Title:

Experiences of people living with HIV with respect to Isoniazid Preventive Therapy provision in Mafikeng PHC facilities

K Selehelo

Orcid.org 0000-0002-1864-3763

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Supervisor/Promoter: Prof L Makhado

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Student number: 12182737

DECLARATION

I **Keamogetse Sylvia Selehelo** hereby declare that this dissertation entitled **"Experiences of people living with HIV regarding IPT provision in Mafikeng in the North West Province''** is my own original work and has not been submitted to this or any other institution for a higher degree. All sources have been duly acknowledged in the references.

_____ _____

Signature Date

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ABSTRACT

Isoniazid preventive therapy (IPT) is a strategy that has been proposed by the National Department of Health (NDoH) and the World Health Organisation (WHO) for people living with HIV (PLWH) in order to prevent latent tuberculosis (TB) progressing to active TB.

This research focused on exploring and describing experiences of people living with HIV regarding IPT provision in Ngaka Modiri Molema district in the North West Province South Africa.

A qualitative, exploratory, contextual and descriptive research was used to collect data from people living with HIV. The study population comprised of 14 people living with HIV and semi- structured interviews were used to collect data. Data gathered through audio recording was transcribed into narrative form. Data were read and looked at in order to make sense of information gathered. The next step involved data coding where chunks of data were bracketed and words representing a category were written in the margins. Text data collected were segmented into paragraphs and categories were labelled with a term in the actual language of the participants. Transcribed data was analysed for themes and codes in order to facilitate data organisation. Transcribed data was analysed manually for themes and codes in order to facilitate data organisation.

Three main themes emerged during interviews namely: experiences of people living with HIV regarding IPT provision, factors inhibiting IPT provision and strategies to improve provision or adherence. The results of the study indicated that there was provision of IPT at a community health centre in Ngaka Modiri Molema district municipality.

It is recommended that more studies be conducted focusing on experiences of professional nurses who are providing IPT. IPT training should be made an integral part of the HIV and TB training modules for the entire health care profession. The IPT programme needs to be strengthened and monitored on a continuous basis to identify bottlenecks and to take corrective action where necessary. A data base for all people living with HIV who have been initiated on IPT needs to be established to promote tracking and to identify defaulters timeously

People living with HIV and professional nurses must promote and conduct awareness campaigns on a continuous basis to ensure that patients become aware of services rendered at clinics including provision of IPT. Through this, more people are likely to continue taking IPT leading to improved adherence.

Key words: Lived experiences, people living with HIV, IPT provision

TABLE CONTENTS

LIST OF ACRONYMS

ARVs	Anti- Retroviral drugs
CHC	Community Health Centre
DOTS	Direct Observed Treatment Short Course
FHI	Family Health International
HIV	Human Immune deficiency Virus
IPT	Isoniazid Preventive Therapy NDOH National department of health
NWU	North-West University
PHC	Primary Health Care health care
PLWH	People living with HIV
PDOH	Provincial Department of Health
TB	Tuberculosis
TST	Tuberculin skin test
UNAIDS	Joint United Nations Programme on HIV/ AIDS
WHO	World Health Organisation

1.1 INTRODUCTION AND BACKGROUND

Tuberculosis (TB) is one of the most challenging diseases globally. It is regarded as a curable disease, but despite that it is still a major cause of morbidity and mortality globally as well as in South Africa. In 2014, there were an estimated 450 000 new cases of tuberculosis (TB) and 61% of the new cases had both TB and Human Immune Deficiency Virus National Department of Health NDOH (2014:1). Tuberculosis (TB) has a huge impact on the lives of people living with human immunodeficiency virus (HIV) (PLWH). As the HIV infection advances, CD4 lymphocytes become reduced, depleted and the immune system becomes unable to prevent TB National Department of Health (2014:70). Due to the weakened immune system, PLWH are unable to fight TB infection and they are also prone to develop active TB which can be fatal and can be transmitted to other people World Health Organisation (WHO) 2015:1) . In essence, majority of deaths which occur among PLWH are mostly related lowered immune systems which leads to the development of opportunistic infections such as tuberculosis.

Isoniazid Preventive Therapy (IPT) is a strategy that has been recommended by the World Health Organisation (WHO) and was adopted by the National Department of Health TB in South Africa (Akolo *et al.*, 2015:105). The strategy was adopted in order to prevent dormant tuberculosis from developing into active tuberculosis NDoH (2010:2).

Since the adoption of IPT, many benefits such as the prevention of tuberculosis, improved survival and improved life expectancy have been observed among PLWH. Furthermore it has also been able to reduce the risk of tuberculosis (TB) by 33- 67% for up to 48 months World Health Organisation (WHO 2010:1). According to a study

conducted by Jassel and Bissai (2010:S160), IPT has been found to be a cheaper strategy than the cost of treating tuberculosis and the strategy could be used and be appropriate in countries that are poor and under-resourced.

Before starting PLWH on IPT, patients must be assessed and screened whether they have a cough for 24 hours or more, fever, loss of weight as well as drenching night sweats (NDoH 2016:94). The rationale for screening is to exclude active tuberculosis, ensure proper and relevant treatment is given and to prevent deaths due to tuberculosis.

PLWH are often asymptomatic, disease free and adhering to IPT may be a challenge to them. Being asymptomatic and disease free may convince them that they do not have to take IPT and whenever they experience IPT side effects, they may discontinue taking it and this quite often leads to poor adherence, culminating in the development of opportunistic infections like tuberculosis as well as TB deaths (Family Health International 360 [FHI] 2011:2). Furthermore, when they are faced with challenges like the unavailability of IPT, forgetting to take the drug, are not at their places of residence as well as stigma, they may be discouraged from taking IPT and this may lead to poor retention in HIV (Berhe et al. 2014:3). Retention in care refers to on-going, regular engagement of a patient, from the time one is diagnosed, in an continuous comprehensive package of follow up assessment, prevention, treatment, care and support services (NDoH 2016:6)

People living with HIV have a heightened risk as well as an increased susceptibility to infections including tuberculosis (NDOH, 2014:70). When they are provided with IPT and they are non- adherent, this often leads to poor health outcomes, morbidity and

mortality of TB will increase and these ultimately leads to increasing health care costs as the effectiveness of IPT will be compromised (NDoH 2016:12)

1.2. PROBLEM STATEMENT

Isoniazid preventive therapy has been initiated and is provided in all primary health care (PHC) clinics, including community health centres (CHCS) (NDoH 2010:3) However, PLWH who are on Isoniazid preventive therapy (IPT) in a community health centre in Mafikeng sub district do not complete the course of the treatment according to observations made by the researcher. They end up getting active tuberculosis as an opportunistic infection and tuberculosis (TB) which is the leading cause of death in the North West Province Provincial Department of Health [NWPDOH] 2010:17). This study therefore seeks to explore the experiences of people living with HIV since no known study has been conducted on patients' experiences of IPT thus far.

1.3. RESEARCH QUESTIONS

- What are the experiences of people living with HIV regarding IPT provision in community health centre in Mafikeng sub district?
- How can IPT be promoted and accepted by PLWH?

1.4. PURPOSE OF THE STUDY

The purpose of the study is to explore and describe the experiences of PLWH regarding IPT provision in order to derive strategies to improve IPT uptake in a community health centre in Mafikeng sub district.

1.5. OBJECTIVES

Objectives of the study are to:

- Explore and describe the experiences of PLWH) towards IPT provision at a community health centre in Mafikeng sub district.
- Derive adherence strategies to promote IPT uptake among PLWH at a community health centre in Mafikeng sub district.

1.6. SIGNIFICANCE OF THE STUDY

The findings of the study could assist policy makers and developers of guidelines on understanding consumers' experiences on IPT provision. The anticipated adherence strategies could also promote the uptake of IPT in the community.

