describe the participant's perceived quality of PITC as well as to describe the disclosure levels of HIV status. The Pearson's correlation coefficients test was used to examine the relationship between the perceived quality of PITC and disclosure levels.

Results on the disclosure patterns showed that 65 (81.3%) exhibited partial disclosure patterns. Only 2 (2.5%) achieved full disclosure. The level of disclosure was low for 71 (88.8%) of the participants. The results show a generally average perception of the quality of PITC service for 43 (53.8%) of the participants.

The Pearson correlation coefficient indicated a weak non significant positive correlation between perceived quality of PITC service and disclosure ($r = .193$). This result implies that as perceived quality of PITC increases, disclosure levels also tend to increase. The value of (r) indicated a very weak degree of association between perceived quality of PITC and disclosure.

Discussion and Implications

Sample Demographics

This study was based on a sample study of 80 subjects. The sample size was decided using a power of .80 which is the minimum acceptable level for a study. Literature review indicates studies of various sizes. Muchedzi, Chandisarewa, Keatinge et. al., (2008) included a sample of 147. Sowell, Seals, Phillips and Julious, (2000) used a participants sample size of 322 to study disclosure of HIV infection among women. Brou, Djohan Becquet et. al., (2007) included a representative sample of 939 to study reasons for disclosure to male partners by women in Abjani and when they disclosed their results. Perez Zvandaziva, Engelsmann, Dabis (2005) used a sample of 520 women in Zimbabwe. This means that the sample size used in this study is relatively small compared to other studies and therefore may not be representative of the population. The results may thus not be generalized beyond the study sample.

In terms of educational qualifications the majority of the respondents 41 (51.1 %) reported that they had gone to school up to primary education and 33 (41.3 %) had reported that they had gone to school up to Secondary education. Only 5 (6.3%) had gone up to tertiary education. Only 1 respondent (1.3 %) never went to school. This level of education is adequate to ensure understanding and comprehension of information necessary to increase disclosure levels as well as to assess quality of PITC.

This finding differs from the Makonde study where (55.3 %) had less than seven years of education and did not disclose their HIV status. In Kenya, it was noted that the literate women were more likely to disclose their HIV status than the educated ones. This is in contrast to findings of this study where educational level had no related influence towards disclosure.

In terms of marital status 64 (79.8 %) were married, 11 (13.8 %) were single, 3 (3.8 %) were separated, 1 (1.3 %) was widowed and 1 (1.3 %) was divorced. More than half the sample fell into the category with probably some socio demographic influences. In terms of religion 78 (97.4 %) of the respondents are Christians, 1 (1.3 %) is Moslem and only 1 (1.3 %) is Traditional. Most Christian denominations encourage patients to utilize modern approaches to manage illness. It was therefore not surprising to have such a big percentage of the respondents as Christians.

In terms of who the research participants were staying with, 39 (48.8 %) were staying with their husband and children. 14 (17.8 %) live with their inlaws, only 9 (11.2 %) live with their partner only, 8 (9.9 %) live with their own parents, 5 (6.3 %) stay alone and 5 (6.3 %) live with other relatives.

In terms of how the participants received pretest information 36 (45 %) reported to have received group counselling, 35 (43.8 %) reported to have had one on one sessions and 9 (11.2 %) reported to have received couple counselling. The findings of this study show that group counselling had no negative influence towards disclosure as compared to results in Makonde where group counselling was a risk factor for non disclosure of HIV results. Group counselling was done only during pretest phase of counselling. The current severe understaffing in Health facilities has seen group counselling being adopted to circumvent the shortage and to reduce the counselling burden on health workers. Couple counselling for HIV issues is recognized as an effective and important intervention. Only 9 (11.2%) respondents received couple counselling. Group counselling was noted not to pay attention to individual problems and circumstances and neither maintained confidentiality. Failure to disclose the results in a set up where male participation in the programme is low poses further challenges in the event of the couple being discordant.

In terms of who counselled the patient, 51 (63.7 %) were counselled by nurses, 28 (35 %) were counselled by primary counsellors and only 1 (1.3 %) was counselled by a professional counsellor. The findings support the comments that the introduction of the primary counsellor has resulted in an increase in the number of clients undergoing counselling for HIV (EGPAF, 2007).

In terms of length of time since diagnosed HIV positive 45 (56.1 %) are living with HIV for more than one month to six months, 22 (27.4 %) for one week to one month, 8 (9.9 %) for more than six months to one year, 3 (3.8 %) for more than one year and only 2 (2.5 %) for less than one week. Duration of knowing one's HIV status was not a risk factor for non disclosure in our study, with women who had short duration of knowing their HIV status also disclosing the results early . The duration of knowledge of HIV status has been shown to influence disclosure in a Kenyan study –where women with long duration of knowing their HIV status being more likely to disclose their HIV status. Long duration enables women to adjust to their results especially the positive result. Considering the stigma and low acceptability surrounding HIV testing, women take time to deciding on the appropriate time for disclosure of their status. Disclosure varies depending on psychosocial circumstances with some disclosing their status the very day they learnt of their status, others wait for a period of time.

A non significant proportion (6.3%) reported they were still deciding when to disclose. Disclosure is not a once off event, it is a process and within the process, individuals may undergo a cost benefit analysis especially if the result is positive. Similar findings have been documented in research, (Norman, Chopra, Kadiyala, 2005).

Disclosure

Disclosure Patterns

Only 2 (2.5%) had achieved full disclosure in this study. The majority, 65 (81.3%) had achieved partial disclosure. Sixty (75.1 %) of those who disclosed their status said they did it on the same day after getting their results, 6 (7.4 %) said they disclosed within a few days and 1 (1.3 %) disclosed after 2 weeks. Previous research has often linked disclosure to length of time since diagnosis (Serovich et al., 2008; Kalichman et al., 2003). The low percentage of full disclosure is almost similar to the one reported in a Tanzanian study by Kilewo et al., (2001) where 83.4% of the study participants had not fully disclosed.

Level of Disclosure

Thirty two (40.1 %) said they had disclosed to their partners only, 27 (33.6 %) had disclosed to a close family member only, 5 (6.3 %) had disclosed to a close family member and extended family member, 2 (2.5 %) disclosed to the public, close family member and to the extended family member, and 1 (1.3 %) had disclosed to a friend only. Results have shown that disclosure is a process and atemporal stage is occupied whereby a positive person manages their disclosure and this entails disclosure to some family members ,while not for others (Norman, Chopra, Kadiyala, 2005). In previous studies, spouses or partners were the relations to whom most women disclosed to, among those who did not disclose spouses were the likely targets for disclosure regardless of HIV status. Close relatives such as parents, siblings and spouses are relations people disclose to due to the mutual relationship and support gain women experience (Mucheto, 2009). It has been suggested that among the tools available in the fight against stigmatisation and discrimination is public disclosure of seropositive status (muula, Mfutso and Bengo, 2005).

