

**EXPERIENCES OF HIV POSITIVE CLIENTS DEFAULTING ISONIAZID
PREVENTIVE THERAPY (IPT) IN KING WILLIAMS TOWN AREA
UNDER THE BUFFALO CITY MUNICIPALITY IN THE EASTERN CAPE
PROVINCE**

BY

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(Community Nursing Science)

In the Faculty of Science and Agriculture School of Health Sciences,
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DECLARATION

I, Nelisa Colleen Williams, hereby declare that the research project entitled: “Experiences of HIV positive clients defaulting Isoniazid Preventive Therapy (IPT) in King Williams Town area under the Buffalo City municipality in the Eastern Cape Province” submitted to the University of Fort Hare for the Master’s Degree in Community Health has never been previously submitted by me for a degree at this or any other university, that this is my own work in design and execution and that all material contained herein has been duly acknowledged.

Signature

Date

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ABSTRACT

This qualitative study using a phenomenological design, aimed at exploring and describing and exploring the experiences of HIV positive clients defaulting Isoniazid Preventive Therapy services in the Bhisho Primary Health Care Services. The emphasis was on the factors leading clients to default.

An in- depth unstructured face to face interviews were done on 14 participants from 4 clinics or facilities under Bhisho Primary Health Care Services. From the respondents' responses it can be noted that work and family related issues, ignorance of patients, side effects, and negligence of nurses and denial of HIV status were identified as reasons for defaulting. Having knowledge about the treatment and health providers' attitudes to patients also played a role in patients defaulting their treatment.

Many suggestions were then put forward by the respondents to curb defaulting among patients. These included the use of text message reminders, not to discrimination HIV patients because of their status, to use consulting rooms for privacy and also nurses and caregivers to control their attitudes when dealing with patients.

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I owe my gratitude to the Almighty Lord for giving me such an opportunity and to see me through it all.

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CHAPTER 1

INTRODUCTION

1.1 Background

Preventive therapy (PI) against tuberculosis is defined as the use of one or more anti-tuberculosis drugs given to individuals with latent *Mycobacterium tuberculosis* infection to prevent progression to an active disease. HIV infection is the most powerful risk factor for the progression of tuberculosis from latent infection to an active disease. HIV infection is said to be the major cause of the large increase in the incidence of TB in any population with a high HIV prevalence over the past decade (WHO, 2009:3).

According to the (Department of Health, 2010:3), the dramatic spread of the HIV epidemic throughout sub-Saharan Africa in the past decade has been accompanied by a fourfold increase in the number of TB cases registered by National TB programmes. Strategies to control TB must now include interventions to reduce HIV infection.

It is estimated that around 70% of new adult cases of TB in South Africa are co-infected with HIV (DoH, 2010:3). Tuberculosis is the most common cause of morbidity and mortality among HIV-infected persons in South Africa and studies have shown that TB accelerates HIV disease progression. Therefore, TB preventive therapy among HIV-infected persons should be offered to people living with HIV and AIDS.

The DoH (2010:3) mentions that within the trials done, they have shown that maximum benefits from TB preventive therapy are achieved in HIV-infected persons with evidence of tuberculosis infection as demonstrated by a positive tuberculin skin test. In these patients, the risk of developing TB is prolonged. However, benefits have also been shown among HIV-infected person in general, regardless of their tuberculin test results.

It is essential to exclude active TB in every client prior to starting IPT. This is crucial in order to avoid giving one anti TB drug (monotherapy) to clients with TB disease who require a full treatment regimen (DoH, 2010:3).

When HIV positive clients visit a clinic they are screened for active TB. If there are no signs and symptoms of TB, they are treated with isoniazid 300mg, daily for 6 months as prophylactic treatment (DoH, 2010:3).

Despite this preventive therapy, most HIV positive clients on INH (Isoniazid) prophylaxis do not visit the health centers for their follow up treatment, and a number of HIV positive clients still die of TB, as indicated in Buffalo City Metropolitan Quarterly Review, 2013.

1.2. Problem statement

Tuberculosis is the most common cause of morbidity and mortality among HIV-infected persons in South Africa. Studies have shown that TB accelerates HIV disease progression. Therefore, TB preventive therapy should be offered to people living with HIV and AIDS. While TB preventive therapy may not reduce the incidence of tuberculosis in the community, but it can prevent morbidity and mortality attributable to TB at an individual level (DoH, 2010:3).

The researcher has observed that according to the records and the information given at the HIV data verification meetings for the Bhisho sub-sub district that these clients are not returning for the prophylactic treatment (Data unpublished, Buffalo City Metropolitan Municipality Quarterly Reviews, 2013). The concern of the researcher is that these clients are likely to develop TB and resistance to TB drugs containing Isoniazid. This can also lead to Multi Drug Resistance (MDR) or Extensive drug resistance (XDR) TB. This will increase mortality rate due to TB in spite of the TB programmes which are aiming at decreasing TB mortality rates.

The researcher had decided to undertake this study because the experiences of these clients may indicate the reasons for them to default TB prophylactic treatment. Furthermore, these reasons might provide new strategies for improving adherence of Isoniazid Preventive Therapy.

1.3 Aim of the study

The aim of the study was to explore and describe the experiences of HIV positive clients defaulting IPT services at the Bhisho Primary Health Care Services with the aim of recommending possible strategies that can be used to prevent isoniazid default.

1.4 Research objectives

The objectives of this study were:

- To explore and describe the experiences of HIV positive clients defaulting IPT in Bhisho Primary Health Care Services in the Eastern Cape Province.
- To determine possible strategies that can be used to prevent isoniazid (INH) default at the Bhisho Primary Health Care Services.

1.5 Research questions

The research questions for this study were:

- What are the experiences of the HIV positive clients defaulting IPT at the Bhisho Primary Health Care Services of the Eastern Cape Province?
- Which strategies can be used to prevent Isoniazid (INH) default at the Bhisho Primary Health Care Services?

1.6 Significance of the study

The benefits of the study may be the improvement of the adherence to IPT services. This may decrease the morbidity and mortality rates of HIV positive clients by maintaining clients with no signs and symptoms of TB. The policy makers may improve the policies with regards to IPT service management.

The research might also help to reduce the financial burden of TB drugs on the country's economy. These recommendations could provide policy makers with information to inform TB control services which could improve adherence. Currently there is no known indicator to monitor defaulter rate of Isoniazid in the District Health Information System. The department may also appreciate the benefit of having the defaulter rate of ionized monitored in HIV positive clients.

1.7 Research methodology

In this chapter a brief discussion on research methodology applied as provided, a more in- depth approach is described in chapter 3.

1.7.1 Research design

In this study, a qualitative approach with a phenomenological design was used. The design used is descriptive and exploratory in nature and it aimed at exploring the experiences of HIV positive clients on IPT regarding Isoniazid Preventive Therapy in King Williams Town area under the Buffalo City Municipality in the Eastern Cape Province.

1.7.2 Study population

The population for the study was all HIV positive clients defaulting IPT at Bhisho Primary Health Care Services in King William's Town.

1.7.3 Target population

Target population for this study was all HIV positive clients defaulting IPT at Tyutyu, Ginsberg, Bhisho Gateway and Sweetwater clinics.

1.7.4 Sampling

The researcher used the non-probability sampling with a purposive method. The client records available at the clinics from 2000 – 2014 were used to identify the clients that defaulted in the IPT program as the sample. The intention of the researcher was to interview at least 15 clients although data saturation was reached at 14 clients.

1.7.4.1 Inclusion criteria

Human- Immuno – Deficiency Virus (HIV) positive clients, males and females between the ages of 18 and 40 years with negative smear TB sputum, defaulting IPT, mentally stable and willing to participate in the research study were included in the study.

1.7.4.2 Exclusion criteria

In the study the researcher excluded HIV positive clients with positive smear TB sputums, children, those with psychiatric diseases and HIV positive with dementia.

1.7.5 Pilot study

According to Polit and Beck (2008:761), a pilot study is a small scale, or trial run, done in preparation for a major study.

A pilot study was conducted at Breidbach clinic using HIV positive clients, males and females between the ages of 18 and 40 years with negative smear TB sputum, defaulting IPT, mentally stable and willing to participate in the research study.

The number of participants involved in the pilot study was six (6). They were interviewed using the interview guide. Probing questions were guided by the client's responses.

Pilot study was conducted to assist the researcher to master interviewing skills and to check the relevance and the effectiveness of the interview guide (Polit & Beck, 2008:761).

1.7.6 Data Collection

The method of data collection for this study was an in-depth unstructured face to face interview. In-depth interviews allow the participants to describe their lived experiences and the meaning of events taking place in their lives. An interview guide was used to conduct the interview. The participants were asked questions and probing questions depended upon their responses to the main questions (Brink, 2009:70).

An audio tape-recorder was used to obtain the information from the participants and a notebook pad was used for field notes. Data was transcribed verbatim from the audio tape. A good working relationship with the participants was developed. Trust and rapport was attained by using sound communication skills, empathy and genuine acceptance (Brink, 2009:70).

1.7.7 Data analysis

Brink (2009:70) maintains that data analysis entails categorizing, ordering, manipulating, summarizing the data and describing them in meaningful terms.

After each interview with a participant data was transcribed then analyzed by listening to the tapes again and again to gain full understanding of what the participant was saying and noting down important points such as pauses of the client, highs and low, when she/he sighed. This attributed meaning and assisted the researcher to interpret what the phenomena meant. During this process themes were generated (Brink, 2009:70).

1.7.8 Trustworthiness

Trustworthiness is a way of ensuring data quality, based on the model of Lincoln and Guba (1985). Holloway (2008) identified the following principles to demonstrate the trustworthiness of the research.

1.7.8.1 Conformability

To address the matter of accuracy and appropriateness of data, the researcher used conformability by going back to the participants with the data and findings as a means of checking the trustworthiness of the data. This afforded an opportunity to ascertain factual accuracy and also confirmed or disconfirmed the researchers' understanding by the participants.