1.7. DEFINITION AND OPERATIONALIZATION OF CONCEPTS

1.7.1 People living with HIV (PLWH)

Infants, children, adolescents and adults infected with HIV and AIDS (HIV/AIDS Glossary 2015:138). In this study, people living with HIV means all people aged 18 years and above who have tested HIV positive either through the rapid test and a confirmatory test or ELISA test.

1.7.2 Clinic /Community Health Centre (PHC/ CHC)

A community health centre is a facility that, in addition to a range of other primary health care services, normally provides 24 hour maternity and emergency services and has up to 30 beds where patients can be observed for a maximum of 48 hours (http://www.health-e.org.za/wp-content/uploads/2013/04/Health-services-briefing-doc.Pdf)

1.7.3 Isoniazid Preventive Therapy (IPT)

It is the administration of the drug isoniazid to individuals with dormant tuberculosis in order to prevent progression to active tuberculosis disease (NDoH, 2010:2). Adults and adolescents living with HIV who have unknown tuberculin skin test, must receive at least six months of IPT as part of the comprehensive package. Those who are tuberculin skin test positive should receive at least 36 months of IPT as part of the package (NDOH, 2016:96)

1.7.4 Experiences

It is the subjective perceptions of one's experiences of health or illness (Medical dictionary 2009: np). It refers to practical contacts with and observation of facts and events. It is also the knowledge or skill acquired by such means over time (Oxford Dictionary 2010: np)

1.8. RESEARCH DESIGN AND METHODS

1.8.1. Research design

A qualitative approach was undertaken to collect data from participants. Qualitative research is a systematic, interactive, subjective, holistic approach used to describe life experiences and give them meanings (Grove, Burns & Gray 2013:23).

An explorative, contextual and descriptive design was used. The rationale for choosing the design was that it allowed the researcher to explore and describe in depth understanding of participants about the phenomenon (Burns & Groove 2009:5)

1.8.1.1 Qualitative research

Qualitative research is a systematic, interactive, subjective, holistic approach used to describe life experiences and provide meaning for such experiences (Grove, Burns & Gray 2013:23). This type of research is conducted to explore, describe and promote understanding of human experiences, events and cultures over time. Through this approach, the researcher interacts and engages with PLWH by using semi- structured individual interviews and as a result, rich data was collected.

1.8.1.2 Exploratory

It is an approach for understanding the meanings individuals ascribe to a social or human problem (Creswell 2014:4). Exploratory research begins with phenomena of interest, but rather than simply observing and describing it, exploratory research investigates the full nature of phenomena, the manner in which it is manifested, and other factors to which it is related (Polit & Beck 2008:21). In qualitative research, the researcher conducts face to face interviews with participants. The interviews involve unstructured and generally open ended questions that are few in number and intended to elicit views and opinions from participants.

1.8.1.3 Contextual

Context refers to studies designed to people and situations in their natural states (Burns, Grove & Gray 2013:66). In a contextual study, the researcher is focused on a single event, case or specific phenomenon and its structural coherence. To ensure that the study is contextualised, data was collected from PLWH within one community health centre in Mafikeng. In the natural setting, the researcher had a face to face interaction with participants over time.

1.8.1.4 Descriptive

Descriptive research refers to exploration and description of phenomena in real life situations (Grove, Burns & Gray 2013:49). This approach is often used when the study does not fit one of the qualitative strategies. In the entire research process, the researcher kept focus on learning the meanings that participants hold about a problem, not the meanings the researcher brought to the research.

1.8.2 Study setting

Setting refers to the specific place or places where the data is collected (Brink 2013:59). In this study the setting is all PHC/CHC facilities in Mafikeng sub district within Ngaka Modiri Molema district, which is composed of five sub-districts and one of the four districts of the North West province. In this study, the setting was at one community health centre in Mafikeng sub district. The health centre was chosen because it had many people living with HIV who were initiated on IPT and others defaulted it.

1.8.3 Study population

Population is the entire group of persons or objects that is of interest to the researcher (Brink 2013:131). In this study, the target population included all PLWH in Mafikeng sub district who had been taking IPT at least for six weeks.

1.8. 4 Recruitment strategy

The researcher obtained permission from the operational manager of the health centre in order to check participants in the IPT. After obtaining names from the register, the researcher requested to check clinic files of PLWH in order to obtain their details from

their files. Participants were contacted telephonically by the researcher first who explained the purpose of study, respondents were informed of the date, venue and time of the interview. The day before the interviews, participants were reminded of the date, venue and time of interview.

The researcher contacted 14 participants telephonically and explained the purpose of study; respondents were informed of the date, venue and time of the interview. The day before the interviews, participants were reminded of the date, venue and time of interview.

1.8.5 Sampling criteria

A sample is a part or fraction of a whole, or a sub-set selected by the researcher to participate in a research study (Brink 2013:131). In this study, the sample included all PLWH in Mafikeng sub-district who have been initiated on IPT at least for six weeks. The researcher used purposive sampling as she did not know in advance how many participants were needed and she sampled continuously until data saturation occurred. 14 participants were sampled. The rationale for using this approach is that this allowed the researcher to select the sample based on the knowledge of the phenomenon being studied.

1.8.6. Data Collection

PLWH were interviewed face to face using semi- structured interviews in a private room at a community health centre. Interviews were conducted in the language that the patients were comfortable with and no language was excluded. Participants were requested to describe their experiences regarding IPT provision at the health centre in Ngaka Modiri Molema district municipality and paraphrasing and the researcher did

probing. Field notes were taken as they assisted the researcher in remembering and exploring expressions of patients during interviews.

1.8.7. Data analysis

Data was read and looked at in order to make sense of information gathered. The next step involved data coding where chunks of data were bracketed and words representing a category were written in the margins. Text data collected were segmented into paragraphs and categories were labelled with a term in the actual language of the participants. Transcribed data was analysed for themes and codes in order to facilitate data organisation. Additionally, ATLAS TI was also used to assist with sorting of data.

After collection of data, the researcher sorted and interpreted information to extract patterns and meaning. All data gathered though audio recording was transcribed into a narrative format in order to facilitate sorting and interpretation process. The transcribed data was analysed manually for codes and themes in order to facilitate data organisation. Additionally, Atlas TI was also used to assist with sorting of data.

1.8.8. Measures to ensure trustworthiness

To ensure trustworthiness of the analysis, researcher followed Guba's 1985 (86-87) criteria of ensuring credibility, transferability, dependability and confirmability.

Credibility (Internal validity) was addressed by having two researchers independently reading and coding the transcribed data. Transferability (external validity was assured by providing rich thick description (Cresswell 2014:201) and sharing the results with content experts and conducting further literature review. Confirmability (objectivity)

and dependability (reliability) was assessed by comparing transcribed data with extensive field notes taken during interviews.

1.9. ETHICAL PRINCIPLES

The following provisions were put in place to comply with ethical requirements:

The researcher requested permission, approval and an ethical clearance certificate from the North West University ethics and she was granted ethics clearance number NWU 00667-17-A9. Furthermore, approval was sought from the North West Department of health and from the operational manager of the community health centre.

After obtaining consent to obtain patient's details from their files by the operational manager of the health centre, participants were called. The researcher explained the purpose of the study to them, obtained their written consent and informed them about their rights and benefits. To guarantee anonymity, no names of participants and facility were mentioned in the report. To ensure confidentiality all the research data was kept under lock and key.

1.10. Chapter Outline

Chapter 1: Overview of the study
Chapter 2: Research design and methods
Chapter 3: Research findings
Chapter 4: Discussion
Chapter 5: Conclusion and recommendations

1.11. SUMMARY

In this chapter an overview of research was provided which entails introduction to the study, problem statement, aim, research question and significance of the study. The research design, methodology as well as ethical considerations were discussed briefly. In Chapter 2, a comprehensive research methodology is discussed.