The findings that only 2 (2,5%) of the respondents managed to disclose publicly favour the arguments by Muula, Mfutso and Bengo (2005) that such disclosure may potentially harm the clients. They suggested that public disclosure should be accompanied by appropriate individual counselling and preparation of the community to deal with the situation and should have regard for cultural sensitivity after consideration of the risks and benefits to individuals, family and community. As much as health providers may want clients to disclose publicly, they are being reminded that their duty is to the best interest of the patient who has a right to decide to whom to disclose to. Disclosure is being experienced as a complex process and personal matter that entails communication about a potentially stigmatised issue. The low partner disclosure rate finding of 40.1% supports Gruskin, Ahmed and Ferguson's prediction that women in ANC settings appear to be the least likely of any population to choose to disclose to partners.

A total of 16.2 % of HIV positive respondents did not disclose their HIV status, 13 (7 %) had intention to disclose 2.5 % had no intentions of disclosing their HIV status. Those who had intention to disclose reported preferring to disclose their HIV status to their spouses or partners only 5 (6.3 %) and 6 (7.4 %) preferred to disclose to a close family member only. Non disclosure of HIV status was low among HIV positive women in Makoni Urban (16.2 %). The rate of non disclosure in this study is not comparable to the rate noted in Kenya where 31 % of women in VCT and PMTCT programs failed to disclose their HIV status. Regardless of the result HIV status disclosure is of importance in PMTCT programmes as it allows an individual to get support for preventive actions they may decide to undertake.

The above also actually measured client's intention to change their behaviour following PITC. By planning to disclose their HIV results, disclosing results is a behaviour change indicator. Though HIV testing may have been made acceptable accessible by the

routine investigation of women in ANC, the low up take of HIV testing by spouses in Makoni Urban supports the observation noted in a PMTCT programme in an Urban set up in Zimbabwe by Chandisarewa and colleagues in 2007 where it was observed that HIV testing remains unacceptable by male partners.

The variations in time when the respondents disclosed their results supports Maman's observation(2003) that a woman might decide to tell her husband that she is HIV positive soon after her post test counselling and it may take much longer to tell friends and family or she may decide not to do so at all.

It emerged that point blank disclosure, stage setting and indirect disclosure were the methods that some of the respondents reported to use when they are ready to disclose. The finding supports that the methods of disclosure identified by the Ontario HIV Treatment network, (2009) are valid. The respondents disclosed to different people whom they felt comfortable with. The results are similar to Obermeyer and Osborn's findings (2007) that when disclosure takes place it may not be to the partner but to another member of the family or to a friend. The results for the disclosure variable support Rice et al., (2009) and Norman, Chopra and Kadiyala (2005) that women are quite selective in their decision about whom, how and when to disclose. As a result, the overall level of disclosure for the present study sample was low for 71 (88.8%) respondents.

Perceived Quality of PITC Services

For 43 (53.8%) perceived the quality of PITC services to be average. However, some specific areas were rated higher than others. Most respondents (91.1%) for example, reported that information on termination of pregnancy was not given. This gives an impression that the counsellors assume that every pregnancy is wanted yet it may not necessarily be true. A study in Dar es Salam, Tanzania revealed that 10 to 18 out of 1050 HIV positive pregnant women

did not want to carry their pregnancy to term (Kilewo et al., 2001). Such information is, though it might sound culturally unacceptable, might be very important and clients in a similar situation need proper counselling.

Client satisfaction measures, in the developing world can not be a reliable gauge of quality. Clients are prone to over-report feelings of satisfaction to appeal to the data collectors or the facility itself. They may have low expectations or little experience of high quality against an existing scale. Client satisfaction measures for PITC, particularly when clients have an emotionally taxing HIV positive diagnosis may be even more unreliable or prone to emotional input.

The issue of saying yes to HIV test when one did not get all the information that could have led to that decision is an area that needs to be revisited as it may be indirectly robbing the validity of consent given before testing. The issue of informed consent becomes questionable if limited information is provided during pretest information giving.

Providing information to HIV positive pregnant women about the full range of measures that can be taken to reduce the risk of perinatal transmission, as well as information that may help make informed decisions with respect to current and future pregnancies is extremely essential. Omitting some topics during counselling can be a risk for missed opportunities for some women who may not be able to get such information anywhere else besides the health facilities. This finding that some information was not given has favoured the question on the level of information required to insure informed consent and counselling. Many participants in the March 2006 meeting in Canada debated on the issue is the quality of counselling and information about HIV given to pregnant women, not necessarily the increase testing numbers (Canadian HIV/AIDS legal network, 2007).

The findings also show an omission on the requirements of the WHO policy on HIV testing which include giving patients information on the clinical benefit and the prevention benefits of testing, the right to refuse the test, the follow up services that will be offered and in the event of a positive test result ,the importance of anticipating the need to inform anyone at ongoing risk who would otherwise not suspect they were being exposed to HIV infection.(WHO/UNAIDS, 2004). The idea that the conversation with the woman is greater than the test by Spenser (2006) is being valued considering that some respondents have not yet disclosed after consideration that some valuable information was not given to them.

The study results have shown that policy and practice may differ greatly with respect to pretest counselling and informed consent in programmes that offer to test women during pregnancy in Makoni Urban. The respondents have reported not having been given adequate information to assess the risks and benefits of HIV testing for themselves or for their unborn child.

Attendance to support groups enables individuals to be assisted with services such as being equipped with disclosure mechanisms and such services enhance disclosure. A significant number of respondents 58 (72.5%) reported having not received information on support systems yet this is critical in HIV positive issues. Referral for women for psychosocial support was protective against HIV status non disclosure in Makonde study. Low referrals for psychosocial support for HIV positive people was also noted in Tanzania, this likely posed challenges in further support management of positive people.

Respondents were generally satisfied with the privacy offered during their PITC experience. This finding differs from the findings in Tanzania which revealed that there were inadequate confidential places for counselling and that the information system was weak.

There were relatively acceptable waiting times to see counsellor and receive results. Waiting times are an important component of overall PITC quality. Long waiting times, particularly while waiting for an HIV result, may deter clients from learning HIV results. Sixty three (88.7%) of the respondents reported receiving counselling about using condoms during sexual encounters, since unprotected sexual intercourse could lead to HIV transmission. An incidental finding noted that the majority of the respondents were not using condoms because their partners are not being cooperative. The problem was being worsened by the fact that the respondents are all on the more efficacious regimen of ARVs. There is a high probability that these women are at high risk for opportunistic infections and it is quite worrying if the medications would be of any help.

Perceived Quality of PITC Service and Level of Disclosure

The Pearson's correlation coefficient ($r = .193$) was non significant. However, the results show at least some degree of linear relationship between perceived quality of PITC service and Levels of disclosure. There is however need to establish more factors that could be impacting on disclosure among the pregnant women. There is limited literature to compare the present study findings with. However, the result has been successful in establishing that perceived quality of PITC services is not the main factor influencing disclosure.