1.7.8.2 Credibility

To ensure credibility, each person who was approached was given an opportunity to refuse to participate in the study. This ensured that the data collection sessions involved only those who were genuinely willing to take part and were prepared to offer data freely.

1.7.8.3 Dependability

This study safeguarded dependability by ensuring that the process within the study was reported in detail, thereby enabling a future researcher to repeat the work and to obtain similar results. The research design may be viewed as a "prototype model" so as to enable readers of the research report to develop a thorough understanding of the methods and their effectiveness (Shenton, 2004:66).

1.7.8.4 Transferability

Transferability refers to the ability to apply the findings in other context or to other participants (Brink, 2012:173). It is also called "fittingness" which refers to the probability that the findings have the same meaning to others in similar situations (Speziale & Carpenter, 2011:97). The researcher chose purposive sampling consisting of HIV positive clients defaulting Isoniazid Preventive Therapy, the clients were from different

clinics, different ages and different back grounds. Description of the research methodology was done, setting the context of research and literature control.

1.7.9 Ethical considerations

The researcher in this study ensured that ethics were considered, that the rights of the subjects are not infringed. Informed consent forms were obtained before the research began. Formal ethical clearance from the University of Fort Hare Ethical Committee and approval from the Department of Health was obtained. It was ensured that no research processes infringed on the human rights or revealed the confidential nature of the individual participation (Wisker, 2008:86).

Wisker also mentions that ethical guidelines insist that researchers should not do physical or psychological harm and that, where human subjects are involved, the participants should give their fully informed consent before taking part. Even though participants gave consent initially they should be able to withdraw at any time and to deny the use of their information in the research (Wisker, 2008:87). That is why the participants were given an information sheet with all the information such as the purpose of the study, procedures, risks involved, benefits of the study to the participants and their rights to withdraw, at any time, from the study. The information sheet, consent forms were available in English, Xhosa and in Afrikaans. As the participants are HIV positive on IPT and knowing that HIV/AIDS is a sensitive topic, the interviews were conducted in privacy. Counseling support was available for the participants as the researcher is a professional nurse trained in counseling.

1.7.10 Dissemination and implementation of results

After the report has been completed it was submitted to the University of Fort Hare Nursing Science Department and then to the University's library. The results will then be sent to the Department of Health's Research Office and to the Management of the Buffalo Metropolitan Municipality.

Research articles from the study will be published in accredited nursing journals nationally and internationally. Research papers and posters will be presented in conferences and symposia.

1.8 Definition of terms

Isoniazid Preventive Therapy (IPT) - Refers to a use of one or more anti-TB drugs given to individuals with latent mycobacterium tuberculosis infection to prevent the progression to an active disease (DoH, 2010:71).

Isoniazid (INH) – an antibacterial drug, CHNO, used in treating and preventing tuberculosis ***Isoniazid (INH)*** – an antibacterial drug, CHNO, used in treating and preventing tuberculosis (DoH, 2010:71) .

HIV- (Human- Immuno-Deficiency- Virus).

HIV Positive clients – In this study it refers to those who have had a positive result in a blood test for the AIDS virus HIV.

Active TB – means a disease that is caused by mycobacterium tuberculosis or other members of the mycobacterium tuberculosis complex family in any part of the body and that is in an active state as determined by either (DoH, 2010:3).

- A smear or culture taken from any source in the person's body test positive for TB and the person has not completed the appropriate prescribed course of medication for active TB disease.
- Radiographic, current clinical or laboratory evidence is sufficient to support a medical diagnosis of TB for which treatment is indicated (DoH, 2010:3).

Adherence to treatment - It is the following of a recommended course of treatment by taking all prescribed medication for the length of time necessary (DoH, 2010:3). In this study it will mean the taking of isoniazid 300 mg daily for a period of six months.

Treatment Default – It is the interruption of IPT for more than 2 consecutive months (DoH, 2010:4).

Experiences – Practical contact with and observation of facts or events.

Extensive Drug Resistant (XDR-TB) - Refers to a situation in which there is a resistance *in vitro* to isoniazid and rifampicin and any one or more of the second line drugs (DOH, 2010:4).

Latent TB infection – those infected with mycobacterium tuberculosis but do not have TB disease.

Multidrug Resistance Tuberculosis (MDR-TB) - Refers to a tuberculosis disease caused by strains of mycobacterium tuberculosis that are resistant to both rifampicin and isoniazid with or without resistance to other drugs (DoH, 2009:83).

Mycobacterium Tuberculosis - Refers to a micro-organism responsible for causing Tuberculosis (DoH, 2010:3).

1.9 CONCLUSION

In this chapter the scientific foundation of the study was introduced with a brief description of the rationale and background, problem statement, purpose, objectives, research questions, significance of the study and the definition of terms.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The purpose of this study was to explore and describe the experiences of HIV positive clients defaulting Isoniazid prophylaxis. This chapter will provide a review of related literature. The purpose of a literature review is to place the study in the context of the general body knowledge. This minimises the possibility of unintentional duplication and increases the probability that the new study makes a valuable contribution (Brink, 2009:68).

Literature review generates a picture of both what is known and unknown about the research problem. It is essential for the researcher to conduct a literature review in order to locate existing, similar or related studies that can serve as a basis for the study at hand (Brink, 2009:52).

For this study a cursory literature review was done to ensure necessity of the study and the appropriateness of the research method selected. An in-depth literature review was done after data analysis to place the findings within the context of what is already known about the topic. The researcher consulted several sources, including medical text books, medical and research journals, policies and guidelines.

Tuberculosis is a major cause of illness and death in people living with HIV, even in those taking antiretroviral therapy. Tuberculosis could be prevented in millions of people infected with HIV through the use of Isoniazid Preventive Therapy. IPT is an important intervention for preventing and reducing active TB. It can prevent millions of people from being infected with TB in the community and in the health care services.

IPT is part of the package of care delivered by HIV and TB service providers for people living with HIV and their families. It is also one of the key interventions recommended by

WHO in 1998 to reduce the burden of TB in people living with HIV, yet its implementation has been very slow. Only 25 000 people living with HIV worldwide were reported to have received it in 2005

Human immunodeficiency virus (HIV) associated Tuberculosis (TB) remains a major global public health challenge. By the end of 2009, an estimated 33.3 million people were living with HIV, the vast majority in Sub-Saharan Africa and Asia. An estimated 2.6 million individual had become newly infected with HIV and 1.8 million had died of AID in that year alone (Padmapriyadarsini et al ,2011:160).

The estimates of the global burden of disease caused by TB in 2009 were 9.4 million incident cases, 1.3 million deaths among HIV negative TB patients and 0.38 million deaths among HIV positive TB patients. Most of TB cases were in the South East Asia, African and Western Pacific regions. Tuberculosis may occur at any stage of the HIV diseases and is frequently the first recognised presentation of underlying HIV infection. As compared to people without HIV, people living with HIV have a 20 fold higher risk of developing TB and the risk continues to increase as CD4 counts progressively decline alone (Padmapriyadarsini et al 2011:160). It is estimated that around 70% of new adult cases of TB in South Africa in the Eastern Cape Province are co- infected with HIV and 46.6% in the Buffalo City Metropolitan District, according to the Buffalo City Metropolitan Quarterly Reviews, 2013.

In 1993, the WHO first issued a policy statement that recognised the efficacy of TB preventive therapy and recommended targeting IPT in PLHIV. That was also the year when TB was declared a global emergency. It was also packaged as one of the 12 collaborative TB/HIV activities recommended by WHO in 2004 and was repackaged as part of the three I's for HIV/TB (Isoniazid preventive treatment, infection control for TB, and intensified case- finding) in 2008. World Health Organization also revised its policy on IPT in 2010 reiterating the importance of IPT as a core function of services provided to PLHIV and as a primary responsibility of National AIDS programs (Getahum, Granich, Sculier, Gunneberg, Blanc, Nunn & Raviglione, 2010:240).

To reduce the morbidity and mortality from TB in people living with HIV, The World Health Organisation recommends the following interventions: early provision of antiretroviral therapy (ART) , at CD4 count less than 350 cells/mm³ and the three I's for HIV and TB: intensified case- finding of TB (ICF), IPT, and infection control for TB (IC). Intensified Case Finding and treatment of TB interrupts transmission of diseases by infectious cases, decreases morbidity and delays mortality. Most importantly, active TB screening offers the opportunity to provide preventive therapy for people who do not have symptoms and signs of TB. The WHO Guidelines for intensified TB case- finding and Isoniazid Preventive Therapy for people living with HIV in resource- constrained settings provide guidance to national HIV and TB programmes and to HIV service providers to scale- up the implementation of TB screening and IPT (Sculier & Getahum , 2011).

Table 1: The WHO (2003) Interim Policy of reducing the joint burden of HIV and TB

Prevent TB in people living with HIV	<ul style="list-style-type: none"> • TB infection control in health care and congregate settings • Intensified TB case finding • Isoniazid preventive treatment • Scale-up of antiretroviral treatment
Treat HIV in patients with TB	<ul style="list-style-type: none"> • HIV testing and counseling • Cotrimoxazole preventive treatment • Antiretroviral treatment
Establish collaboration between HIV and TB programmes	<ul style="list-style-type: none"> • Activities include setting up coordinating bodies at all levels, surveillance of HIV prevalence in TB patients, joint planning and

	resource mobilization, training, supervision, monitoring and evaluation
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2.2 Isoniazid Preventive Therapy

Isoniazid preventive therapy (IPT) is the provision of the drug isoniazid to people at high risk of developing active tuberculosis (TB). Those with HIV are 20 to 37 times more likely to develop active TB from latent TB than those without HIV, making HIV infection the strongest risk factor for TB (DoH, 2010:5).