CHAPTER 2

RESEARCH METHODOLOGY

2.1 INTRODUCTION

The previous chapter dealt with an overview of this research on experiences of PLWH regarding IPT provision in one community health centre in Mafikeng sub district. The purpose of this chapter is to describe the methodology used in the study, design, setting, population, recruitment strategy, sampling criteria, data collection, data analysis, measures to ensure trustworthiness and ethical principles.

2.2 RESEARCH DESIGN

Research design refers to the plan and approach followed by the researcher, methods of gathering information as well as methods of making conclusions (Moule & Hek 2011:30). The researcher conducted a qualitative, exploratory, contextual and descriptive study to identify and describe experiences of PLWH regarding IPT provision in a community health centre in Mafikeng sub district.

2. 2. 1 Qualitative research

The purpose of the study was to explore and describe the experiences of PLWH regarding IPT provision and uptake in Mafikeng PHC facilities. In order to achieve this, a qualitative study design using in-depth, unstructured, individual interviews.

Qualitative research is a systematic process of gathering information in a holistic approach (Burns, Grove & Gray 2013:23). It is undertaken in order to explore, describe and promote understanding of human experiences. Through this approach the

researcher was able to interact and engage with PLWH by using in-depth unstructured individual interviews and rich data was collected.

2.2.2 Exploratory

It is an approach for understanding the meanings individuals ascribe to a social or human problem (Cresswell 2014:44). Exploratory research begins with phenomenon of interest, but rather than simply observing and describing it, exploratory research investigates the full nature of phenomena, the manner in which it is manifested, and other factors to which it is related (Polit & Beck 2008:21). In qualitative research, the researcher conducts face to face interviews with participants. In this research, the researcher used semi structured interviews through asking open-ended questions and followed up on the clues about a specific topic that the participant provides. The greatest advantage of an interview is that the researcher can follow up and clarify information immediately and the researcher is the main instrument for collecting information.

2. 2. 3 Contextual

Context refers to studies designed to people and situations in their natural states (Grove Burns & Gray 2013:66). Qualitative studies are always contextual, as the data are only valid in a specific context and not meant for generalisation. In a contextual study, the researcher focuses on a single event, case or specific phenomenon and its structural coherence. The researcher studies the phenomena because the context is usually immediate and important to the researcher (Botma *et al*. 2010:195). In a qualitative study it is thus important to give rich, thorough, and vivid contextualised description of the research. To ensure that the study was contextualised, data was collected from PLWH at one community health centre in Mafikeng sub district where

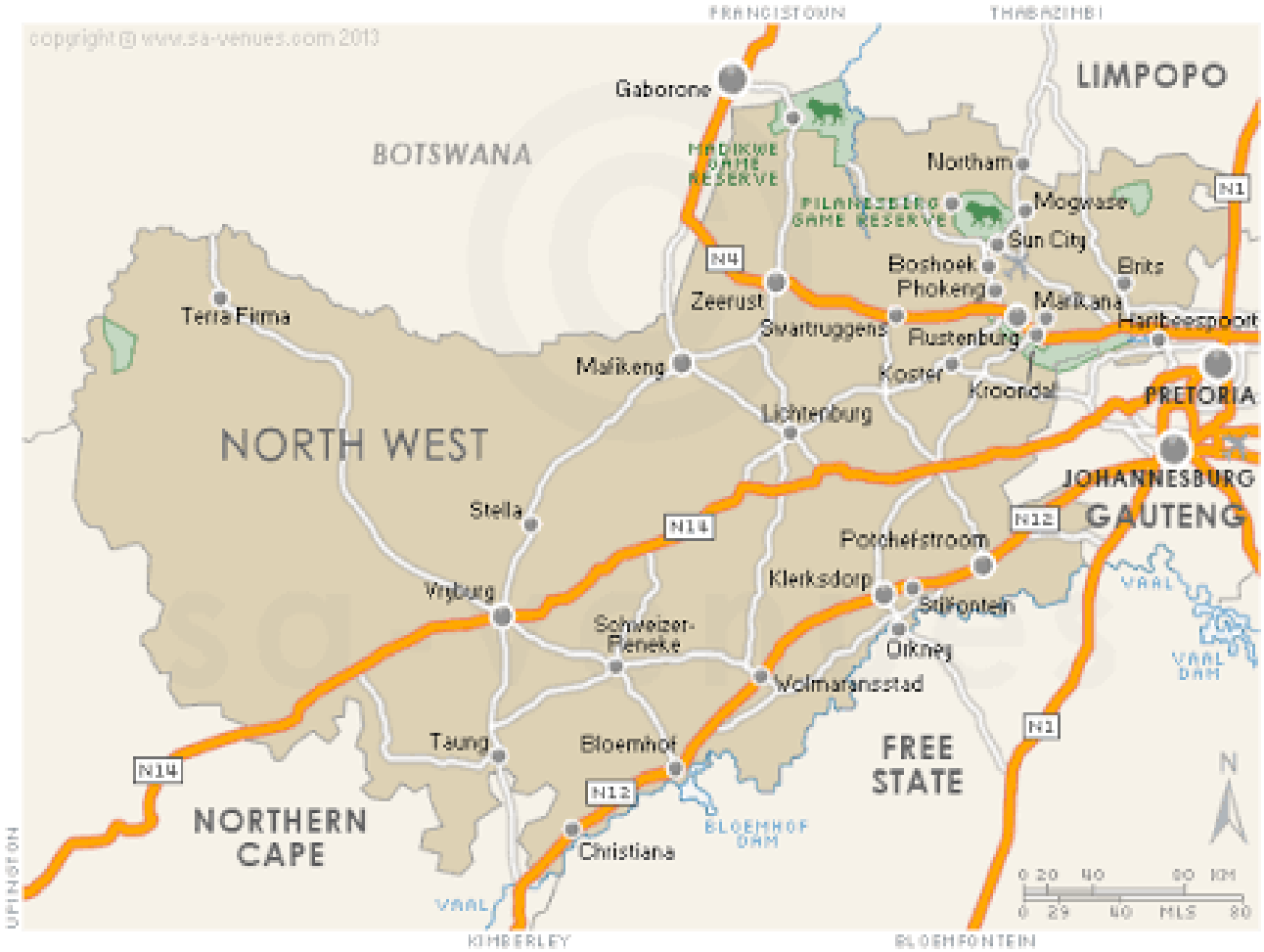
participants who were initiated to IPT and have experienced about the identified problem under study. In the natural setting, the researcher employed a face to face interaction with participants over a period of time.

2. 2. 4 Descriptive design

A descriptive design is a non-experimental one used if the researcher wants to describe phenomenon of interest as it naturally occurs (Botma, Greef, Mulaudzi & Wright 2010:110). The purpose of descriptive research was to explore and describe the use of IPT in PLWH in real life situations. The approach was chosen as the researcher wanted a clear description of patient experiences of IPT provision by a community health centre.

2. 3 STUDY SETTING

Setting refers to the specific place where the data is collected (Brink 2013:59). The study was conducted in one community health centre situated in Mafikeng sub district which is within Ngaka Modiri Molema district.



2.4 STUDY POPULATION

According to Burns and Grove (2009:343) population refers to all the individuals who are the focus of the research. Population is the entire group of persons or objects that is of interest to the researcher (Brink 2013:131). In this study, the target population included PLWH in one community health centre in Mafikeng sub district who have been initiated on IPT and collecting it for at least six weeks. Fourteen participants participated in the study; four were males and 10 were females. The ages ranged from age 25 to 55 and the level of education was grade zero (0) or never attended school to matric (grade 12) level.