Theoretical Framework

King's conceptual framework was utilised to guide the conceptualization and analysis of this research study. The study identified that there is a relationship between perceived quality of PITC and disclosure levels. King's assumptions that the strategies used by nurses during interaction with patients, which include teaching, supporting, counselling, guiding and motivating have an influence on the likelihood of goal attainment were confirmed. The majority of the patients 65 (81.3%) at least managed to partially disclose their HIV status

following PITC. The respondents perception of the quality of PITC was however, generally average. Presumably the low level of disclosure could have partially stemmed from the average perceptions held. Majada (2005) who also used King's theory to determine the association between interaction and adherence replacement feeding of infants whose mothers are on the PMTCT programme was also impressed with use of the framework because the findings of her study supported the framework . Kings emphasis for the importance of the interactive process between nurses and clients was supported. Adherence to replacement feeding in Majada's study was attributed to competent counselling on HIV and infant feeding ,and where insufficient and insufficient and inconsistent counselling occurred, non adherence was experienced.

Runyowa (2003) also used Kings theory of goal attainment during his study on the relationship between knowledge on control of aggression and occurrences of aggression in schizophrenic clients. The results of his study supported the importance of Kings concepts of interaction ,transaction, and goal attainment in the control of aggression which was imparted to clients during their interaction with nurses resulted in decreases in episodes of aggression.

Nevertheless, some important information was reportedly not given during counselling sessions in the present study. This may compromise the patient's decision about disclosure. Kings basic assumption is that when a patient is knowledgeable, she decides to disclose and prepares self for the consequences and benefits of disclosure. The missed information during the interaction may have contributed to non disclosure by some respondents. Thirteen respondents (16,2%) had not yet disclosed their HIV status at the time of the study. King emphasised the need for nurses to assess the patient's perceptions through communication and interaction if client agrees on disclosure during counselling but does not value the plan or see it as pertinent to her well being, her baby or partner, she is likely not to disclose. The access to

more information through follow up counselling, that is, repeated nurse –patient interaction, can actually influence disclosure.

Lack of follow up would result in clients not finding any motivation in achieving their set goal. Because disclosure is a process, and clients are unique individuals who have different perceptions about disclosure, nurses do not give up on follow up counselling for those who have not yet disclosed, and meanwhile enrols clients into the PMTCT program and provides comprehensive health education on positive living issues. This becomes a big achievement while the patient is still deciding on disclosure. In conclusion, the concepts in King's Theory (1981) were supported by the study findings.

Implications to Midwifery Practice

In this study, it was identified that HIV positive pregnant women are quite selective on disclosure, decisions in terms of whom to tell, what information to reveal, when to disclose and how to disclose their status. Sowell, Seals, Phillips and Julious (1999) found out that the majority of women had disclosed to some sex partners, close family and friends and health professionals. Muchedzi, et. al., (2008) found out that disclosure to relatives and the community remains low by women participating in the PMTCT program in Urban Zimbabwe.

However, of HIV infection is a difficult issue for some women supporting the need for health education and counselling. Lack of disclosure of HIV positive results to male partners and significant others by pregnant mothers can result in poor adherence to the PMTCT program interventions, and can also limit access to HIV treatment for both the mothers own health and for the reduction of the risk of HIV transmission to the unborn baby.

Because of the complexity and the ongoing nature of HIV infected women's struggle with disclosure issues, counselling support from health educators is critical to help women

realistically appraise their concerns related to disclosure so that they can access needed support and services.

Being able to disclose before delivery, that is before implementation of the infant feeding choice is an important factor to take into account in the prevention of Mother – to – Child Transmission of HIV. Meaningful increase in preventative behaviours by married couples likely requires the involvement and commitment of the male partners. Midwives need to offer services that are male friendly.

PITC is supposed to be an empowering tool that pregnant women should use in decision making in all matters pertaining to reproductive health. Study findings identified that most information was not given to the clients during the pre and post test counselling. Sixty participants (75.1 %) reported that information on planning pregnancy was not given while 73 (91.1 %) reported that information on termination of pregnancy was also not given. This gives an impression that health workers are assuming that every pregnancy is wanted; Termination of pregnancy is an issue that requires adequate information so that clients are well informed of the risk and benefits especially when one is HIV positive(Kilewo et. al., 2001). As much as workload can be a constrain in provision of comprehensive pre and post test information giving effort should be made to cover all the topics according to the national guidelines of counselling and testing.

Improving the quality of care can attract more clients to counselling and testing services. Nursing managers need to critically examine and strengthen all of the elements that support good quality care including supervision ,in-service training ,job aids and feedback systems that reinforce providers” skills, health management information systems, monitoring, and quality assurance activities.

Implications to Nursing Research

Nursing practice should be influenced by research findings. The findings revealed that there is a weak relationship between perceived PITC and disclosure of HIV positive results by ANC mothers. This suggest that there are other factors that are contributing to non disclosure of HIV positive status. Quality of PITC services has been found to have weak linear relationship towards facilitating disclosure among HIV positive pregnant women. In the present study the investigator found out that ten participants were aged 35 years and above with the eldest pregnant mother aged 40 years. It is not recommended for women to fall pregnant after the age of 35 years due to the related complications associated with this age group.

According to the Zimbabwe Inter Censal Demographics survey of 2008, the median ages at first live birth ranged from 17 to 20.3 years for women aged 15 to 49 years. These ages are relatively low and therefore exposed the women to long periods of childbearing after the age of 35 years. The study should be replicated to further confirm the findings. The information from this study may be used to increase the body of knowledge of the nursing discipline with respect to Maternal and Child Health Clinical Specialization. The findings call for further research into why key risk reduction methods to prevent HIV transmission are not widely discussed by counsellors during information giving. Possible explanations could include diluted, out – of – date and conflicting messages about communication to counsellors during trainings. The issue of termination of pregnancy in HIV positive individuals is one example that needs further research.

The discrepancies in information giving on different topics calls for future research that addresses the profile and motivations of counsellors providing PITC services to examine which counsellor characteristics may influence quality. The study revealed that respondents

were counselled by different health professionals, namely qualified nurses, professional counsellor and primary counsellors. The results revealed high perceived quality of PITC but also revealed under performance in counselling about key risk reduction methods, including information on disclosure, infant feeding options, discordant results, safer sexual practices, condom use, cotrimoxazole prophylaxis, and information on reducing risk of infecting others. Counselling guidelines and training curricula should be reviewed and revised to incorporate important messages about all factors of risk reduction.

Implications to Nursing Education

Disclosure issues in HIV are currently topical issues. This study has even revealed that it is important for HIV positive individuals to disclose in order to cope and live positively with HIV and AIDS. However, disclosure levels are generally low. Nurse educators need to strengthen the content of instructional material to student nurses in order to strengthen the chain of survival for HIV positive individuals. There are different cadres in Zimbabwe doing the PITC, namely, nurses, doctors, counsellors, primary care counsellors including students in the respective professions. This calls for teamwork in order to ensure uniformity of instructional material.