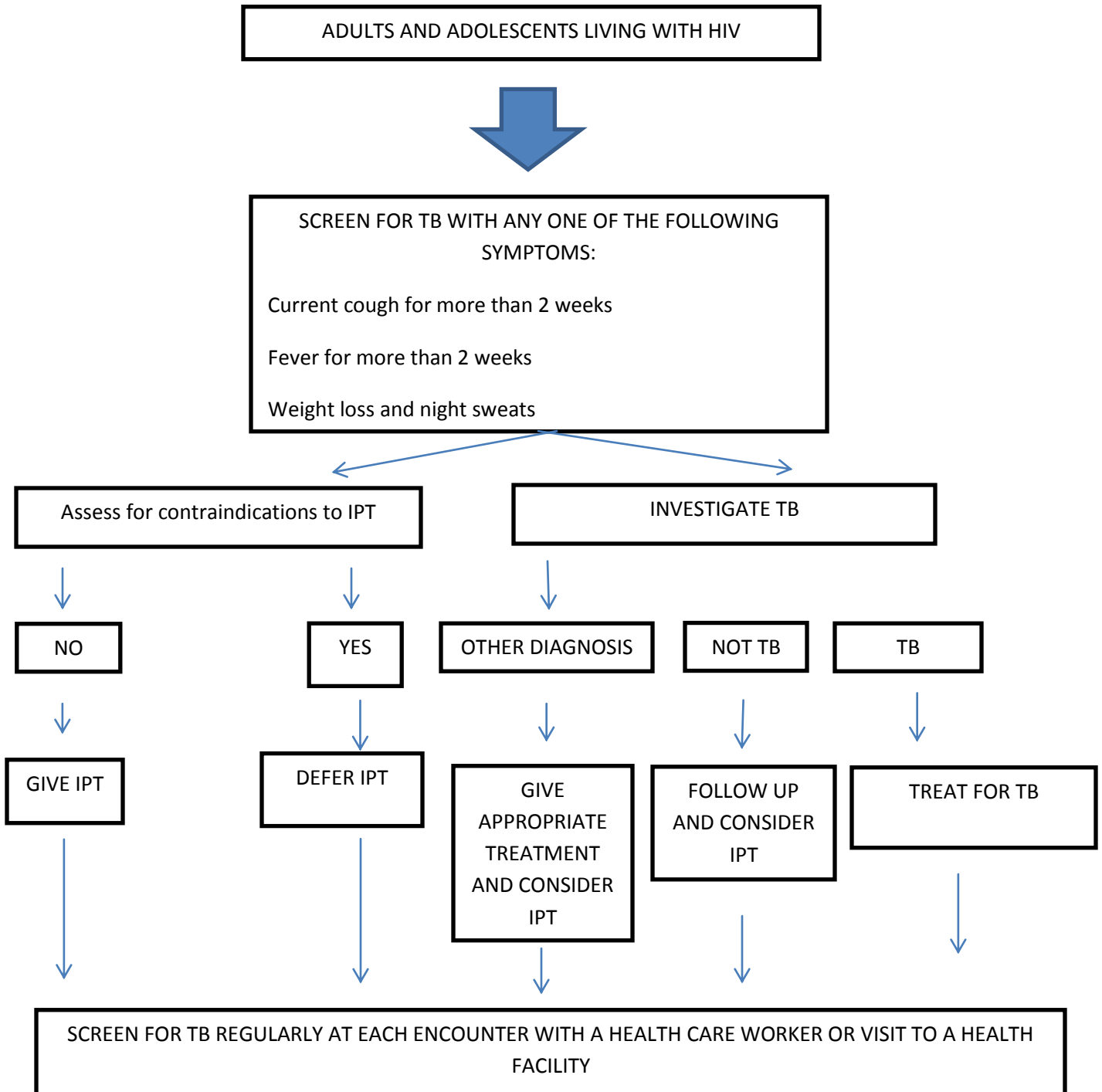
South Africa has had national guidelines for administering IPT since 2002, but coverage remains low, partly due to a lack of awareness among health care providers, according to small qualitative studies by the Aurum Institute, a South African Health Research Organization (2010). The country’s recent large-scale IPT trial among gold miners failed to prove that community-wide IPT worked better than the recommended targeted provision to high risk groups, but did demonstrate IPT’s protective benefits against active TB.

All people living with HIV should be regularly screened for TB using simple clinical algorithms wherever they received care. The clinical algorithm to screen adults (see figure 1), include four symptoms: current cough, fever, weight loss, or night sweats. The absence of all these symptoms can identify people living with HIV with a very low probability of having active TB disease (Sculier & Getahum, 2011).

Chest radiography can be done if available, but is not required to classify patients into TB and non-TB groups. Contradictions include: active hepatitis (acute or chronic), regular and heavy alcohol consumption, and symptoms of peripheral neuropathy (DoH, 2010:4).

The diagnosis of TB refers to the recognition of an active TB case, that is, a client with symptomatic disease due to *Mycobacterium tuberculosis* (DoH, 2009: 27). In the algorithm below, it shows the flow chart of an HIV positive client at first presentation at the health care facility for the screening of TB and the identification of eligible clients for initiation of IPT.

Figure 1. Algorithm for TB screening in adults and adolescents with HIV



Isoniazid Preventive Therapy should be part of the package of care delivered by HIV and TB service provided for people living with HIV and their families. It is also one of the key interventions recommended by WHO in 1998 to reduce the burden of TB in people living with HIV, yet implementation of IPT has been very slow. Only 25 000 people living with HIV worldwide were reported to have received it in 2005 (WHO, 2010:35).

2.3 Health information system related to IPT programme

The monitoring and evaluation of collaborative TB/HIV activities in which the provision of IPT is one critical component is important to provide the means to assess the quality, effectiveness and coverage of services. Not many resource-constrained countries have an established system to monitor and evaluate the implementation of collaborative TB/HIV activities including the provision of IPT. Furthermore, reporting requirements from donor agencies that are not harmonized with internationally and nationally agreed indicators and process place unnecessary burden on programs (Getahum et al 2010)..

2.4 Client monitoring and awareness programme

Client monitoring and education can reduce the risk of serious INH related toxicity. Clients should be warned about symptoms of INH toxicity (abdominal pain, nausea and jaundice) and told to stop taking INH and return for evaluation if these occurs. They should also be warned on alcohol consumption while on IPT. Monitoring of for symptoms is very effective, but may not be practical in all settings. People living with HIV and receiving IPT should have regular clinical follow ups for clinical assessment (Getahum et al, 2010).

2.5 Benefits of Isoniazid Preventive Therapy

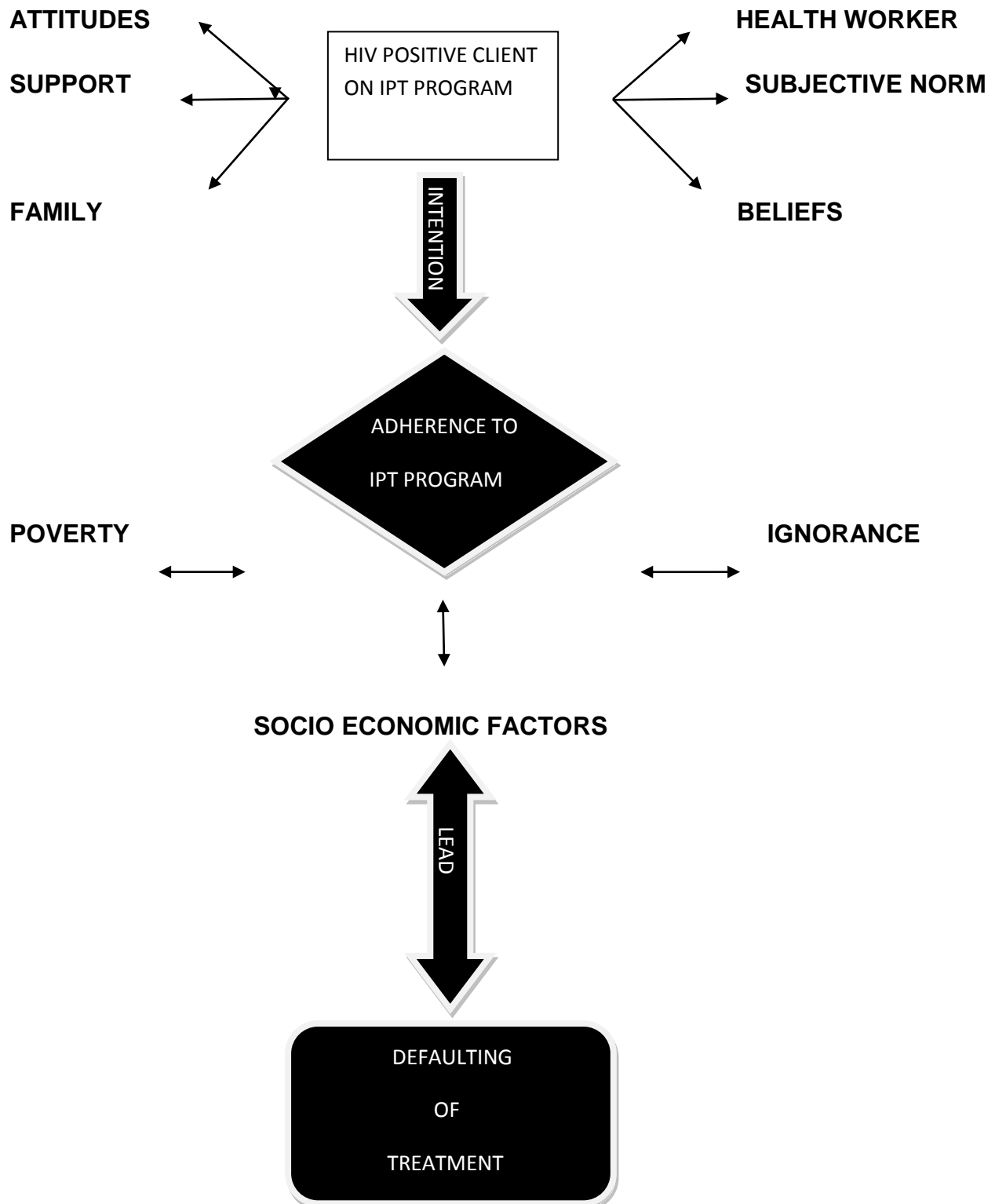
Isoniazid preventive therapy in the context of HIV is an intervention that can saves lives. Isoniazid Preventive Therapy for tuberculosis consists of taking one pill daily for 6-9 months to prevent the development of active TB. Isoniazid preventive therapy has been

proven to be safe and effective at reducing the risk of active TB in people living with HIV.