2.5 SAMPLE

Sample refers to selection of individuals for a particular study (Grove, Burns & Gray 2013:44). In this research, the sample consisted of PLWH in Mafikeng sub district who were obtaining their IPT at the health centre who were initiated on IPT and been collecting IPT for at least six weeks. For this study, the participants meeting the following inclusion criteria were included in the study:

- All PLWH in Ngaka Modiri Molema District
- Initiated on IPT and been on IPT for at least six (6) weeks
- Aged eighteen(18) years and above
- The patient should be willing to participate voluntary after being informed on the research

2.6 SAMPLING

Sampling refers to selection of a group of people from the population in order to gather information regarding phenomenon in a way that represent the population of interest (Brink et al. 2013:132). A non-probability purposive sampling method was used. Participants were chosen by the researcher as they were able to provide rich data and a holistic perspective of the phenomenon. In this study different age groups were included including the young, the older, some females and some males, some residing near the clinic including those who were staying far from the clinic. Individuals were chosen because they were seen as knowledgeable or experts about the issues under study or the experiences. The rationale for using this approach was that it allowed the researcher to select the sample based on the knowledge of the phenomenon studied (Brink 2013:141).

2. 7 SAMPLE SIZE

In qualitative research, the size of the sample as well as the sampling plan are determined by the purpose as well as the philosophical basis of the study (Grove, Burns & Gray 2013:371). The adequacy of the sample size in a study is justified by the researcher. Fourteen interviews were conducted and data was collected until data saturation occurred (Polit & Beck 2008:357). Data saturation occurs when no additional or new information is collected and participants keep on repeating information that was provided by other participants (Grove, Burns & Gray 2013:371). In this study, data saturation occurred on the 14th participant where no new information was obtained.

2.8 RECRUITMENT STRATEGY

14 participants were contacted telephonically by the researcher first who explained the purpose of study and if they agreed to participate in the study they were informed of the date, venue and time of the interview. The day before interviews, participants were reminded of the date, venue and time of interview.

The operational manager of the community health centre gave the researcher permission to obtain contact details of the participants. The researcher contacted only PLWH who have been taking IPT for at least six weeks. At the time of the study 20 participants qualified to be included, sixteen (16) were contacted, four were not contacted, two (2) refused to participate in the study as they felt uncomfortable about their positive HIV status and all fourteen participants arrived for the interview.

2. 9 DATA COLLECTION

Data collection refers to the planning and gathering of information by the researcher (Botma et al. 2010:199). For this study, the researcher used semi- structured interviews in which the interviewer obtained responses from a participant in a face to face encounter (Brink 2013:157). The interviews were conducted by both the researcher and the research assistant who had knowledge about conducting interviews. The research assistant had received formal training to conduct interviews and has participated in data collection of many research projects. The interview guide was used during the interviews and before being used, it was piloted to four participants who were not included in the study. Interviews were collected at a private room at the community health centre and a no disturb signage was placed on the door of the room. Interviews lasted for 45 minutes up to one hour thirty minutes depending on information given by participants. In this study unstructured interviews were relevant as they allowed the researcher the flexibility to follow up particular avenues that emerged during the interviews. The purpose of the research, role of interview during research, approximate time required and confidentiality of information was explained to participants. The rationale for using the tape recorder was explained to the participants and permission was granted. Informed consent form was signed and participants were reminded that they are free to withdraw from the research at any point in time.

2. 1 DATA ANALYSIS

Data analysis refers to reduction of gathered information, trying to make sense of what the data means and ultimately making an interpretation of what participants indicated or trying to make a conclusion (Creswell 2009:183)

Audio- recordings were transcribed both by the researcher as well as the research assistant. Translation was done by the researcher with the assistance of the research assistant as she was knowledgeable and experienced.

Steps Followed During Data Analysis

Step 1: Organise and prepare: After interviews were conducted, they were transcribed, field notes were immediately typed, sorted and arranged into different types depending on the source of information

Step 2: Develop a general sense: Data was read through by the researcher and the research assistant so as to obtain a general sense of the information and to reflect on what it meant

Step 3: Coding: It is a process of organising material into chunks and segments of texts (Botma *et al*. 2015:224). Text data that was collected during data gathering, sentences and paragraphs were labelled into categories based on the language of the participant by the researcher and the research assistant.

Step 4: Describe and identify themes: Description involves a detailed rendering of information, about people, places or events in the setting (Botma *et al*. 2015:225). Number of themes were then generated and the themes were connected into story lines

Step 5: Represent findings: The approach used by the researcher in the data analysis included a narrative passage to convey the findings of analysis. This was done by both the researcher and research assistant as a co- coder.

Step 6: Interpret data: A final step in data analysis involves making an interpretation of the meaning of data (Botma *et al*. 2015:225). This was done by the researcher and research assistant as a co- coder.

2.11. MEASURES TO ENSURE TRUSTWORTHINESS

To ensure trustworthiness of the analysis, researcher followed Guba's (1981:86-87) criteria of ensuring credibility, transferability, dependability and confirmability.

2.11.1 Qualitative validity

It refers to the employment of procedures to ensure accuracy of findings Brink (2013: 171). The use of multiple strategies results in authenticity and credibility. Member checking to determine the accuracy of findings by reporting on the analysed data back to the participants, making thick and rich descriptions of data, the researcher self-reflecting to clarify possible biases, discussing contrary data as part of the identified themes, engaging in the research setting to gain an in- depth understanding of the phenomenon under investigation, peer debriefing and external auditing were all strategies undertaken to ensure validity Cresswell (2009:191-192).

2.11.2 Credibility

Credibility refers to the degree of confidence in the truth of the data and the interpretation thereof (Brink 2013:172). Confidence in the truth was established through the following techniques:

- Fourteen interviews were conducted
- Integration of data: Listening again to audio- tapes, reading through the transcripts and filed notes
- Prolonged statement- credibility was enforced by staying in the field until data saturation was attained. This ensured that the researcher got a thorough

understanding of the phenomenon including in other knowledge or information on the participants

- Peer debriefing: by discussing with colleagues trends of findings without breaking confidentiality and asking their opinion.
- Data was collected from the 16th of October till 10th November 2017.

2. 11. 3 Transferability

It refers to the applicability of the research findings in other contexts or other participants' (Brink 2013:173). This can be ensured by providing thick descriptions, purposive sampling as well as data saturation. Thick descriptions entails collecting and providing sufficient detailed descriptions of data within the given context and ultimate report on them. Purposive sampling ensures the range of specific information obtained from and about the particular context, by purposefully selecting participants in terms of the knowledge about IPT. Data saturation occurs when additional participants provide no new information and when themes that emerge become repetitive. The sample is then considered adequate and the data are considered rich and thick.

2. 11. 4 Dependability

It refers to the stability of data over time (Brink 2013:173). Techniques to ensure dependability are step by step repetition which assisted the researcher to provide a complete or thick description of the research methods. The other method for ensuring dependability was to conduct an investigative audit in order to determine whether data was presented reliably by the researcher. Through the investigative audit, consistency of data was confirmed (Rossouw, 2014:183).

2. 11. 5 Confirmability

It refers to the potential for congruency of data in terms of accuracy, relevance or meaning (Brink 2013:173). It is concerned with establishing whether or not the data represents the information provided by the participants and that the interpretations of the data are not figments of the researcher's imagination (Polit & Beck 2008:539).

2. 11. 6 Authenticity

Authenticity refers to the extent to which the researcher fairly and faithfully show a range of different realities (Polit & Beck 2008:540). In this study, the researcher ensured authenticity by conveying the feeling tone of participant's lives as they were lived.