Limitations

1. The effects of social desirability bias may be a potential limitation in this study.
2. Carrying out study where pilot study was done could have introduced contamination.
3. The study was also limited in that it relied on self – report and is therefore subject to reporting bias.
4. The time frame for the study was governed by the requirements of the course. If more time was available more clients could have been as a result the sample size of 80 limits generalizability.

5. The instrument was used for the first time in this study and hence could have introduced measurement bias due to inherent flaws.

Strengths of the Study

The strength of this study is its focus on women at particular risk for sexual and vertical transmission of HIV, a particularly important group for midwives to address. The investigation was carried out at 3 different sites within an urban community. This makes the study results generalisable to the community where the study was carried out. The instrument for the independent variable (perceived quality of PITC services) had a reliability co-efficient alpha of .8258. This means that it is a good measure of perceived quality of PITC services.

The findings of the present study help to dispel certain myths and misconceptions regarding PITC services in Zimbabwe. Most importantly, the study contributes to the evidence base by documenting and quantifying the quality of PITC service. Study findings also contribute to filling gaps in the literature about PITC in general. Use of client satisfaction adds credit to the study findings.

Recommendations

1. Further research could be done addressing other factors that may be contributing to the problem of non- disclosure of HIV status among pregnant women.
2. The study could be repeated using a rural setting to determine the situation outside urban areas.
3. The study could be used as a pilot for a larger study.
4. The investigator recommends intensified information giving during pre and post test counselling to all pregnant mothers at all levels of the health delivery system.
5. Policy makers should ensure that efforts are made to involve male partners as early as possible in counselling sessions.

6. Providing follow up counselling can be utilized as a method of enhancing disclosure of HIV results.
7. Further research on HIV positive status disclosure with a relatively representative sample will be needed to determine the outcomes of HIV positive status disclosure.
8. The investigator recommends further analyses of the developed instrument measure quality of PITC. Its reliability coefficient of .8258 is quite encouraging.

Summary

The complexity and ongoing nature of HIV-infected women's struggle with disclosure issues justifies the need for counselling support from health care providers. PITC has been approved as an effective strategy in the effort to combat HIV and AIDS.

The purpose of this study was to examine the relationship between perceived quality of PITC and disclosure among HIV positive antenatal mothers in Makoni Urban. This study utilized King's model to enhance understanding. The model facilitated in the explaining of the role of the interactive process during a provider initiated testing and counselling session and also facilitated explaining the intended goal of disclosure of HIV positive results.

The study utilized the descriptive correlational design. The variables under study were perceived quality of PITC services as the independent variable and disclosure as the dependant variable.

The study included a sample of 80 pregnant women aged between 18 and 40 years who were HIV positive. The study sample was selected using the convenience sampling, a type of non probability sampling method. Data were collected from the study sample using an interview schedule consisting of three sections, the demographic section, the disclosure section and the perceived quality of PITC section. Data analysis was performed in two stages. The first stage involved analysis of data using descriptive statistics and the second stage

involved using inferential statistics namely the Pearson correlation co-efficient to demonstrate the relationship and of perceived quality of PITC service and disclosure.

Although the majority of participants disclosed their test results, partial disclosure was the predominant pattern that emerged for the majority of study participants. Lack of full disclosure by a minority places them at risk of limited ability to engage in preventive behaviours and to access support.

The levels of disclosure from the study are generally low with only 2 respondents having reported public disclosure. This shows that stigma may still be contributing towards low disclosure levels among communities.

To answer the second research question, the study findings demonstrated that the majority of participants' perceptions reflected that the quality of PITC service was average. There is therefore need to strengthen the areas of weakness in identified in the PITC programme.

An incidental finding noted that a considerable proportion of the participants did not know their partner's HIV status. The program efforts should focus on mutual disclosure of HIV test results, by encouraging individuals to ask their partner's HIV status in addition to disclosing their own.

PITC can serve as a catalyst for disclosure of a positive HIV status by HIV positive pregnant mothers. Pregnant women have a high level of interaction with health services and the priority given to pregnancy related services in the scaling up of PITC is very high. Women therefore stand a very high chance to benefit enormously from well informed counselling sessions. Inadequate information giving could therefore negatively affect the purpose of PITC.

The results showed a weak non significant positive relationship ($r=.193$) of perceived quality of PITC and disclosure. This study supported that to a little extent, high quality PITC

facilitates disclosure of HIV positive results. HIV positive pregnant women who perceive the quality of PITC as good or high might be motivated to disclose their HIV status in order to widen their support network.

Quality of PITC service has been shown to weakly correlated with level of disclosure ($r = .193$) towards assisting pregnant women towards disclosure. This implies that there are many other factors that contribute to non disclosure that need further research. It is very important to find out what is it that can actually assist pregnant women to disclose their HIV status. There is no adequate statistical evidence to support the study hypothesis since the results were statistically non significant.

REFERENCE

Aaker, D. (2010). Managing Brand Equity; Retrieved from [http://www.studymarketing.org/articles/Brand-Management/What -is-Perceived Quality](http://www.studymarketing.org/articles/Brand-Management/What-is-Perceived-Quality) on 27/3/2010.

Agha ,Soheil and Mai Do, (2009). The quality of family planning services and client satisfaction in the public and private sectors in Kenya. International Journal for Quality in Health Care, 21 (2) ;87-96 .

Becker, J., Tsague, L., Sahabo, R., Twyman, P. (2009) Provider Initiated Testing and counselling (PITC) for HIV in resource limited clinical settings : Important questions unanswered . Pan African Medical Journal 3:4.

Brou, H., Djohan, G., Becquate, R., Allou, G., Ekouevi, D .K., Viho, I., Leroy, V., Desgrees-du-Lou, A. (2007). When do HIV infected women disclose their HIV status to their male partners and why ? A study in a PMTCT programme ,Abidjan ,4;(12) 342.

Burns, N., Groove, S.K., (2004). Practice in Nursing Research ;Conduct,Critique and Utilization (5th ed.). Elsevier, Saunders.

Canadian HIV AIDS legal network. (2007). Prevention and Protection:Enhancing both HIV testing and human rights.

Cleme-Stone, S., McGuire, S.L., Eigsti, D.G., (2002). Comprehensive Community Health Nursing- Family, Aggregate & Community Practice. (6th ed.). London: Mosby.

Elizabeth Glaser Pediatric AIDS Foundation (EGPAF). (2007). HIV Counselling and Testing in Labour and Delivery .Implementer's guide. PMTCT Program Brief (1) 1-4.

Evans, C ., and Ngirangu, E. (2009). The nursing implication of PITC in Subsaharan Africa. A critical view of new policy guidance from WHO/UNAIDS., International Journal for Nursing Students 46 (5):723-31.