Multiple studies around the globe confirm the beneficial potential of IPT for HIV positive people. These studies indicated that IPT typically reduces the risk of TB disease by between 33% and 62% in people living with HIV. Research again suggests that the benefits of IPT for HIV infected people last for up to 48 months. IPT is also associated with a reduction in mortality (Braun, 2008).

2.6 THEORETICAL FRAMEWORK

Figure 2. Self-developed Conceptual framework based on Ajzen's (1988) theory of planned behavior



This study was guided by the theory of Planned Behavior (TPB) of Ajzen developed in 1988. The theory proposes a model which can measure how human actions are guided. It predicts the occurrence of a particular behavior, provided that behavior is intentional (Fishbein & Ajzen, 1975). This theory states that, intention to perform a behavior is the central component in determining the behavior. Intent is influenced by attitudes, subjective norms and perceived control (Kerr, Weitkunat & Morreti, 2005).

Adhering to the prophylactic treatment of isoniazid for HIV positive clients is the behavior. The decision the client has to take to comply with prophylactic treatment is the intention. In terms of the TPB model, intention is influenced by the client's attitude to complete the treatment as well as the extent to which his supporters, family and health care workers wishes him to finish the course of treatment. In order to ascertain attitudes towards behavior there is also need to measure people's subjective norms or their beliefs about how people they care about will view the behavior in question (Fishbein & Ajzen, 1975). The intention to take treatment is influenced by perceived control. This depends on factors such as poor patient understanding of treatment; availability of drugs; socio economic factors; poverty; inadequate support from family and employer; and morbidity.

2.7 HIV and TB

The Human Immunodeficiency Virus (HIV) epidemic has triggered an increase in the number of TB cases globally (WHO, 2012a). HIV infection and tuberculosis are common and often co-occurring conditions, forming a lethal combination, each speeding the other's progress, with a resultant increase in mortality (WHO, 2012a).

TB is a significant re-emerging infectious disease in many parts of the world. The World Health Organization (WHO) global TB control report found that, in Africa, TB incidence rates have tripled since 1990, especially in those countries with high HIV prevalence. The TB incidence rates are still rising at a rate of 3–4% annually (WHO, 2005), despite an overall stabilization of incidence rates in many other regions. The major reason for this increase in rates is the co-existing HIV and TB epidemic that is affecting much of sub-Saharan Africa.

Human Immunodeficiency Virus associated tuberculosis remains a major global public health challenge. Globally, an estimated 33 million persons are infected with Human Immunodeficiency Virus and 2.2 billion persons are infected with Mycobacterium Tuberculosis (WHO, 2009; Getahun, 2009). By the end of 2009, an estimated 33.3 million people were living with HIV with the vast majority in Sub-Saharan Africa and Asia. An estimated 2.6 million individuals had become newly infected with HIV and 1.8 million had died of AIDS in that year alone (Padmapriyadarsini, Narendran and Swaminathan, 2011). Almost 300,000 people were co-infected with HIV and TB in 2010. South Africa is estimated to account for about 24 percent of the world's HIV-TB burden, according to the WHO (2012).

TB may occur at any stage of the HIV infections and is frequently the first recognised presentation of an underlying HIV infection. As compared to people without HIV, people living with HIV have a twenty-fold higher risk of developing TB and the risk continues to increase as CD4 counts progressively decline (Padmapriyadarsini, Narendran and Swaminathan, 2011).

The World Health Organization had proposed a framework of TB/HIV/AIDS collaborative activities to prevent the occurrence of TB-HIV disease. IPT, intensified TB case finding, and infection prevention are the major strategies to control TB in HIV-positive individuals (WHO, 2005). The World Health Organization recommends 12 collaborative HIV/TB activities, including the "Three I's for HIV/TB" (isoniazid preventive treatment, intensified case finding, and infection control for TB). This should be seen as core prevention, care, and treatment services for HIV infection. Of the 12 activities, there has been progress in implementing testing for HIV infection, providing trimethoprim-sulfamethoxazole preventive therapy, and antiretroviral therapy (ART) (WHO, 2009).

The DOTS strategy on its own is inadequate for the optimal management of co-infected patients. The TB-specific Millennium Development Goals of reducing the prevalence and death rates of TB by 50% by 2015 will not be achieved in the high HIV-burden areas unless additional strategies and interventions are put in place. Under the

leadership of the World Health Organization (WHO) and the Stop TB Partnership, TB-HIV guidelines (WHO, 2002), a TB-HIV strategic framework (WHO, 2003) and an interim TB-HIV policy (Table 1) (WHO, 2004) have all been developed to reduce the burden of TB-HIV disease in severely affected countries. One of the main prongs of the TB-HIV interim policy is to reduce the impact of HIV in co-infected patients. This review will focus on three important interventions: provider-initiated HIV testing and counseling, cotrimoxazole preventive treatment (CPT) and antiretroviral treatment (ART).

2.8. Implementation of Isoniazid Preventive Therapy

The current recommended dose of IPT for adults is 300 mg of isoniazid per day with Pyridoxine 25 mg per day for six months, with 36 months conditionally recommended in areas of high TB prevalence and transmission as well as those with positive TST test (montoux test) (ART guidelines, 2013).

Many TB program officials and health care providers fear that IPT programmes will inadvertently lead to the development and worldwide spread of multidrug-resistant TB (MDR-TB) and extensively drug-resistant TB (XDR-TB). Close monitoring of IPT program participants can alleviate this fear, as strong evidence exists that IPT does not increase the risk of developing isoniazid-resistant TB in the absence of active TB. To prevent individuals with active TB from receiving IPT, ruling out active disease at the beginning is most important. If an individual develops new symptoms of TB during IPT treatment, IPT should be stopped and a diagnosis of TB should be confirmed or ruled out.

Tuberculosis screening should be performed at the time of initial presentation to HIV care and thereafter at every visit to a health facility or contact with a healthcare worker. Screening for TB is important regardless of whether patients have received IPT or ART. Isoniazid Preventive Therapy is primarily an HIV intervention and is part of high-quality services for people living with HIV (Sculier & Getahum, 2011).

In most settings provision of IPT to people living with HIV should be under the responsibility of national HIV programmes and HIV services providers. IPT should also

be part of a TB prevention package along with infection control for TB, intensified case-finding and provision of early ART to people living with HIV with CD4 count <350 cells/mm³ (Sculier & Getahum, 2011).

Successful examples of IPT implementation highlight its feasibility in diverse settings. The WHO Guidelines for Intensified Tuberculosis Case-Finding and Isoniazid Preventive Therapy for People Living with HIV in Resource-Constrained Settings provide in-depth information on the evidence base for IPT. The target audience for these guidelines includes health care workers, policy makers, health program managers, governments, nongovernmental organizations, funders and patient support groups. The International Training and Education Center for Health (I-TECH) website also provides general information on the first steps for implementation of an IPT program (DoH, 2010:14).

2.9. Additive Adverse Effects of IPT programme

Adverse reaction to drugs are common among patients with HIV related TB, especially if taking HAART concomitantly. Rash, fever, hepatitis and peripheral neuropathy are common side effects of anti-TB drugs especially INH. Isoniazid drug may cause overlapping toxicity (Table 2). Majority of side effects occurs within the first two months of starting treatment. Additive drug toxicity compromises patient safety and is an important cause of discontinuation and interruptions of IPT (British HIV Association, 2014). The table below indicated the adverse reactions common among HIV positive client on ART and on IPT.

Table 2. Additive adverse effects

Adverse reaction	Main ARV drug involved	Main anti-tuberculosis drug involved
Peripheral neuropathy (early or late side effect)	Stavudine	Isoniazid Cycloserine
Hepatitis (usually an early	Nevirapine	Rifampicin, Isoniazid,

side effect. This is a major problem when combining rifampicin and second-line ritonavir-boosted protease inhibitor regimens)		Pyrazinamide
Gastrointestinal dysfunction, e.g., diarrhea, abdominal pain (early or late side effect)	ALL	ALL
Skin rash (usually early side effect)	Nevirapine	Rifampicin, Isoniazid , Pyrazinamide, Cycloserine
Central nervous system dysfunction (early or late side effect)	Efavirenz	Isoniazid Cycloserine

2.10. Factors contributing to treatment default

HIV infected patients have been reported to have twice the risk of defaulting when put on treatment compared to HIV negative patient as they deal with many medications. Similarly, poorer TB treatment success rate for HIV positive patients among re-treatment patients has previously been reported in Nairobi (Chakaya, 2002:545).

Many patients in the study were infected with HIV. The infected patients often attend separate clinics or facilities for other conditions and HIV care services, thus increasing transport and other opportunity costs. This may lead to patients defaulting in their treatment. Similarly, an Indian study (Jaggarajamma, Sudha, Chandrasekaran, Nirupa, Thomas & Santha, 2007) documented that a higher rate of migration from a treatment center was observed among patients who defaulted. They discovered that the relocation was based mainly on occupational grounds.

Another factor implicated with defaulting among patients is the problem of side effects. The side-effects profile of anti-TB drugs is magnified in patients with concurrent HIV treatment (Fry, Khoshnood, Vdovichenko, Granskaya, Sazhin, Shpakovskaya, 2005). It is possible that minor adverse effects, which did not pose a danger in the clinician's view, nevertheless resulted in discomfort and contributed to a patients' decision not to continue treatment (Philip, LoBue, Kathleen, Moser, 2003). Combining antiretroviral and anti-TB drug such as INH means taking many pills daily. This can be difficult and challenging to most patients. That patients with HIV comorbidity are significantly more likely to default is sufficient evidence that HIV and TB care should be integrated.