2.12 ETHICAL PRINCIPLES

Ethical clearance was obtained from the NWU ethics committee (NWU00667-17-A9). Permission to conduct the study was granted by the North West province Department of Health before conducting the study. Before embarking on the research, the researcher requested permission from the sub district manager for Mafikeng sub district as well as permission from operational manager community health centre where data was collected.

Right to self- determination

It is based on the principle of respect for persons. This principle holds that humans should be treated as autonomous who have freedom to conduct their lives as they choose without external controls (Burns, Grove & Gray 2013:164). The researcher ensured autonomy by informing participants about the proposed study and allowed

them voluntarily to choose to participate in the study. In addition, participants were informed of the right to withdraw from the study at any given time without a penalty. No participant withdrew from the study and two participants refused to participate in the study as they felt uncomfortable about the positive HIV status

Right to privacy

Privacy is an individual's right to determine the time, extent, and general circumstance under which personal information is shared (Burns, Grove & Gray 2013:169). To ensure the above mentioned right, data was collected in a private place at the community health centre. A no disturb sign was posted on the door where interviews were conducted.

Informed consent obtained from participants, transcripts as well as original recordings were kept in a secure place by the researcher where no one could access them.

Right to fair treatment

It refers to the participant's right to fair selection and treatment (Brink 2013:36). The researcher selected the study population with fairness and selected PLWH as they were related to the research problem and not because participants were readily available or was easily manipulated. Anonymity was ensured by assigning participant's identities with codes regarding their participation in the study.

Informed Consent

In order to obtain the participant's consent, the researcher provided participants with comprehensive and clear information regarding their participation in the study. Participants were interviewed in the language of choice and no language was

excluded. The researcher explained the purpose of the study to research participants, obtained their written consent and informed participants about their rights and benefits. A written consent form was signed by the participants and they were also given a chance to listen to the audio tapes immediately. The researcher took steps to determine the participant understands by asking questions directly related to the information received and by avoiding medical jargon.

During the interviews, participants did not experience or show any discomfort and there was no harm involved in the study. Only one participant mentioned that he had payed transport to come to the health centre but all other thirteen participants indicated that they walked to the facility as it was not far. The researcher was not working at the community health centre where data was collected and was not known to the participants, however, the research assistant was known to some of the participants as she previously conducted some of the research at the community health centre.

2.13 SUMMARY

In this chapter, the research design, study setting, study population, sample, sampling, sample size, recruitment strategy, data collection, data analysis, measures to ensure trustworthiness and ethical principles were discussed.

CHAPTER 3

RESEARCH FINDINGS

3.1 INTRODUCTION

In this chapter the results of the qualitative data collected through the individual in-depth unstructured interviews among PLWH is presented. Data were collected from the 16th October to the 10th November 2017. After interviews were conducted, they were transcribed, field notes were immediately typed, sorted and arranged into different types depending on the source of information. Data was read through by the researcher so as to obtain a general sense of the information and to reflect on what it meant. Text data that was collected during data gathering, sentences and paragraphs were labelled into categories based on the language of the participants. Themes were identified, number of themes were then generated and themes were connected into story lines. The researcher used a narrative passage to convey the findings of the analysis. A final step in data analysis involved making an interpretation of the meaning of data (Botma et al. 2015:225).

The qualitative design yielded a greater understanding of the participant's experiences regarding IPT provision. This chapter comprises a brief description of participants' demographic characteristics followed by the findings of the study which are enriched by direct quotations from participants.

3.2 PATIENT DEMOGRAPHIC CHARACTERISTICS

The study was conducted at one community health centre in Ngaka Modiri Molema district municipality. Fourteen participants participated in the study, four were males and 10 were females. The ages ranged from age 25 to 55 and the level of education

was grade zero (0) or never attended school to matric (grade 12) level. The language used was comfortable to all the participants. The language used was Setswana as it is the language of communication in Mafikeng and one that the participants were comfortable to express their lived experiences.

3.3 EXPERIENCES OF PLWH REGARDING IPT PROVISION

Three themes emerged from the analysed data, namely, Factors facilitating IPT provision and uptake; Factors inhibiting IPT provision; and strategies to improve IPT provision/adherence. **Table 4.1** presents the themes, subthemes and categories that emerged from data analysis.

Table 3.1 Themes and subthemes that emerged from data analysis

Themes	Subthemes	Categories
1.Factors facilitating IPT provision and uptake	Organisational factors	1.Availability of IPT
		2. Positive attitude of nurses
		3.Management of IPT side effects
	Patient related factors	1.IPT is useful
		2.Adherence to IPT
		3.Benefits of IPT
2.Factors inhibiting IPT provision	Organisational factors	1.Unavailability of IPT
		2.Ruling out active TB
		3.Long queues and long waiting times
	Patient related factors	1.Pill burden
		2.Patients follow instructions and did not have knowledge about IPT
		3.Adverse side effects
3.Strategies to improve IPT provision/ adherence	Organisational and policy strategies	1.Strengthening the DOTS strategy
		2.Strengthening TB screening at each visit
		3.Prevention of stigma and discrimination
		4.Use of combination pill
		5.Use of adherence clubs social clubs
	Patient related strategies	1.Acceptance of one's own status
		2.Awareness campaigns by PLWH

3.3.1 Theme 1: Factors facilitating IPT provision and uptake

It was evident from the submissions of the patients that there is adequate provision of IPT in the community health centre in Mafikeng. PLWH indicated that after being diagnosed with HIV, they received IPT which protects them from getting tuberculosis. Provision of IPT according to participants assisted in reducing the number of people who were dying due to tuberculosis. Eight participants indicated that they were aware that tuberculosis was a killer disease.

> *"IPT is given to all people living with HIV and I am taking it once daily and in the morning only."* Participant 1, Female, 25 years of age

In addition, there are multiple factors that facilitate IPT provision and uptake. Factors facilitating IPT provision and uptake by patients were categorized into organisational and patient-related factors.

3.3.1.1 Sub- theme: Organisational factors

The organisational factors are inclusive of availability of IPT in the facility, positive attitude of nurses and management of IPT side effects.

Category 1: Availability of IPT

The availability of Isoniazid preventive therapy in the facility was confirmed by PLWH as an important factor, especially in the promotion of adherence to IPT. Certain participants indicated that IPT was available at the community health centre. They further alluded to the fact that due to its availability it encourages them to come and collect it on a monthly basis. A PLWH indicated that:

"When it is my return (Review/Follow-up) date to go to the clinic for collection of IPT, it was always available and I have never encountered any problems regarding its availability." Participant 2, female, 28 years of age

Category 2: Positive attitude of nurses

Provider attitudes to patients play an important role in patients' uptake, adherence or defaulting on IPT. The positive attitude of nurses, their support and education fosters a healthy relationship between a health care provider and a PLWH. It also offers dignified and respectful care to PLWH and serves as motivation for patients' adherence. PLWH expressed that they feel that they are accepted by nurses, educated about reasons for taking IPT and are given support where they encounter any side effects and they adhered to IPT irrespective of side effects. People living with HIV further emphasized that they are happy and grateful with the services they receive. A patient indicated that:

"*I am happy about the treatment, care, education and support we get from our nurses as it really helps us to adhere to treatment"* Participant 8, female, 43 years old

Another patient added

"I am grateful of the way nurses talk to me, they really care for me and they treat me with dignity and respect. I am also happy about the treatment, education and support I get from them." Participant 4, female 45 years old.

These credits revealed that nurses indeed can be sources of motivation and support if their attitudes and behaviours positively affirm to the PLWHs' expectations of dignified and respectful health care services. Thus, there is a strong need for nurses who

display such positive and reinforcing attitudes in a bid to promote their positive attitude and behaviours when dealing with PLWH.