Fitzpatrick, J.J., Whall, A.L. (1996). Conceptual models of Nursing, analysis and application (3rd ed.). Stanford : Appleton and Lange

Geneva: WHO/UNAIDS,(2004)..Policy Statement on HIV testing,.retrieved from <http://www.aidslaw.ca/testing> on 4/4/10.

Government of Zimbabwe .,Zimbabwe Millenium Development goals, 2004 progress report.

Government of Zimbabwe, (2007). Towards universal Access to HIV Prevention, The Zimbabwe Health Sector HIV Prevention Strategic Framework 2007-2010.

Gruskin, S., Ahmed, S., and Ferguson, L. (2008). PITC in Health Facilities-what does this mean for the health and human rights of pregnant women, *Dev World Bioeth*, 8 (1): 23-32 .Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/18315722?Ordinal_pos=1&:tool=entrez system 2.P.E.

Health Canada. (2010). Health care system.,Retrieved from <http://www.hc.sc.gcca.hcs-sss/qual/index-eng.php> on 27/3/2010.

International Council of Nurses. (2009).Nursing Matters, Provider initiated HIV testing and counselling in health care facilities.

International Planned Parenthood Federation (IPPF). (2010). Retrieved from <http://www.ippf.org/en/What-we-do/Quality+of+care+programme.htm> on 27/3/2010.

Joachim, G., and Acorn, S. (2000). Stigma of visible and invisible chronic conditions., Journal of Advanced Nursing, 32 (1),243-248.

Kasenga, F., Byass, P., Emimelin, M., and Hurtig, A. (2009). ,The implication of policy changes on the uptake of a PMTCT programme in rural Malawi. Journal of Global Health Action, 2 .

Kassaye, K.D., Lingerh, W., and Dejene, Y., (2005). Determinants and outcomes of disclosing HIV-positive status to sexual partners among women in Mettu and Gore towns, Illubabor Zone South West Ethiopia. Ethiopian Journal of Health Development, 19 (2) 126-130.

Kilewo, C., Massawe, A., Lyamuya, E., Semali, I., Kalokola, F., Urassa, E., Giattas, M., Temu, F., Karlsson, K., Mhalu, F., and Biberfeld, G.,(2001) “HIV counselling and testing of pregnant women in Sub-Saharan Africa: experiences from a study on prevention of mother –to-child HIV-1 transmission in Dar es Salam, Tanzania.”retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/11744835>, on 25 /05 /10.

Maman, S., and King, E. (2008). Changes in HIV testing and Implications for women. J .Midwifery Women’s Health.May-Jun 2008; 53(3);195-201. Retrieved from <http://www.nlm.nih.gov/pubmed.18455> 093?ordinalpos=1&tool=enterez system 2.P.E.

Maman, AIDS and Behaviour (2003); 7(4):373-382.retrieved from the Columbia Clinical Manual.

Mapunjo, S., Urassa, D .P (2007).”Quality standards in provision of facility based HIV care and treatment: a case study from Dar es Salam region, Tanzania. East African Journal-Public Health, 4(1):12-8.,retrieved from <http://www.ncbi.nlm.nih.gov/pubmed> on 25/05/10.

Ministry of Health and Child Welfare. (2006). Prevention of Mother to Child Transmission of HIV in Zimbabwe , Second Edition, a trainer’s manual for the intergrated approach to HIV and AIDS prevention ,care treatment and follow up for pregnant women,their babies and families. Harare, Zimbabwe.

Muchedzi, A., Chandisareva, W., Keatinge, J., Chibanda, L.S., Mbizvo, E., Woelk, G., and Shetty, A (2008). Disclosure and stigma among women participating in the Prevention

of Mother to Child Transmission of HIV programme in Urban Zimbabwe., Abstract number CDC 112, Zimbabwe AIDS Prevention Project, Harare ,Zimbabwe .

Mucheto, P., Nyamayaro, W., and Jones, D., (2009)., Determinants of non disclosure of HIV status among women attending the PMTCT programme in Makonde District, Department of Community Medicine, College of Health Sciences, Harare, Zimbabwe.

Muula, A.S, Mfutso, and Bengo, J.M (2005).”When is public disclosure of HIV seropositivity acceptable?” retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/15921345>, on 25/05/10 .

Ndirangu, E., Evans, C(2009)., ”The nursing implications of routine provider initiated HIV testing and counselling in Sub-Saharan Africa: a critical review of new policy guidance from WHO/UNAIDS. International Journal of Nursing Students:2009;May;46(5) 723-31., retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/19159879> on 22/05/10.

Norman, A., Chopra, M., Kadiyala, S.,(2005)”HIV disclosure in South Africa;Enabling the Gateway to Effective Response.’retrieved from <http://programs.ifpri.org/renewal/pdf/RENEWALSADisclosure.pd.f>. on 25/05/10.

Norman, A., Chopra, M., Kadiyala, S.,(2005) HIV Disclosure in South Africa : Enabling the Gateway to Effective Response ;International Food Policy Research Institute (IFPRI). Retrieved from <http://www.google.co.zw> on 4/4/2010.

Obermeyer, C. M. ,Osborn, M. (2007). The utilization of testing and counselling for HIV, A review of the social and behaviourall evidence. American Journal of Public Health, 97 (10) .

Perez, F.,Zvandaziva, C., Englesmann, B., Dabis, F., (2005). Acceptability of Routine HIV Testing”Opt Out” in Antenatal Services in Two Rural Districts of Zimbabwe.. Journal of Acquired Immune Deficiency Syndrome, April 2006 41;(4) 514-520.

Plus News, Global (June 2008) Routine HIV testing boosts uptake, Kampala, Uganda.

Polit, D.F., Hungler, B.P.,(1999) Nursing Research. (6th ed.). Philadelphia: Lippincott.

Rice, E., Comulada, S., Green, S.,Arnold, E. M ., Rhootherum-Borus. (2009). ‘Differential Disclosure Across Social Network Ties Among Women Living With HIV. J AIDS Behav 13:1253-1261.

Sowell, R.L., Seals, B.F., Phillips, K.D., Julious, C.H., (2000) Disclosure of HIV infection ;How do women decide to tell?, Retrieved from <http://her.oxfordjournals.org./cgi/content/full/18/1/32> on 4/4/2010.

The Ontario HIV Treatment Network.,(2009), HIV Disclosure Rapid Review response. Retrieved from <http://www.google.co.zw> on 4/4/2010.

The Zimbabwe Elizabeth Glaser Pediatric Foundation (EGPAF), (2007),. International Family AIDS initiatives (FAI) Quarterly bulletin

Thomas, B. E., Dewan, P. K., Vijay, s., Thomas, A., Chauhan, L.S, Vedachalam, C., Vaidyanathan, P., Swaminathan, S., (2009). Perception of TB patients on PITC ,a study from South India, December 2009 , 21:4, (12) e 8389. Retrieved from <http://www.nih.gov/pubmed/20041167> on 27/3/2010.