In addition, (Soriano, 2002) in a qualitative study in Mutia, Zamboanga del Norte likewise stressed that most of those who defaulted did so because of an inability to deal with the drug's adverse effects. She further stressed that defaulters perceived that the health benefits of undergoing treatment were not worth suffering the negative side effects of the medicine. That long term goals of cure and recovery were disregarded by defaulters for the immediate goal of seeking relief from the discomfort brought about by the side effects of medication.

Ignorance by patients has been cited as a factor contributing to defaulting. There are different reasons for non-adherence to medications such as forgetfulness, being busy and away from home was reported. This is in keeping with the findings of other studies (Mc Callum, 2007; Meichenbaum & Turk, 2006). Patients' who complied with their clinic appointments were more likely to complete their regimen. This is consistent to a similar study elsewhere (Rennie, Bothamley, Engova, Bates, 2007).

Dunbar (2004) examined the contribution of health service factors to non-adherence to treatment. According to a study conducted in Kenya and Zambia, the poor quality of physicians' interpersonal skills has been shown to negatively affect adherence (Dunbar, 2004; Bartlett, 2006). Four cross-sectional studies showed the impact of poor patient-physician relation on adherence in different setting (Sbarbaro, 2006; Clark, 2000, 2004; Stewart, 2006). Randomized trials also showed that an increase in non-adherence in situations where doctors appear insensitive, use medical jargon, view patients as

complainers, or do not provide clear messages about the cause of the illness or reasons for treatment (Mead & Bower, 2002; Korsch & Negrete, 2003).

Also, according to (Guillaume-Signoret, 2006) and (Uwah, 2006b) inadequate counseling and information provision by health personnel resulted in TB treatment default. In addition (Selig *et al.*, 2003:587) recognized that the negative attitude of healthcare professionals toward TB patients correlated with non-adherence with treatment.

Stigma or feeling uncomfortable to take the drug in front of others was one of the factors for non-adherence to IPT. A stigma attached to TB in China leads to imposition of socio-physical distance and participatory restrictions on those suffering from the disease (Xu, 2009). In Ghana, (Dodor, 2004:1335) found that patients appeared to be ashamed of their condition. This finding confirmed the findings of Johansson (1996) that patients did not disclose their TB status from family members and friends to avoid social isolation and to protect their dignity. In addition, (Rennie, Bothamley, Engova, Bates, 2007:731) and (Munseri *et al.*, 2008:1040) found low adherence to preventive INH treatment because of the fear of stigma.

Lack of effective social support networks and unstable living circumstances are additional factors that create an unfavorable environment for adherence to treatment (WHO, 2003). Social and family support positively influenced adherence among patients (Rowe *et al.*, 2005:266).

2.11 Conclusion

This chapter has reviewed literature under the following subheadings: theoretical framework, HIV and TB, ITP, ITP implementation and factors contributing to non-compliance. The following chapter covers the research methodology that was followed in this study.

CHAPTER 3

METHODOLOGY

3.1 Introduction

This chapter outlines the research methodology applied during this study. It included discussion of the research design, research setting, the study population, the target population, the sampling procedure, the pilot study, data collection methods, data analysis, the trustworthiness of the study and the dissemination and implementation of results.

3.2 Research Design

In this study the researcher focused on the qualitative approach which is descriptive, explorative and contextual in nature using the phenomenological design.

According to (Corbin and Strauss, 2008, 12) qualitative research allows researchers to probe into the inner experiences of participants to determine how meaning is formed through culture, and to discover rather than to test variables. In this study the qualitative approach offered the participants an opportunity to express their views on Isoniazid Preventive Therapy program. The participants were allowed to express themselves in a manner that revealed their real situation. The participants were encouraged to describe their world in their own terms.

This study intended to examine human experiences. The choice of the phenomenological design as (Brink, 2006: 113) states examines human experiences through the descriptions that are provided by the people involved. The experiences are called “lived experiences”. The purpose of the phenomenological research, then, is to describe what people experience in regard to certain phenomena, as well as how they interpret the experiences or what meaning the experiences hold for them. Therefore phenomenology is an approach that concentrates on a subject’s experience rather than on the person as a subject or object. In this study the inner experiences of the

participants revealed exactly what happened to them while they were on treatment and explained, describing in depth the reason for stopping the treatment, as the researcher explored and discovered the similarities between the participant's experiences.

3.3 Research Setting

The study was conducted at the Bhisho Primary Health Care Services in the King Williams Town area. This is a small town in the Eastern Cape Province in South Africa. It is situated along the banks of the Buffalo River and forms part of the Buffalo City Municipality Metropolitan Municipality.

King, as the town is locally called, stands 389 meters above the sea at the foot of the Amatole Mountains and in the midst of a thickly populated agricultural district. It has a population of nearly 100 000 inhabitants, surrounded by townships and villages. King has 2 tertiary health care institutions, 2 community health care centers and 27 primary health care facilities under it, of which 4 of the primary health care facilities were used in the study.

3.4 Study Population

The study population for the study was all HIV positive clients defaulting IPT at the Bhisho Primary Health Care Services in King William's Town.

3.5 Target Population

Target population for this study was all HIV positive clients defaulting IPT at Tyutyu, Ginsberg, Bhisho Gateway and Sweetwater clinics.

3.6 Sampling

The researcher focused on a non-probability sampling using a purposive method. The researcher used the client records available at the clinic and visited the clients that defaulted in the IPT program as the sample. The intention of the researcher was to interview at least 15 clients although data saturation was reached at 14 clients.

3.6.1 Inclusion Criteria

Inclusion sampling criteria are those characteristics that a subject or element must pose to be part of the target population (Burns and Grove, 2009: 343). Inclusion criteria for this study embraced HIV positive clients, males and females between the ages of 18 and 40 years with a negative smear TB sputum defaulting IPT. They were mentally stable and willing to participate.

Brink (2009:124) states that it is critical that the researcher carefully defines and describes the population, and also stipulates criteria for inclusion. These criteria are referred to as eligibility criteria, inclusion criteria or distinguishing descriptors. Researchers use them as the basis for their decision of whether an individual or object would or would not be classified as members of the population in question.

3.6.2 Exclusion Criteria

Exclusion sampling criteria are those characteristics that can cause a person or element to be excluded from the target population (Burns and Grove, 2009:343). In the study the researcher excluded the HIV positive clients with positive smear TB sputums, children, those with psychiatric diseases and HIV positive with dementia.

3.7 Pilot Study

A pilot study was conducted at the Breidbach clinic to clients that were not included in the main study. This was done by taking HIV positive clients who were on IPT. The number of participants involved in the study was 6. They were interviewed using the interview guide. Probing questions were guided by the client's responses. Pilot study was conducted to assist the researcher to master interviewing skills and to check the relevance and the effectiveness of the interview guide.

3.8 Data Collection

In order to collect data, the researcher should be able to access the data that needs to be collected for the study. Data can be gathered from a number of sources including written documents, records, workplace, the internet, surveys or interviews.

The method of data collection for this study was in-depth unstructured face to face interviews. In-depth interviews allow the participants to describe their lived experiences and the meaning of events taking place in their lives. An interview guide was used to conduct the interview. The participants were asked questions, for an example:

- What are your lived experiences regarding IPT?
- What do you think can be done to change the situation?

Other probing questions depended upon the answers of the participants.

An audio tape-recorder was used to obtain the information from the participants and a notebook pad was used for field notes. Data was transcribed verbatim from the audio tape. A good working relationship with the participants was developed. Trust and rapport was attained by using sound communication skills, empathy and genuine acceptance.

3.9 Data Analysis

Brink (2009: 70) maintains that data analysis entails categorizing, ordering, manipulating, summarizing the data and describing them in meaningful terms.

After each interview with a participant data was analyzed by listening to the tapes again and again to gain full understanding of what the participant was saying. This was done by noting down important points such as pauses of the client, highs and low, when she/he sighed. This attributed meaning and assisted the researcher to interpret what the phenomena meant. During this process themes were generated.

Whilst transcribing the recorded interviews the researcher made reflective notes and marginal remarks to highlight the important aspects of the interview. The next step was the coding. This is classification of words or phrases or descriptive words or categories to form a story.

3.10 Trustworthiness

To address the matter of accuracy and appropriateness of data, the researcher used **conformability** by going back to the participants with the data and findings as a means of checking the trustworthiness of the data. This afforded an opportunity to ascertain factual accuracy and also confirmed or disconfirmed the researchers' understanding by the participants.

To ensure **credibility**, each person who was approached was given an opportunity to refuse to participate in the study. This ensured that the data collection sessions involved only those who were genuinely willing to take part and were prepared to offer data freely. Participants were encouraged to be frank from the outset of each session, with the researcher aiming to establish a rapport in the opening moments (Shenton, 2004:66).

This study safeguarded **dependability** by ensuring that the process within the study was reported in detail, thereby enabling a future researcher to repeat the work and to obtain similar results. The research design may be viewed as a "prototype model" so as to enable readers of the research report to develop a thorough understanding of the methods and their effectiveness (Shenton, 2004:66).

To ensure **transferability** the researcher used purposive sampling with a dense description of the research methodology, setting the context of research and literature control. This would enable future researchers to get the similar findings of a study in similar situations. The researcher provided the information that potential appliers needed to make a decision on transferability (Spaziale & Carpenter, 2011).

Transferability refers to the ability to apply the findings in other context or to other participants (Brink, 2012:173). It is also called "fittingness" which refers to the probability that the findings have the same meaning to others in similar situations (Speziale & Carpenter, 2011:97).

3.11 Ethical Considerations

The researcher in this study ensured that ethics were considered, that the rights of the subjects are not infringed. Informed consent forms were obtained before the research began. Formal ethical clearance from the University of Fort Hare Ethical Committee and approval from the Department of Health was obtained. It was ensured that no research processes infringed on the human rights or revealed the confidential nature of the individual participation (Wisker, 2008:86).