Category 3: Management of IPT side effects

Before being initiated on IPT, PLWH need to be educated on the possible side effects of IPT. In this study, when some PLWH encountered side effects they continued taking it, while other participants discontinued taking it. The health education that is provided to PLWH before IPT provision ensured that they really knew and understood different side effects. This also provided PLWH with ways to report or overcome the side effects especially the ones that are manageable at the PHC facility. Some of the side effects which were indicated by participants included mild side effects like pins and needles, mild rash, and nausea. Even though participants had side effects they were very short-lived, manageable ones and they were still motivated to take IPT despite the side effects because they were given information prior to IPT initiation. It was revealed by a PLWH that:

> *"I had pins and needles in my hands and feet and I went to the clinic and they gave me another pill which made me feel better."* Participant 5, female, 32 years old.

Another participant added

> *"I continued taking IPT because I was educated by the nurses that I will feel dizzy, tired and have pins and needles in my hands and feet. I was informed that side effects will be temporary that is why I did not get worried."* Participant 6, female, 39 years old.

There is a need for nurses and other health care workers like counsellors to continue giving pre-treatment information about IPT, its side effects as well as the management thereof in order to ensure that participants do not stop or default from taking IPT on their own because of side effects.

3.3.1.2 Sub- theme: Patient-related factors

Isoniazid preventive therapy provision and uptake was also promoted and facilitated by patient-related factors that included that IPT is useful, benefits of IPT and adherence to IPT.

Category 1: IPT is useful

People living with HIV viewed IPT as a useful preventive therapy as they had accepted it and they were also willing and ready to continue with IPT interventions as it improved their health. Viewing IPT as being useful by PLWH encouraged patients to continue taking it because they had gained awareness of its usefulness, and this led to increased and sustained IPT adherence. Besides being a very useful tablet, it had prevented opportunistic infections like TB and also improved their health status. One PLWH expressed that:

> *"As a care giver and a participant, I work daily with TB patients on a daily basis. Some have symptoms of tuberculosis but here I am I do not have TB thanks to IPT. HIV does not kill people but people mostly die due to TB."*
> Participant 7, male, 43 years old.

Category 2: Adherence to IPT

In the case of PLWH adherence to IPT was perceived as preventing tuberculosis as an opportunistic infections and also preventing IPT resistance. Adherence to IPT is the responsibility of participants as well as health care workers. Participants who were educated about IPT and the risk of developing tuberculosis prior to starting it adhered better than those who were never given such useful information. Since IPT is given for a duration of six up to 36 months participants confirmed that they adhered to IPT as they were taking it once in the morning and it was collected only once per month at the clinics. Taking less number of tablets encouraged participants to adhere to IPT which was a good motivator as being given too many tablets is often associated with non-adherence. Furthermore, the shorter of treatment was a motivating factor as discerned from the participants. However, adherence regarding IPT is a challenge as clinics are always full of patients, nurses have to attend to all patients and this makes adherence counselling difficult to PLWH as there is insufficient time to counsel all of them.

> *''I am only taking it once in the morning and I am collecting it on a monthly basis''* Participant 8, female, 43 years old.

And

> *''I will be taking it for six months and I am happy about that.''* Participant 9, female, 42 years old.

The community health centre has high patient numbers that normally leads to insufficient time spent on counselling. This challenge is likely to channel participants into passivity and playing no active role in their care as they will be taking IPT because they have been advised to take it but not knowing its health benefits and its effects on the body.

Category 3: Benefits of IPT

People living with HIV verbalised that IPT offers them great benefits as it reduces pill burden thus instead of taking Anti-retroviral drugs (ARVs) and TB drugs they end up only taking ARVs and IPT. This is evident as IPT improves the health status of PLWH as TB is an opportunistic infection and a most common cause of death among PLWH hence they find IPT very beneficial in the prevention of progression of latent TB to active TB. These perceived benefits motivate PLWH to continue taking IPT, which promotes adherence to treatment and ultimately improves life expectancy. This was highlighted by PLWH in this way:

> *"Taking IPT has improved my health status and I will end up not taking both the TB treatment and ARVs"* Participant 10, female, 40 years old

And

> *"I was coughing and had lack of appetite before I started IPT. After being given IPT the cough became suppressed, my appetite improved and I started to gain weight. Thanks to IPT."* Participant 11, male, 33 years old

Category 4: Acceptance of one's status

There is need for awareness and acceptance of one's status, especially in chronic conditions like HIV. This acceptance and awareness ensures accommodation and receptiveness to healthcare information which in turn leads to adherence to preventive therapy**.** Accepting one's HIV status was a motivational factor, especially regarding IPT adherence and it was easy for PLWH to accept IPT just like they had accepted ARVs. Participants who disclosed their HIV status indicated that they had social support from relatives and families. This support encouraged them to honour their appointments; they also had quality time with health care providers.

> *''The main reason for me to take IPT was that I am aware that I have HIV, have accepted the status and that IPT is provided to all PLWH in order to prevent TB''* Participant 12, Female, 35 years old.

And

> *"I have told my employer about my HIV status and she has accepted me.''* Participant 13, Male, 28 years old

3.3.2 Theme 2: Factors inhibiting provision/ challenges

3.3.2.1 Sub- theme Organisational factors

There is always a challenge of drug unavailability in South African clinics. Three PLWH indicated that IPT was not available at times, highlighting the inconvenience, frustrations and increased clinic visits which in combination culminate in non-adherence to IPT. Lack of regular IPT supply may discourage participants, making

them lose trust in the health care system, and subsequently not coming back for follow-up visits, in the extreme scenario, participants stop treatment on their own.

> *"If IPT is not available when I come for my follow up treatment I was given another date for collection and it gives me a lot of work."* Participant 14, female, 32 years old.

3.3.2.2 Sub- theme: Patient related factors

Isoniazid preventive therapy (IPT) is given to all PLWH with dormant TB in order to prevent active TB disease. It is of paramount importance to rule out active TB disease in PLWH by asking the four screening questions and by performing a tuberculin skin test (TST). Ruling out active tuberculosis was a challenge in some participants as it was not done. Furthermore, patients who have had TST done on them are expected to come back to the Community Health Centre after three days for interpretation of test results. There was also a possibility that PLWH who have active TB could be given IPT instead of the full TB regimen and this could also lead to incorrect treatment being given, or reactivation of active tuberculosis as well as IPT resistance.

> *"Before being given IPT I was not asked any screening questions, I developed tuberculosis a month after being started on IPT" "* Participant 10, female, 40 years old.

And

> *"I reported to the nurses about my night sweats and nothing was done about it. The next time I went to the private practitioner he diagnosed me as having TB by taking chest X Ray which indicated that I had pulmonary tuberculosis"* Participant 14, female, 32 years old.

Category 1: Long queues and long waiting times

The emergence of TB/HIV and the implementation of other health programmes have brought challenges in PHC facilities**.** Clinics are invariably full of patients and there are staff shortages. PLWH indicated that the clinics are always busy with patients and they are overworked as there is a marked staff shortage. Nurses are always working under pressure and with an increased workload. This has led to PLWH not adhering to their IPT as they have to wait for longer periods before getting assistance and others have decided to stop the preventive therapy on their own without making nurses aware of the challenges.

> *"I am receiving IPT for the second time now. The first time I stopped due to long queues and long waiting times. A person has to spend 3 to 4 hours before getting assistance. I have stopped due to the same reasons mentioned above."* Participant 1, female, 25 years old

And

> *"I wait for plus minus four hours before I can be assisted by nurses. That is why I ended up stopping it."* Participant 2, female, 28 years old.

3.3.2. Sub theme: Patient related factors

Taking ART, IPT and other chronic conditions like asthma, hypertension and diabetes posed a challenge to some of the participants. To them taking chronic medications was not a problem as they understood they had to take their monthly medications; however, they did not understand the reason for taking IPT as a preventive therapy as they were asymptomatic and healthy. According to participants, According to participants, they felt discouraged by having to rely on many medications. Pill burden

was viewed as a challenge by participants in that too many pills is associated with non-adherence.