Wisconsin Hospitals Accountable for quality., (2010) What is Quality in Health care .Retrieved from <http://www.wicheckpoint.org/What Quality Health Care.aspx> on 27/3/2010.

Xu, F., Kilmarx, P.H., Supawitkul, S., Manopaiboon, C., Yanpaisan, S., Limpakarnjanarat, K., Chaikummao, S., Mock, P.A., Young, N.L., and Mastro, T.D., (2002). Incidence of HIV-1 Infection and effects of clinical based counselling on HIV preventive

behaviours among married women in Northern Thailand., Journal of Acquired Immune Deficiency Syndrome, 2002,29;284-288.

Zimbabwe ministry of Health and Child Welfare, (2007), National HIV Testing and Counselling, Training course for health care workers ,Zimbabwe.

Zimbabwe Ministry of Health and Child Welfare (2007)., Zimbabwe Peadriatic Art Training Manual for Health Care Workers, Harare, Zimbabwe .

Zimbabwe Ministry of Health and Child Welfare, (2007) , National HIV Testing and Counselling Training manual .

Zimbabwe Ministry of health and Child Welfare.(2008).Towards Universal access to HIV and AIDS Prevention, treatment ,care and support, The National HIV Testing and counselling strategic plan 2008-2010.

Zimbabwe Ministry of Health and Child Welfare., (2006). Prevention of Mother to Child Transmission of HIV (PMTCT) , Annual Report.

Zimbabwe Ministry of Health and Child Welfare. (2007). The Zimbabwe Program for Prevention of Mother to Child Transmission of HIV (PMTCT) Annual report .

APPENDIX A

INFORMED CONSENT FORM

Good morning/ afternoon

My name is Margaret Nyasha Majena, I am a student with the University of Zimbabwe. I am carrying out a research to determine the relationship between perceived quality of Provider Initiated Testing and Counseling (PITC) service and disclosure among HIV positive antenatal mothers.

I am requesting you to participate in this study whatever we are going to discuss here is between the two of us and no names will be mentioned. Codes will be used to ensure confidentiality. The interview will last approximately 25 minutes. You are free to withdraw from the interview at any point during the interview. Your decision will not affect the quality of the care given to you in this department.

The information obtained will positively influence health education given to HIV positive antenatal mothers to enhance disclosure. Though there is minimum risk in this study, you might have psychological trauma as you will be asked to recall when you were diagnosed HIV positive.

For any queries or information, contact me through the University of Zimbabwe, college of Health Sciences, Department of Nursing Science, Box A 178, Avondale, Harare
Phone 04- 707707 extension 2221.

If you are agreeing to the above request, may you please sign below;

Participant's signatureDate.....

Witness :Date:.....

APPENDIX B

FOMU ROKURATIDZA KUBVUMA KUBATSIRA

Mangwani / Masikati

Ini ndinonzi Margaret Nyasha Majena. Ndiri mudzidzi pachikoro cheUniversity of Zimbabwe. Ndiri kuita ongoro pamusoro pechirongwa chekuongororwa kweropa remadzimai akazvitakura kuhutachiwana hwe HIV, uye zve nekuongorora kubudisa pachena kwavanozoita kunevamwe vanhu zvakanikwa muongororo yeropa. Ongororo iyi ichatarisazve maonere enyu kuti chirongwa ichi chirikubatsira madzimai zvakadii kubudisa pachena zvakanikwa muongororo yeropa rawo. Ongororo iyi yakanangana nemadzimai akazvitakura arikurarama nehutachiwana hwe HIV .

Ndirikukumbira kuti muve pachirongwa cheongororo iyi. Ndinokuvimbisai kuti zvatichataura pano zviri pakati pedu tirivaviri. Hakuna mazita achanyorwa. Tichashandisa manhamba panzvimbo dzemazita. Ndichakubvunzai mibvunzo kwenguva ingaita maminiti makumi maviri nemashanu. Makasununguka kubuda kana kuramba kupa umbowo panguwa ipi zvayo uye hazvikanganisi marapirwo enyu pano. Umbowo huchawanikwa huchabatsira kuwandudza dzidziso nezvekuongororwa kweropa hutachiwana hwe HIV uye zvichabatsira kuwandudza kubudisa pachena zvakanikwa muongororo yeropa kunevamwe vanhu.

Hapana kukuwara kwamungaita muchirongwa ichi asi munogona kuve nekushushikana mupfungwa nekuti muchabvunzwa kuti murangarire musi wamakudzwa kuti munehutachiwana hweHIV. Kana paine zvimwe zvamungada kunzwisisa kana kubvunza maererano neongororo iyi munokwanisa kundibata pakero inoti University of Zimbabwe, College of Health Science, Department of Nursing Science, Box A 178, Avondale, Harare, kana panhamba dzerunhare dzinoti 04-707707 extension 2221.

Kana muchibvuma ndinokumbira kuti muratidze nekusayina apa

Runyoro rwemubvuzwi.....Date

Mufakazi:.....Date.....

APPENDIX C

DEMOGRAPHIC DATA QUESTIONNAIRE

1. What is your age?

2. What is the highest level of education that you attended?

- a. Never went to school
- b. Primary
- c. Secondary
- d. College/University
- e. Don't know

3. What is your marital status?

- a. Single
- b. Married
- c. Divorced
- d. Co-habiting
- e. Separated
- f. Widowed

4. What is your religion?

- a. Christian
- b. Traditional
- c. Moslem
- d. Hinduism

5. Whom do you live with?

- a. Husband and children
- b. Husband/partner only
- c. Inlaws
- d. Own parents
- e. Alone

Other relative(specify)

6. How did you receive pre-test information?

- a. Group counselling
- b. Couple counselling
- c. One on one session

7. Who counselled you?

- a. Qualified nurse
- b. Professional counsellor
- c. Primary counsellor
- d. Doctor
- e. Student nurse

8. For how long have you been living with HIV since you got to know your HIV status?

- a. Less than one week
- b. One week to one month
- c. More than one month to 6 months
- d. More than 6 months to 1 year
- e. More than one year

APPENDIX D
DISCLOSURE QUESTIONNAIRE

9. Have you disclosed your HIV status?

- a. Yes
- b. No

10. If yes on number 9, when did you disclose your HIV status?

- a. On same day after receiving the results
- b. Within a few days
- c. After one week
- d. After two weeks
- e. After one month plus
- f. N/A (not yet disclosed)

11. If yes on number 9, to whom did you disclose?

- a. close family member only
- b. Partner only
- c. Friend only
- d. Close family member and extended family member
- e. Public, close family member and extended family member
- f. N/A(not yet disclosed)

12. If no on number 9, do you intend to disclose?

- a. Yes
- b. No
- c. N/A (already disclosed)

13. To whom do you intend to disclose?

- a. close family member only
- b. Partner only
- c. Friends only
- d. Close family member and extended family member
- e. Public, close family member and extended family member
- f. N/A (already disclosed)

14. When do you intend to disclose?

- a. Soon
- b. I am still to decide
- c. Will never disclose
- d. N/A already disclosed

15. If already disclosed, what information did you tell the person you disclosed to?

- a. Mentioned the element of HIV (I am HIV positive)
- b. Did not mention HIV (I am sick/I have lowered immunity etc.)