Wisker also mentions that ethical guidelines insist that researchers should not do physical or psychological harm and that, where human subjects are involved, the participants should give their fully informed consent before taking part. Even though participants gave consent initially they should be able to withdraw at any time and to deny the use of their information in the research (Wisker, 2008:87). That is why the participants were given an information sheet with all the information such as the purpose of the study, procedures, risks involved, benefits of the study to the participants and their rights to withdraw, at any time, from the study. The information sheet, consent forms were available in English, Xhosa and in Afrikaans. As the participants are HIV positive on IPT and knowing that HIV/AIDS is a sensitive topic, the interviews were conducted in privacy. Counseling support was available for the participant as the researcher is a professional nurse trained in counseling.

3.12 Dissemination and Implementation of Results

After the report has been completed it was submitted to the University of Fort Hare Nursing Science Department and then to the University's library. The results will then be sent to the Department of Health's Research Office and to the Management of the Buffalo Metropolitan Municipality.

Research articles from the study will be published in accredited nursing journals nationally and internationally. Research papers and posters will be presented in conferences and symposia.

3.13 Conclusion

The (DoH, 2010: 12) puts it clearly that information about TB Preventive therapy should be made available to all people living with HIV/AIDS. Experiences from trials and operational research have stressed the importance of relevant information for the patients including the issue of adherence. Tuberculosis preventive therapy must be discussed and adequately planned to ensure full understanding and adherence by the patient. During post-test counseling following a diagnosis of HIV, the patient should be informed about the benefits of the TB preventive therapy, and should be invited to return to the clinic for the service.

If all this is done patients will be able to trust and have confidence in the health system, therefore making a difference in the global target to halt TB. The methodology of the study thus helped the researcher to unfold the views of others in an organized manner and in this case described the experiences of the HIV positive clients on IPT.

CHAPTER 4

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter describes the results from respondents on their experiences as HIV positive clients defaulting IPT services. The concern of the researcher was that these clients are likely to develop TB and when they have developed TB they will develop resistance to TB drugs containing isoniazid. This also leads to multi drug resistance (MDR) or extensively drug resistance (XDR) TB. This chapter will look at the reasons for defaulting and recommend possible strategies that can be used to prevent isoniazid default.

4.2 Demographic Information

This section focuses on the demographic information of the participants. This study had a total of fourteen participants, males and females. Each participant signed a consent form before the interview and the purpose of the study was explained.

4.2.1 Age distribution of participants

Table 3. Age distribution

Less than 20	20- 29 years	30- 39 years	40- 49 years	TOTAL
1	4	8	1	14

4.2.2 Gender distribution of participants

Table 4: Gender distribution

Male Participants	Female Participants	TOTAL
4	10	14

4.2.3 Clinics used by participants

Table 5: Clinic use

CLINIC	Tyutyu	Bhisho Gateway	Ginsberg	Sweetwaters	TOTAL
Number of participants attended	7	3	3	1	14

4.2.4 First diagnosis of participants with HIV

Table 5: When were participants diagnosed with HIV

Year of diagnosis	2000- 2005	2006- 2010	2011- 2014
No. of participants diagnosed	1	1	12

4.2.5 Duration on IPT

Ten (10) participants had been on IPT for a month or two. The remaining four participants had been on IPT for three months.

4.3 Qualitative Data Analysis of Participant's Responses

This section covers the results from the responses of participants in responding to the objectives of the study in exploring and describing the experiences of the HIV positive clients defaulting IPT so as to determine possible strategies that can be used to prevent isoniazid (INH) default. There are four main themes that emerged from the data analysis: (1). Reasons for not taking treatment, (2). Quality of services, (3). Knowledge of treatment, (4). Participant's suggestions in improving of health services.

The themes were further classified into sub- themes as indicated in the table below:

Table 7: Themes and sub- themes regarding the experiences of HIV positive on IPT programme.

Number	Themes	Categories	Sub- themes
1.	Reasons for not taking treatment	Work related issues	Overlooked their return dates Nurses did not tell them that they can get medication in cities they visited They stopped medication/ defaulted Afraid of going back to the clinic Fearing the attitudes of nurses Afraid of being scolded
		Family related issues	Had infants to take care for
		Side effects	Experienced pain in the legs and hands. Experienced cold

			feet and was told by nurses to stop medication.
		Ignorance of patients	<p>Stopped medication.</p> <p>Stopped medication without consulting health providers.</p>
		Negligence of nurses	<p>Nurses did not speak to the patient who was defaulting.</p> <p>Nurses just looked at the paper and patient left without proper medication.</p> <p>An HIV positive patient who was diagnosed for the first time, treatment to prevent TB was given without any explanation.</p> <p>Nurses gave medication the first month but did not give medication in</p>

			the 2 nd month
		Denial of HIV status	Found it difficult to come to the clinic. Was not ready to disclose. Have not come to terms with her condition.
		Stigmatization	Afraid to be seen at the clinic. Going to the clinic will expose her status.
		Lack of privacy	No consulting rooms. People are able to see which medication is given to other clients
2.	Quality of services provided	Lack of support from the health services.	Poor service rendered. No support given. Fear of nurses. No detailed information is given

			<p>to the client regarding going on holiday.</p> <p>Nurses are disrespectful.</p> <p>Fear to go to clinic when defaulted.</p> <p>No home visits done.</p> <p>No follow ups done.</p>
		Poor understanding of policies and guidelines by nurses.	<p>Patients complained of side effects of medication.</p> <p>Nurses unable to explain the duration of medication.</p>
3.	Client knowledge about treatment.	Lack of knowledge about treatment	Lack of information from professionals regarding medication and side effects.
4.	Suggestions by participants	Change of nurses attitude.	Nurses and care givers to change

		<p>Improved means of communication.</p> <p>Maintenance of privacy.</p> <p>Clear consultation times.</p> <p>Clear guidelines for clients.</p>	<p>their attitudes.</p> <p>The use of text messages.</p> <p>Privacy.</p> <p>Proper consulting times.</p> <p>Plan from government.</p> <p>Patients to be given information.</p>
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4.3.1 Reasons for not taking medication

The results from the data revealed that the reasons for not taking medication were work and family related issues, side effects, patient ignorance, negligence of nurses, and denial of HIV status, lack of privacy and fear of stigmatization.

4.3.1.1 Work related issues

Four participants identified work related issues as their reasons for not taking medication. Two participants overlooked their return dates because they went away for work purposes and the nurses did not tell them that they can get medication in cities they visited. They stopped taking medication and when they got back they were afraid of going back to the clinic. They claimed fearing the attitudes of nurses as they will most probably scold them. Below are some responses relating to this:

“Yes, I was in Cape Town I did not know that I could go to the clinic and get my treatment. I thought I should come to this one where I reside. I was never told by the nurses that I can obtain them from any other clinic.”

“They said I should go back to them then they gave me the return date of the 13th. I was doing some business, no catering in Graham’s town.”

4.3.1.2 Family related issues.

Two other participants could not go to the clinic as they had infants to care for and they missed the date of return. Also, just like the other participants they were afraid of being shouted at by nurses.

“Hallo sister my problem is I have a child I could not come because my child was not feeling well. I was afraid to come to the clinic the following morning because I missed the date. I was afraid of nurses. They have bad attitude and they shout. They shouted at me before when I missed my date.”

4.3.1.3 Side effects

Three participants stopped taking their medication as they were experiencing side effects to the medication. They experienced pain in their legs and hands. One was experiencing cold feet and was told by the nurses to stop her medication. The other two stopped after they fell ill even though they were told by nurses it will pass with time. The following extracts were expressed by participants who experienced side effects:

“I was given a brown tin with a white lid. I used it for the first time and the third time until I finished it. I tolerated it but I came to the clinic and reported that it made my feet to be cold. I had to soak my feet in hot water every night before going to bed. I did that until the pills were finished. When they were finished I reported here at the clinic and I was told to stop them.”

“The reason is I stopped taking the pills because I noticed that my hands and feet became painful. I went to the clinic and reported nothing was done about that. So I decided to stop taking them.”

“I used treatment for two months but I experienced painful legs I continued with my treatment then I came to the clinic and reported this. I was told that it will go away on its own. I had that hope. Then I never came for the third one because I did not see the point of taking this treatment because my legs were no longer painful. “

4.3.1.4 Ignorance of clients

One of the participants stopped taking the medication due to her ignorance of the importance of the medication. She was taking both medication for IPT and the PMTC prophylaxis for protecting the baby against HIV infection. After the prophylaxis medication was completed she decided to stop both of them without consulting health provider. Therefore, it was negligence on the part of the patient.

“The reason is that I only came for the one pill and when it was stopped I decided to stop both pills.”

4.3.1.5 Negligence of nurses

On the other hand there was also negligence by nurses which caused patients to default their medication. One participant was given medication the first months and when she came again the nurses did not give her any medication. The nurses in the clinic did not speak to her. They just looked at a paper and she left without proper medication. This was the reason for her stopping medication. Another participant tested HIV positive for the first time. He was given medication for a month for preventing TB without explanations for taking the medication and the duration of the treatment. He was told to come back after 6 months for a CD4 count. When he returned they did not mention any TB medication. The same applies for other participants. Below are some responses relating to this:

“I can say it was not my fault. I came for my first visit and I was given INH and I was told that I am going to take it for six months. OH but the following month when I came I was not given the treatment and I do not know why. I was attended by a coloured lady the first time and then on another visit by a dark lady and I never asked. I took INH for two months and I was never given for the third time.”

“The time I came here I came to test for HIV. I was never told about those pills because I was shocked. I was given pills and told that they prevent TB. I was never to come again and I was also shocked. I took those and never came back. I was told to come back after six months for CD4 count. I came back and did CD4 count then I left. I came back for results. Still nobody talked about the INH or asked about whether I am taking INH or not.”

4.3.1.6 Denial of HIV status

The other reason that prompted a participant to stop treatment was because he was still in denial about his HIV status. The participant found it difficult to come to the clinic as he was not ready to disclose his status as he have not come to terms with his HIV status with regards to understanding and acceptance.