> *"I had to take medications for hypertension, diabetes plus IPT. To me, they are a lot of medications."* Participant 3, male, 50 years old

In order to deal with the challenge of high pill burden, there is need for production of a combination pill, which will consist of both ART and IPT.

Category 1: Patients following instructions without IPT knowledge

Before IPT can be commenced, PLWH need to be educated about the programme, clinical features of active tuberculosis, possible side effects as well as the duration of treatment. Most PLWH indicated that they are taking IPT only because it was recommended by nurses and they did not even know why they were taking it. Lack of knowledge could lead poor adherence to IPT or participants stopping it on their own

> *"I am only taking it because I have been told to take it."* Participant 6, female, 39 years old.

And

> *"I was not told for how long I will be taking it and I am only taking it because I have been told to take it."* Participant 11, male, 33 years old.

And

> *"I do not know the reason for taking that tablet as I do not have TB and I am healthy."* Participant 8, female, 43 years old

PLWH are given a one month supply of IPT during each visit. At every visit there is a need for nurses and health counsellors to conduct regular reinforcements, the need to educate PLWH regarding the IPT programme, seek clinical features of active tuberculosis, and possible side effects of IPT by active questioning as well as the duration of treatment at every visit in order to improve adherence and to ensure continued usage of IPT

Category 2: Adverse side effects

IPT is usually given to PLWH that are often asymptomatic except having HIV. To them the pill is not useful for preventing the disease that they do not have. This is a challenge as PLWH are taking IPT as a preventive medication and other participants adhered to it because they are aware of its benefits while other PLWH may feel there is no need for taking it as they are not sick. Some of the IPT side effects could not be managed at facility level even though patients have rights to be referred they were never referred to a visiting clinic doctor. PLWH verbalized that they were frustrated by side effects which were unmanaged at facilities. Even though some reported side effects they were never managed and they ended up consulting the private general practitioners. This is a challenge because it may negatively affect the patient's trust in the health care system.

> *"Immediately after starting IPT I started to have vomiting, darker skin complexion, lack of energy and mental confusion. Dr recommended only the diet for the dizziness but all other problems that I had were not attended."*
>
> Participant 9 female, 42 years old.

Another participant added

"I had itching of the skin, my head was spinning and I had diarrhoea which I never had before. I went to the facility told the nurses but nothing was done and then I decided to stop IPT. Since then I am not having the above mentioned problems" Participant 10, female, 40 years old

And

"I was taking IPT and as a result of side effects, I have decided to stop it and I am not prepared to take it any longer'' Participant 13, male, 28 years *old.*

3.3.3 Theme 3: Strategies to Improve Provision/ Adherence

3.3.3.1 Sub theme: Organisational and policy strategies

Category1: Strengthening the Directly Observed Treatment Short course (DOT) strategy

Direct Observed short course (DOTS) is a strategy that has been proposed by the World Health Organisation for monitoring of tuberculosis patients. As the strategy has proven to be effective, efficient and user friendly, PLWH verbalized that it should be followed as it is in order to reduce the defaulter rate and to prevent resistance to IPT. Participants verbalized that the support they got from family members, community workers and significant others assisted them in adhering to IPT which would in turn lead to successful completion of treatment.

"DOTS supporters just like in TB should be used to motivate PLWH." Participant 5, female, 32 years old

And

"PLWH who have been given IPT the relatives should ensure that one is taking it." Participant 3, male 50 years

Category2: Strengthening TB screening at each visit Screening PLWH to rule out active TB

Screening PLWH to rule out active tuberculosis disease is of vital importance. This will ensure that PLWH receive appropriate and relevant treatment. Initiating IPT without ruling active TB disease may lead to reactivation of active TB disease as well as IPT resistance. Some PLWH indicated there were not asked the four (4) screening questions before being initiated on IPT.

"I was not asked any question before being provided with IPT. I reported night sweats to the nurses and my problem was never attended to. I ended up consulting a general practitioner due to the night sweats who diagnosed me TB by chest x- ray." Participant 12, female, 35 years old.

Another participant added

"I developed TB a month after starting IPT." Participant 14, female, 32 years old.

There is a need for nurses to ensure that they screen PLWH at every visit using the four screening questions and to perform general examination on them to exclude any abnormalities earlier or to treat any problem timeously.

Category3: Strengthening the Directly Observed Treatment Short course (DOT) strategy

Direct Observed short course (DOTS) is a strategy that has been proposed by the World Health Organisation for monitoring of tuberculosis patients. As the strategy has proven to be effective, efficient and user friendly, PLWH verbalized that, it should be

followed, as it is in order to reduce the defaulter rate and to prevent resistance to IPT. Participants verbalized that the support they got from family members, community workers and significant others assisted them in adhering to IPT, which would in turn lead to successful completion of treatment.

> *"DOTS supporters just like in TB should be used to motivate PLWH."* Participant 4, female, 45 years old

And

> *"PLWH who have been given IPT the relatives should ensure that one is taking it."* Participant 3, male, 50 years old

It is a requirement to screen all PLWH to ensure that IPT has been given to those who qualify and to avoid late initiation. Failure to screen leads to missed opportunities and this may lead to increased rate of TB among PLWH. Participants verbalized they were not screened at every visit.

> *"They should be asked at every visit whether they are on IPT or have been on it. If they are not on the pill or had never been on it they should be screened for TB symptoms and if they do not have features of TB they need to be started immediately on it."* Participant 1, female, 25 years old

And

> *"I was not screened at every visit."* Participant 7, male, 43 years old

Despite the requirement of screening at every visit, some participants verbalized that they were not screened at every visit. They were only asked about any problems they had, given their IPT and a follow up date of when to come back.

Category 4: Prevention of stigma and discrimination

Stigma is a pervasive social process (Turan et al. 2017:863). PLWH are often stigmatized and this compromises their ability to adhere to IPT. Stigmatised participants chose to keep their status to themselves as they did not feel comfortable to disclose due to fear of strained relationships, rejection by significant others or isolation. In trying to avoid stigma, some participants resorted to not taking IPT. When participants notice that they are stigmatized, they will not conform to any health care messages given to them or they may not visit clinics for collection of IPT. Participants expressed that they were stigmatised by having different queues and community members know the consultation room for PLWH.

> *"Different queues should be avoided at the clinic because people can notice that we are collecting treatment for HIV."* Participant 2, female, 28 years old.

Another PLWH added

> *"And only one queue should be made for everybody so that people can stop labelling us."* Participant 5, female, 32 years old.

Health care workers need to empower PLWH who are on IPT by creating an atmosphere of trust in order to reduce the stigma. Furthermore, family members of PLWH who are willing to disclose their status should be involved so that they can offer support where necessary.

Category 5: Use of a combination pill

It is imperative to use a combination pill, which will include both ARVs and IPT in order to reduce the pill burden and promote adherence to IPT. Participants expressed that

the combination pill will benefit them as they will only be taking one combination instead of many tablets

> *"Combination pill can be made by the government so that an individual can just take one pill instead of many."* Participant 11, male, 33 years old.

And

> *"A combination pill will be effective as one does not have to take too many pills."* Participant 13, male, 28 years old.