16. If not yet disclosed, how do you intend to disclose?

- a. Point blank (I am positive)
- b. Buffering (use of third party to disclose)
- c. Seeking similar (position self with people who are more likely to be accepting)
- d. Stage setting (will ask HIV status of other person first)
- e. Indirect disclosure (I will use hints)
- f. N/A already disclosed

APPENDIX E

PERCEIVED QUALITY OF PITC SERVICES QUESTIONNAIRE

17. How clearly did the counsellor explain what to expect during your visit concerning counselling and testing?

- a. Clearly
 - b. Uncertain
 - c. Not clear
- | |
|--|
| |
| |
| |

18. How do you feel about the amount of time you spent waiting to see your counsellor?

- a. Acceptable
 - b. Undecided
 - c. Too long
- | |
|--|
| |
| |
| |

19. How prepared were you to voluntarily want to get tested after the information giving session?

- a. Readily prepared
 - b. Prepared
 - c. Undecided
 - d. Unprepared
- | |
|--|
| |
| |
| |
| |

20. How do you feel about the amount of time you spent waiting for your HIV results.

- a. Acceptable
 - b. Undecided
 - c. Too long
- | |
|--|
| |
| |
| |

21. How do you feel about the amount of time you spent speaking with your counsellor after you received your HIV test results.

- a. Acceptable
 - b. Undecided
 - c. Too long
- | |
|--|
| |
| |
| |

22. How prepared did you feel talking to your counsellor about your HIV test results?

- a. Prepared
 - b. Undecided
 - c. Unprepared
- | |
|--|
| |
| |
| |

23. How comfortable did you feel talking to your counsellor about your HIV test results?

- a. Comfortable
- b. Undecided
- c. Uncomfortable

24. How clearly did the counsellor explain your HIV test results to you?

- a. Clearly
- b. Undecided
- c. Unclearly

25. How satisfied were you with the privacy of the counselling and testing sessions?

- a. Satisfied
- b. Undecided
- c. Not satisfied

26. Please comment on the usefulness of information on the following areas covered during information giving before testing and after receiving HIV test results

Key: 0 = Useless, 1 = Somewhat useful, 2 = useful, 3 = very useful, 4 = extremely useful, 5=N/A(Information was not given).

	0	1	2	3	4
Pre-test information Giving					
a. Explanation on the importance if testing and counselling					
b. Knowledge and information on HIV and AIDS decision making plans on the following					
c. Planning pregnancy					
d. Terminating pregnancy					
e. Delivery options					
f. Entering into ARV programme					
g. Infant feeding options					
h. Preventing re-infection or spread of infection					
i. Disclosure of HIV status					
j. Psychosocial support needs					
k. Discordant results					
l. HIV testing					

27. Post test information Giving

	0	1	2	3	4
a. Antenatal care					
b. HIV and AIDS issues					
c. Disclosure of HIV status PMTCT issues					
d. Condom use					
e. Safer sexual practices					
f. Delivery plans					
g. Infant feeding options					
h. Contrimoxazole prophylaxis					
i. ART prophylaxis Positive living issues					
j. Nutrition					
k. Exercise					
l. Prompt medical attention					
m. Stress management					
n. Support systems					
o. Reducing the risk of infecting others					
p. Treatment for sexually transmitted infections					
q. Family planning					
r. HIV testing for her partner					
s. Delivery at health institution					
t. Follow-up of HIV exposed infants					

Thank you for your time.

APPENDIX F

NHOROWONDO YEMURWERE

Chikamu ichi chinobvunza zvakanangana neupenyu hwenyu.

1. Mune makore mangani?

2. Makadzidza kusvika rugwaro rwupi?

- a. Handina kuenda kuchikoro
- b. Kupuraimari
- c. Kusekondari
- d. Kukoreji/kuyunivesiti
- e. Handichaziva

3. Makamira sei panyaya dzekuroorwa?

- a. Handina kuroorwa
- b. Ndakaroorwa
- c. Takarambana
- d. Takangogarisana
- e. Takasiyana
- f. Ndirichirikadzi

4. Munonamata chitendero chipi?

- a. Chikirisitu
- b. Chivanhu
- c. Chichawa
- d. Chihindu

5. Munogara nani?

- a. Murume wangu nevana
- b. Murume wangu chete
- c. Hama dzemurume
- d. Vabereki vangu
- e. Ndega

6. Makawana sei dzidziso yezvokuongororwa kweropa hutachiwana hwe HIV

- a. Takadzidza takawanda
- b. Takadzidziswa ini nemurume wangu
- c. Ndakadzidziswa ndiripangu ndega

7. Ndiani akakurukura nemi pavanotevera

- a. Mukoti
- b. Professional counselor

- c. Primary counselor
- d. Chiremba
- E Mudzidzi wehukoti

8. Maane mwedzi mingani muchirarama nehutachiwana hweHIV kubva pamakaziwa kuti munehutachiwana hweHIV.

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APPENDIX G

RUZIVO RWEKUITA NEZVEKUBUDISA PACHENA ZVAKAWANIKWA MUROPA.

9. Mune wamakataurira here kuti munehutachiwana hwe HIV?

- a. Hongu
- b. Kwete

10. Kana mati hongu panamba 9, makataura rini?

- a. Musi wandakaziva kuti ndine hutachiwana
- b. Kwapfuura mazuva mashomashoma
- c. Kwapera vhiki
- d. Kwapera mavhiki mairi
- e. Kwapera mwedzi kupfura
- f. N/A (handisati ndataura)

11. Kana mati hongu panamba 9, makataurira ani?

- a. Hama yepedyo chete
- b. Murume wangu /wandirikufambidzana naye chete
- c. Shamwari yangu chete
- d. hama dzepedyo nevamwewo vehukama
- e. ruzhinji, hama dzepedyo, nevamwewo vehukama
- f. N/A (handisati ndataura)

12. Kana mati kwete panamba 9, munotarisa kuti muneva muchaudza here?

- a. Hongu
- b. Kwete
- c. N/A (ndakataura kare)

13. Munotarisa kuti muchaudza ani?

- a. Hama yepedyo chete
- b. Murume wangu / wandirikufambidzana naye chete
- c. Shamwari yangu chete
- d. hama dzepedyo nevamwewo wehukama
- e. . ruzhinji,hama dzepedyo,nevamwewo vehukama
- f. N/A (ndakataura kare)