“No sister it is difficult to come because there ladies and this clinic are in front of the houses. So it is not easy for me to come to the clinic. It is one of the reasons. I have not really accepted my status. I am trying to come to terms with it and it stresses me out. These people make it difficult for me. It is only me and my girlfriend who know about this. I have not told my family about this. That is why I am afraid to come to the clinic. Coming to the clinic is going to expose me. They will gossip and there is someone I am eyeing. I am not ready.”

4.3.1.7 Stigmatization

Participants are afraid to be seen frequently at the clinic as this will be associated with taking of ARV'S. One participant mentions that going to the clinic will expose his HIV status and this becomes a problem. Below are some responses relating to this:

“No sister it is difficult to come because there ladies and this clinic are in front of the houses. So it is not easy for me to come to the clinic..... Coming to the clinic is going to expose me.”

“The reason why I don’t come for treatment is because when you go and collect your treatments there are people around.”

4.3.1.8 Lack of privacy

The fact that the nurses do not used consulting rooms when giving medication to the clients made the participants feel that there is no privacy and other people attending the clinic are able to see which medication are they given

“The reason why I don’t come for treatment is because when you go and collect your treatments there are people around. The nurses cannot give you in a private place. They give you in front of everyone.”

4.3.2 Quality of services provided

This section focuses on the quality of the services provided by the health providers. According to all participants they had received poor services in terms of not receiving support, information on reporting when going away or sending someone to obtain their medication if they are unable to do so. Participants also had problems with disrespectful nurses as they scolded the patients. When a patient missed a return date they feared returning to the clinic as they are shouted at. This set of circumstances prompted them to stop taking the medication.

4.3.2.1 Lack of support from the health service

Participants had never had a visit from the community service workers to enquire why they stopped taking medication. They have never visited them or made follow-ups.

“No one visited.”

“Thought caregivers would come and visit and enquire about why I haven’t been to the clinic. They are supposed to come and check how treatment is going.”

The participants claimed to have feared the attitudes of the nurses as they will most probably be scold and shouted at. This again indicated the role played by the nurses in increasing the default rate of IPT. Below are the responses of the participants with regard to this:

“I was afraid of nurses. They have bad attitude and they shout. They shouted at me before when I missed my date.”

“I thought of being shouted at because nurses are known for that.”

“They shout, ask you many questions and then you feel ashamed because you did not come to fetch the treatment.”

4.3.2.2 Poor understanding of policies and guidelines by nurses

Participants were given medication without an explanation of the duration and what it is used for. Participants who had experienced pain in their hands and feet were not given the white pills (pyridoxine) which alleviate the pain. Another participant was taking one white and one yellow pill. When she got ill with cold feet the nurses just told her it will pass without explaining that she can take up to 4 white pills for the pain. This clearly indicates that the policy and guidelines on IPT are not understood. Below are some responses relating to this:

“No, they gave me and told me to come after six months, I do not know how long the treatment will take or what the treatment was for, I had only being diagnosed with HIV.”

“I thought of being shouted at because nurses are known for that. “When you come to the clinic there is a paper with all your information. The nurses just ask if you are here for treatment and just give you treatment and not say anything.”

“The reason is I stopped taking the pills because I noticed that my hands and feet became painful. I was only given the yellow ones.”

“The reason is I stopped taking the pills because I noticed that my hands and feet became painful. I went to the clinic and reported nothing was done about that. So I decided to stop taking them.”

Some participants had no idea how long the treatment will last and what was the treatment for or where to get the treatment if a client is not around the area. This shows that poor information sharing of nurses can cause increase in the default rate of IPT.

“No, they gave me and told me to come after six months, I do not know how long the treatment will take or what the treatment was for, I had only being diagnosed with HIV.”

“I got the white and yellow pills and I was not told the duration.”

“The time I started this treatment I am not sure whether it is ARV’s but I read that pamphlet inside the pills it said one might experience itchiness or rash. Does this treatment do that or it was caused by ARV’s”

“Yes, I was in Cape Town I did not know that I could go to the clinic and get my treatment. I thought I should come to this one where I reside. I was never told by the nurses that I can obtain them from any other clinic.”

4.3.3 Client’s knowledge about the treatment

Some of the participants did not know have information about the treatment. For example two of the participants did not know about the use of the yellow pills; another participant did not know the importance of taking the medication and the consequences.

Some participants even asked information on the perceived side effects which people talk about and if it is important to take the medication when you do not have the TB at that time. In addition, participants did not know that one can get medication wherever they are even if there are not in their resident area.

4.3.3.1 Lack of knowledge of treatment

As mentioned above that participants did not have information about the treatment they were given at the clinic and this contributed to the fact that they stopped taking treatment.

“No sister no one talked about that. I was only told about the CD4 count.”

“The time I started this treatment I am not sure whether it is ARV’s but I read that pamphlet inside the pills it said one might experience itchiness or rash. Does this treatment do that or it was caused by ARV’s?”

“I got white and yellow pills and was not told the duration.”

“Yes, I was in Cape Town I did not know that I could go to the clinic and get my treatment. I thought I should come to this one where I reside. I was never told by the nurses that I can obtain them from any other clinic.”

4.3.4 Suggestions by participants to increase knowledge and avoid defaulting by patients

This section covers the suggestions made by participants when asked what can be done to improve knowledge about the treatment and for patients not to default their medication. Every participant made a suggestion and some were similar to each other

but the main one was to change the attitude of nurses as they disrespect patients. Other suggestions are as follow:

4.3.4.1 Nurses attitude

- Nurses and caregivers to control their attitudes and moods. To stop shouting at patients and be patient and understanding.

“Point number one, nurses must lose the attitude we default because they are disrespectful and they shout at us. They must stop shouting because they are the ones that make us to default. Point number two the caregivers must also loose the attitude because this is their job, they must visit us so that we don’t feel scared to come to the clinic.”

4.3.4.2 Use of text messages as reminders

- Using text messages reminders so that patients will not forget their return date and any other information that can be sent to the patients

“If there can be sms reminders because I used to see that on television for example. The sms reminders can be sent to those who just started treatment.”

4.3.4.3 Privacy

- Using consulting rooms when giving out medications to provide privacy

“It would be better if we can have our special place in the clinic because others are very sick. Can’t we have a special room where I can go alone. Or when we are in the waiting room go to the consulting room so that someone who is sitting next to me won’t know what I came here for. Be treated like someone who has any other disease. The need for pills they do no react with or pills that counteract the side effects from the medication.”

“Maybe change the treatment if it can be changed and give me other pills together with the small white ones.”

4.3.4.4 Proper consultation times

- Nurses to spend time with patients so that they learn more about the treatment and they can feel free to ask if they have any questions

“Yes they must spend time and listen to whatever we want to say on that particular day.”

4.3.4.5 Plan on discrimination

- Government to come with a plan to curb discrimination against HIV patients

“People must stop discriminating us. We are discriminated against because of our disease. This is our disease we need to be supported and not be made a laughing stock. Government must come up with a plan.”

4.3.4.6 To be given information

- Patients need to be told more about the medication, its use, why it is important, what to do when going away, who to report to, the side effects, how to deal with the side effects and any other information about the medication.

“I think first of all people need to be told about these pills so that people can be knowledgeable and protect themselves.”

4.4 Conclusion

In summary, from the findings above it is clear that many patients are not taking their medication in the prescribed manner. Side effects, work and family issues, ignorance by patient, negligence by nurses and denial of HIV status have an impact on defaulting of the medication. Suggestions such as the use of text reminders, using consulting rooms for privacy, given information about the medication, to stop discrimination, should be implemented to curb the problem of defaulting by patients as it has an impact on their health. The success of reducing defaulting cases rest with both the patients and the health sector's attitudes and dedication in dealing with HIV and TB. Failure to do so may lead to high morbidity rates. The following chapter will deal with the discussions of results and recommendations.

CHAPTER 5

DISCUSSION AND RECOMMENDATIONS

5.1 Introduction

The chapter presents the research findings of the study and makes reference to relevant research to support the findings of the current study. In order to contextualize the research, comparisons are drawn with available literature on experiences of HIV positive clients defaulting isoniazid preventive therapy. This chapter provides conclusions that can be drawn from the research and offers suggestions for future research into factors leading to defaulting of isoniazid preventive therapy among HIV positive clients.

5.2. Discussion

This section focused on discussion of the results from the different themes and made reference to relevant research to support the findings.

5.2.1 Demographics

Defaulter rate is high among the age groups 20-29 and 30-39 of the participants. This finding is in line with the findings of (Ane-anyangwe, 2006b:589 and Dodor, 2004:1340) which indicated higher default among age groups of 21-40 and 25-44 respectively.

In this study defaulter of TB treatment cases and controls was high among females than the male respondents. This finding is contrary to the findings of

(Hill, et al, 2005:1351) that the rate of TB treatment defaulting was higher in males.

In this study the respondents received treatment from four clinics in the Buffalo City Municipality area. The majority of the respondents were diagnosed between 2011 and

2014. Also, the study revealed that the respondents have been on IPT between one to three months.

5.2.2 Reasons for not taking medication

The respondents in this study identified work and family related issues as their reasons for not continuing with their medication. This included missing return dates because they went away for work purposes and also had infants to care for. This finding substantiates the findings of (Muturu, Keraka, Kimuu, Kabiru, Ombeka and Oguya., 2011:696) who conducted a study in Kenya which indicated that from the 150 patients who did not complete treatment, 15 clients attributed their default to travelling away from the treatment locality thus missing scheduled appointments. Similarly, a Nigerian study (Akande and Abdulraheem, 2005:32) showed that among the reasons given for defaulting was travelling away from a treatment centre, though no association was shown with defaulting. Similarly, an Indian study (Jaggaraamma, Sudha, Chandrasekaran, Nirupa, Thomas and Santha, 2007:134) documented that a higher rate of migration from treatment centre was observed among patients who defaulted. They discovered that the movement was based mainly on occupational grounds.