14. Munotarisa kuvaudza rini?

- a. Manjemanje
- b. Ndichambofunga
- c. Handimboudza munhu
- d. N/A(ndakataura kare)

15. Kana makatotaura nezvazvo makataura muchiti kudii?

- a. Ndakataura kuti ndine utachiwana hwe HIV
- b. Ndakangotaura kuti ndirikurwarw/kuti masoja emuwiri mangu adzikira etc

16 Kana manga musati mazviudza munhu, munotarisa kuti muchazvibudisa pachena sei?

- a. Ndichati ndakawanikwa kuti ndinehutachiwana hwe HIV
- b. Ndichato kumbira kuti mumwe munhu anditaurirewo
- c. Ndichatoenda panevanhu vanonzwisisa dambudziko rangu.
- d. Ndichatangirawo kure nekumbobvunza wandichaturira kuti iye ropa rake rakamira sei
- e. Ndinezvandicharatidza nazvo
- f. N/A (ndakataura kare

APPENDIX H
MIBVUNZO YAKANANGANA NEMAONERO ENYU ECHIRONGWA
CHEKURUDZIRO YEKUONGORORWA KWEROPE HUTACHIWANA HWE HIV
KUMADZIMAI AKAZVITAKURA.

17 Vakakurukura nemi wakatsanangura zvakadii pamusoro pezvamainzi mutarisire kuitirwa pakuongororwa kweropa?

- a. Vakanatsotsanangura
- b. Handichanatsogona kusarudza
- c. Havana kunatso tsanangura

18 Munoono sei nezvenguwa yakapera makamirira counselor

- a. Yanga yakanaka
- b. Handichanatsi kugona kusarudza
- c. Yakanga yakarebesa

19 Makanga magadzirira zvakadii pamakabvuma mazvipira kuongororwa ropa renyu, mapedza kuwana dzidziso?

- a. Ndakanga ndanatsogadzirira
- b. Ndakanga ndagadzirira
- c. Handichanatsogona kusarudza
- d. Ndanga ndisina kunatsogadzirira

20 Munoono sei nezvenguwa yakapera makamirira kuudzwa zvawanikwa muongororo yeropa renyu?

- a. Yanga yakananga
- b. Handichanatsogona kusarudza
- c. Yanga yakarebesa

21 Munoono sei nezvenguwa yakapera muchikurukura nacounselor mabva kuudzwa kuti munehutacjiwana hweHIV.

- a. Yanga yakananga
- b. Handichanatsogona kusarudza
- c. Yanga yakarebesa

22 Makanga magadzirira zvakadini kutambira zvakawanikwa muropa mabva kukurukura nacounselor?

- a. Ndakanga ndagadzirira
- b. Handichatsogona kusarudza
- c. Yakanga yakarebesa

23 Makanzwa kusununguka zvadini kutaura nacounsellor nezvekuti ropa renyu rakawanikwa riine hutachiwana?

- a. Ndakanga ndakasununguka
- b. Handichazivi
- c. Ndanga ndisina kumbosununguka

24 Ko councillor akatsanangura vakadini nezvekuwanikwa kweropa renyu riine hutachiwana hweHIV?

- a. Akanatsa kutsanangura
- b. Handichazivi
- c. Haana kunatsonditsanangurira

25 Makagutsikana zvakadini nenzvimbo yamakatarisirwa nekutaurwa nemi?

- a. Ndakagutsikana
- b. Handichanatsi kuziwa
- c. Handina kugutsikana

26 Zvamakaudzwa panezvinotevera zvakakubatsirai zvakadini?

Zvamakaudzwa muchikurudzirwa kuongororwa ropa	0	1	2	3	4
a. Tsanangudzo yekukosha kwekuongorororwa ropa hutachiwana hweHIV.					
b. Ruzivo nedzidziso pamusoro peHIV ne AIDS Kuita sarudzo panezvinotevera					
c. Kuronga pamuviri					
d. Kubviswa kwepamuviri					
e. Sarudzo panguwa yekusununguka					
f. Kupinda muchirongwa chema ARV					
g. Sarudzo yekuchengetedza mwana					
h. Kudzimirra kuwana humwe hutachiewana kana kutapurira vamwe vanhu hutachiwana					
i. Kubudisa pachena zvawanikwa muongororo yeropa					
j. Tsigiro yamunowana kubva kunevehukama nevenharaunda.					
k. Kusiyana kwezvinowanikwa muropa pakati pemurume nemukadzi vanosangana pabonde					
l. Kuongororwa kweropa hutachiwana hweHIV					

27 Zvamakatsanangurirwa mapedza kuudzwa kuti ropa renyu rawanikwa riine hutachiwana hweHIV

	0	1	2	3	4
a. Zvinoitwa kusikero					
b. Dzidziso nezve HIV ne AIDS					
c. Kubudisa pachena zvakawanikwa muongororo yeropa					
d. Kushandisa makondomu					
e. Kudzivirira pabonde					
f. Kuronga nezvepakusunguka					
g. Sarudzo yekuchengetedza mwana					
h. Zvekunwa mushonga inonzi cotrimoxazole					
i. Kunwa mushonga inonzi ART Kurarama nehutachiwana hweHIV					
j. Kudya kwakanaka					
k. Exercise					
l. Kukurumidza kutsvaga rubatsiro kuchipatara					
m. Kugona kuzvibata kana paita zvinoshungurudza					
n. Kunowanikwa rubatsiro panguva yekurarama nehutachiwana					
o. Kudzikisa njodzi yekutapurira vamwe hutachiwana					
p. Kurapwa kwezvirwere zvepabonde/njovhera					
q. Kuronga mhuri					
r. Kuongororwa ropa kwemumwewenyu wepabonde kuti harinawo here utachiwana hweHIV					
s. Kusunungukira kuchipatara					
t. Kuzobatsirwa kwevana vakabarwa nanamai vanehutachiwana hweHIV					

Maita zvenyu nenguwa yamazvipira kukurukura neni .

APPENDIX I

BUDGET AND ITS JUSTIFICATION

The researcher chose Makoni Urban because it is the biggest district in Manicaland with 53 referral to the General Hospital, as well as two city council clinics. This means widening the opportunity of getting more subjects to interview within the stipulated time frame of data collection. The investigator has reliable accommodation in Rusape and all the three sites are within a 10 km radius. This means reduction in transport costs and time wastage for the investigator. Funds would be needed for stationery, typing and photocopying.

Proposed budget

<u>Activity</u>	<u>Cost In Us Dollar</u>
Stationery	\$20.00 (Bond 2 rims, 5 exercise books, 3 pens)
Internet services	\$ 50.00
Typing services	\$ 60.00
Photocopying	\$ 80.00
Binding	\$ 100.00
TOTAL	\$ 310.00

APPENDIX J

PROPOSED TIME FRAME – TABLE OF RESEARCH ACTIVITIES

January to February 2010	Writing research proposal
March 2010	Data collection
April to May 2010	Data analysis and interpretation