This study revealed side effects as a reason why patients default their treatment. From their responses it is clear that HIV positive clients on IPT experience side effects which make them believe that the Isoniazid is worsening their condition. The concomitant use of anti-tuberculosis drugs with other drugs like ARV's could lead to unwanted side effects which can significantly influence defaulting. It is possible that minor adverse effects, which did not pose a danger in the clinician's view, nevertheless resulted in discomfort and contributed to a patients' decision not to continue treatment (Phillip, LoBue, Kathleen, Moser, 2003:445). This finding confirmed the findings of (Fry, Khoshnood, Vdovichenko, Granskaya, Sazhin, Shpakovskay, 2005:1030) which showed that the concurrent use of HIV medications with TB drugs increases the side effects associated with TB chemotherapy. Combining antiretroviral and TB drugs means taking many pills daily. This can be difficult and challenging to most patients.

In addition, (Chang, 2004:1125) in Hong Kong and (Ali, 2002:577) in Ethiopia find treatment side effects to be associated with default. Soriano (2002) in a qualitative study in Mutia, Zamboanga del Norte likewise stressed that most of those who defaulted did so because of inability to deal with drug's adverse effects. She further stressed that defaulters perceived that the health benefits of undergoing treatment were not worth suffering the negative side effects of the medicine. That long term goals of cure and recovery were disregarded by defaulters for the immediate goal of seeking relief from the discomfort brought about by the side effects of medication.

In this study participant's responses showed that negligence by nurses caused some clients to default on their medication. This finding is in line with the findings of Guillaume-Signoret, 2006:557 and Uwah, Oyenuga; Ekong, & Joshua, 2006b:76) that inadequate counseling and information provision by health personnel were the cause of TB treatment default. In addition (Selig, Belo, Teixeira, Cunha, Brito, Sanches, Luna, Muller, Gamba, Belo, Vento & Trajman, 2003:857) identified negative attitude of healthcare professionals toward TB clients leads to non-adherence with treatment.

The other reason that respondents pointed out includes stopping treatment because they were still in denial about their HIV status. Lack of privacy in the TB clinic affect treatment seeking behavior of TB clients because of the stigma attached to the disease and its associated social problems. Stigma or feeling uncomfortable to take drug in front of others was one of the factors for not adhering to IPT. In Ghana, (Dodor, 2004:1340) found that clients appeared to be ashamed of their condition. This finding confirmed the findings of (Johanson, Diwan , Huong & Ahlberg, 1996:180) that patients concealed their TB status from family members and friends to avoid social isolation and to protect their dignity. In addition, Rennie *et al.*, (2007:731) and Munseri *et al.*, (2008:1039) found low adherence to preventive INH treatment because of the fear of stigma.

Another reason for defaulting revealed in the study is the ignorance of clients. Some clients do not understand the importance of taking TB treatment or how it may affect them.

5.2.3 Quality of services provided

According to all respondents they have received poor services in terms of not receiving information on reporting when going away or sending someone to take medication if they are unable to do so. This finding substantiates the finding of Uwah, Oyenuga, Ekong, & Joshua, 2006b) who found that inadequate counseling as well as poor service delivery and attitude of health care providers cause clients to default treatment. In fact, a case control study carried out in Rio de Janeiro, Brazil revealed that most clients default treatment because they do not feel comfortable with doctors, their blood pressure is not checked and health care providers do not give them cards indicating review date (Salles, Conde, Cunha, Calcada, Menezes, Sa & Kritski, 2004:320).

In addition, a study in Ghana (Dodor & Afenyadu, 2005:829) found that 44% of client who completed treatment admitted good clients' provider interaction as the main motivating factor for completion of treatment. Similarly, a study in the Philippines (Auer, Sarol, Tanner & Weiss, 2000:650) found that a cordial relationship between patients and health staff enhances an effective treatment in TB clients. However, some studies (Teckle, Mariam, & Ali, 2002:577; Jaiswal *et al.*, 2003:625; Gopi, Vasantha, Muniyandi, Chandrasekaran, Balasubramanian, Shargie & Lindtjorn, 2007:68) have shown that poor client provider interaction influences defaulting.

The majority of the respondents had never had a visit from the community service workers to enquire why they stopped taking medication. It is very important for community services to visit client and enquire about their health. Some client may be ill which hinders their going to the clinic for their medication. If the community workers visit their client they will identify problems or reasons why a client has stopped taking medication and find solutions on how to help the client. This finding is in conformity with the finding by some studies which suggested that home visits improved adherence (Aisu, Raviglione & van Praag, 1995:269; Sanmarti, Megias & Gomez, 1993:29). Therefore, if possible, home visits should be used to follow-up the defaulters.

From the respondents' view one can note that some were given medication without an explanation of the duration and what it is used for. Proper communication between the health worker and the client is vital in order for clients to understand their condition and treatment. This finding confirms with a study conducted in Senegal by (Hane, Thiam, Fall, Vidal, Diop & Ndir, 2007:542) which affirmed that there was no proper communication between client and healthcare providers regarding diagnosis, registration and during continuity of treatment. Communication is therefore vital for proper treatment management and follows up. The low literacy levels and staff shortages in rural settings might also hinder proper and efficient information regarding the discharge of TB clients, which could be contributing to poor treatment follow ups and, consequently, defaulting on treatment.

5.2.4 Knowledge about the treatment

Almost a third of respondents did not know the duration of their treatment. On the other hand those who knew about the duration of the treatment did not know other information about the treatment such as the use of yellow pills for pain, what caregivers are, the importance of taking the medication and the consequences, information about side effects and getting medication in another town when one changes residence. This showed that most of the clients did not have knowledge about TB which led some to default. This finding is in line with other studies which found that poor knowledge about treatment regimens and clients' perception of benefits obtained from therapy was significantly associated with non-adherence (Rowe *et al.*, 2005:265; Alcabes, 2006:1195; Becker, 2000:325). Knowledge about the regimen and the disease has significant association with adherence which was inconsistent with the study conducted in Uganda (Wilkinson, 2005:625). A cross-sectional study in South Africa also showed no significant association between clients' knowledge about the treatment and the disease with adherence (Szakacs, Wilson, Cameron, Clark, Kocheleff, Muller & McCarthy, 2006:76).

5.3 Application of the Theoretical Framework

According to the theory of planned behavior, intention to perform a behavior is the central component in determining the behavior. Intent is influenced by attitudes, subjective norms and perceived control (Kerr, Weitkunat & Morreti, 2005) Adhering to the prophylactic treatment of isoniazid for HIV positive clients is the behavior. The decision the client has to take to comply with prophylactic treatment is the intention. In terms of the TPB model, intention is influenced by the client's attitude to complete the treatment as well as the extent to which his supporters, family and health care workers wishes him to finish the course of treatment. The findings of the study confirmed that behavior influenced clients' adherence to the IPT program.

5.4 Future Research

The researcher recommends that this kind of research could also be done for the whole Eastern Cape Province to get the full understanding of why people default IPT, as this study focused in the King Williams Town area which is mostly urban.

5.5 Recommendations

Respondents identified some suggestions that should help deal with the problems of defaulting. Those recommendations should be adhered to. The following are additional recommendations by the researcher:

- Establishing good rapport between clients and health care providers.
- Team building activities for health workers should be done to improve positive attitudes towards the clients thereby buying back trust.in health care systems.
- To minimize non-adherence due to migration, at the time of enrolment, movement potential should be assessed, adequate contact information about the programme should be provided to the participants, and arrangement should be made so that those who migrate can collect their supply of drugs in advance.

- Health care providers should recognize and understand HIV positive clients on IPT differences, and treatment should be offered based on the individual's needs and in context with their concerns. Workshops and in- service trainings for health workers on IPT, its benefits and existing guidelines should be run periodically.
- A system to monitor and evaluate the implementation of collaborative TB/HIV activities including the provision of IPT should be established.
- Client monitoring and education should be emphasized and practiced by health professionals.

5.6 Limitations of the Study

The researcher identified the following limitations in the study:

- The study was restricted to the King Williams Town area of the Buffalo City Metropolitan Municipality. Accordingly, the findings cannot be generalized to other municipalities or the whole country.
- The population for this study was generated from the public health facility, HIV positive clients on IPT not registered at the clinic but residing in the district were therefore not included.
- The study was conducted within the public health facilities meaning that the clients at private facilities were not included as the study was limited to public health facilities.

5.7 Conclusion

In conclusion, this qualitative study aimed at exploring and describing the lived experiences of HIV positive clients defaulting isoniazid preventive therapy services. The emphasis was on the factors leading clients to default. From the respondents' responses it can be noted that work and family related issues, ignorance of patients,

side effects, and negligence of nurses and denial of HIV status were identified as reasons for defaulting. Having knowledge about the treatment and health providers' attitudes to patients also played a role in patients defaulting in their treatment. Many suggestions were then put forward by the respondents to curb defaulting among patients. These included the use of text reminders, not to discriminate HIV patients because of their status, to use consulting rooms for privacy and also nurses and caregivers to control their attitudes when dealing with patients.

Therefore, having the knowledge on why patients default and what can be done to reduce defaulting is of great importance. While TB preventive therapy may not reduce the incidence of tuberculosis in the community, it may decrease the mortality rate of HIV positive clients by maintaining clients with no signs and symptoms of TB.

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7. ANNEXURES

7.1 ANNEXURE A:

CERTIFICATION OF APPROVAL FROM THE UNIVERSITY OF FORT HARE ETHICS COMMITTEE

7.2 ANNEXURE B:

**LETTER FROM THE EPIDIOLOGICAL RESEARCH & SURVEILLANCE
DEPARTMENT (DEPARTMENT OF HEALTH)**

7.3 ANNEXURE C:

LETTER FROM THE DEPARTMENT OF HEALTH

**7.4 ANNEXURE D:
PARTICIPANT INTERVIEW GUIDE**

**7.5 ANNEXURE E:
LETTER FROM THE CO- CODER**

7.6 ANNEXURE F:
LETTER FROM THE PROFESSIONAL EDITOR