Category 6: Use of adherence clubs

In adherence clubs, patients who are stable are grouped together voluntary and routine check-ups as well as follow up prescriptions. The adherence club can be managed by a lay health worker and not necessarily a health care professional. Clubs can either be established at the facility or in the community in order to spare patient's money for attending health care facilities. In these clubs, the members usually receive spaced appointments without having to queue, they are given basic health education, they are supported emotionally and concerns are discussed openly with peers (South Africa National Department of health, 2016:23)

> *''Adherence social clubs can be utilised where people can go and collect their medications without having to follow long queues'' Participant 6, female, 39 years old.*

3.3.3.2 Sub theme: Patient related strategies

Category 1: Awareness campaigns by PLWH

It is of vital importance for health care teams and PLWH to conduct awareness campaigns in order to impart knowledge to those who do not have the knowledge regarding IPT and to bring them on board. PLWH verbalized that they need to conduct awareness campaigns.

> *"Health talks should be given at clinics about importance of taking IPT and everybody must be educated about the importance of IPT."* Participant 9, female, 42 years old.

Awareness campaigns by PLWH will assist other PLWH who are in denial of their status. This will in turn promote adherence to IPT leading to successful completion of IPT. When awareness campaigns are conducted, most of the community members will be empowered and will have the knowledge on IPT and ultimately due to the acquired knowledge community members will support PLWH. Awareness campaigns will also make people to accept HIV just like any other condition, as some of the people are not fully knowledgeable about the disease.

Category 2: Acceptance of one's own status

There is need for awareness and acceptance of one's status, especially in chronic conditions like HIV. This acceptance and awareness ensures accommodation and receptiveness to healthcare information which in turn leads to adherence to preventive therapy**.** Accepting one's HIV status was a motivational factor, especially regarding IPT adherence and it was easy for PLWH to accept IPT just like they had accepted ARVs. Participants who

disclosed their HIV status indicated that they had social support from relatives and families. This support encouraged them to honour their appointments; they also had quality time with health care providers.

> *"The main reason for me to take IPT was that I am aware that I have HIV, have accepted the status and that IPT is provided to all PLWH in order to prevent TB"* Participant 8, female, 43 years old

3.4 SUMMARY

In this chapter factors promoting provision of IPT, challenges to IPT provision as well as strategies to promote provision to IPT have been discussed. The next chapter deals with literature control.

CHAPTER 4

DISCUSSION OF FINDINGS AND LITERATURE CONTROL

4.1 INTRODUCTION

The previous chapter presented the research results. This chapter discusses the findings of the study and literature control. The findings of the study indicated that there are facilitating organisational and patient related factors, whilst there are also inhibiting factors which could impede IPT provision and strategies implemented to alleviate IPT provision. The discussion will be made according to themes and sub-themes.

4.2. FACTORS FACILITATING IPT PROVISION AND UPTAKE

4.2.1 Availability of IPT

IPT must be available at all times when it is needed. Its availability motivated PLWHA to come back for their follow up visits and this led to improved utilisation of health care

According to the findings of the study IPT was available to some participants and for those participants who found IPT available, they were motivated to visit the community health centre. The findings of the study are in agreement with study conducted by Okoli and Roets (2016:1080). Their studies indicated that health care workers are accountable to the quality of care which is rendered to patients. Additionally, health care workers need to ensure that drugs are procured on time in order to avoid drug shortages at facilities. In essence. When there is continuous supply of medicines adherence treatment will improve adherence to treatment

In ensuring that the drug was available, professional nurses ordered medicines, prescribed and administered them to PLWH on time. They also ensured that they order IPT regularly on time, checked stock frequently to ensure that they do not run out of stock, they performed forecasting before ordering IPT based on the number of PLWH registered on the programme, ensured that stock cards are up to date and drugs ordered according to the essential drug list (EDL) and this led to PLWH receiving medications timeously during their follow up visits.

IPT must be available at all times as it leads to improvement of the health status of PLWH, improves their life expectancy as well as their survival. When the immune system is improved, opportunistic infections as well as tuberculosis deaths are lessened. The improved immune system leads to a reduction in opportunistic infections as well as reduced death rates. As a result of improvement of the immune system, opportunistic infections as well as tuberculosis related deaths are reduced or prevented (Goswami *et al.* 2012:1).

According to NDOH (2009:5), when medicines are available at health care facilities, patients honour their appointments dates for their follow up medications, they develop trust and display a positive attitude towards the health care system as it gives them what they need and consequently adherence to medication is improved.

Professional nurses have a vital role in ensuring availability of medicines at all times in health care facilities. By ensuring availability of medicines throughout, lives of PLWH will be spared, their health status will be improved and increasing health care costs associated with non-adherence can be prevented (Jimmy & Jose 2011:156).

4.2.2 Positive attitude of nurses

PLWA need to be treated in a dignified and friendly manner in order gain their trust and satisfaction of care that is rendered ultimately leading to improved adherence. In this study, findings indicate that patients were welcomed in a friendly manner and this encouraged and motivated them to continue taking their IPT.

Positive attitudes of nurses are enablers regarding patient treatment. Positive attitude of nurses is necessary at it encourages patients to continue taking medications as prescribed (Ndou, Maputle & Risenga 2016:3). When professional nurses display positive attitude towards patients they will be retained in HIV care. Retaining patients in HIV care is an advantage to PLWH as they can be attended to immediately when they become sick and many deaths will be prevented (Magnus *et al*. 2012:297)

4.2.3 Management of IPT side effects

Preventive therapy just like any other drug has side effects which include nausea and vomiting, jaundice, dark urine, right upper quadrant abdominal pain, convulsions, severe rash, psychosis as well as peripheral neuropathy (NDoH 2010:6) are mild and manageable. In this study, one participant developed a mild itching skin rash, three had headache, two dizziness and three had peripheral neuropathy. In order to overcome peripheral neuropathy, Pyridoxine has to be increased to 50 mg up to 75 mg. Most of the side effects experienced by participants in the study were mild and were managed at facility level by professional nurses. The findings of the study indicate that side effects of IPT were mild and could be managed at facility level by professional nurses. Management of IPT side effects by professional nurses improved adherence and it improved retention in HIV care.

The findings of the study are in line with the guidelines of the Department of Health (NDoH 2014:43) which established that IPT has minor and less serious side effects which could be managed at facility level by reassuring patients or treating them according to symptoms that they have. Grant *et al.* (2010:146) further supports that IPT side effects are less serious. In their study, they established that the majority of side effects which were encountered by participants were less serious, no medications were needed to treat PLWH and side effects of IPT could be managed by giving PLWH relevant and appropriate advice on how to overcome them.

4.2.4 IPT is useful

The study findings indicate that IPT was perceived as a useful medication by many participants. Ten participants in the study indicated that they found IPT to be useful as some were coughing; others had lack of appetite while others had loss of body weight. They indicated that after some weeks being on IPT their cough was suppressed, some noticed that their appetite improved and others gained some weight. The perceived usefulness of IPT motivated PLWH to come for follow up visits, improved adherence to IPT and improved retention in HIV care. IPT is useful as it can be used to prevent progression of infection to primary complex in recently infected asymptomatic individuals. Additionally, it is also used to prevent development of active TB in PLWH (NDoH 2014:100, WHO 2012:23).

4.2.5. Adherence to IPT

The findings of this study indicate that most PLWH reported to be adhering to IPT among PLWH. PLWA adhered to IPT as a result of availability of IPT at facilities, professional nurses displayed a positive attitude towards them, and some PLWH were educated and counselled before being initiated on IPT.

The results of this study are in line with a study conducted by Shayo et al. (2015:1) indicating that when PLWH are counselled and educated before IPT initiation, they adhere to the information given to them, become convinced about IPT and this leads to improved adherence (Shayo et al. 2015:1)

Mindachew *et al.* (2011:5-6) established in their study that PLWH need to be provided with information regarding IPT to ensure their full support, motivation, participation and co-operation with treatment. Providing such information to PLWH ensures their full understanding of the reasons of taking IPT, benefits thereof while at the same time it encourages adherence to preventive therapy and promotes retention in HIV care.

4.2.6 Benefits of IPT

Findings of this study indicated that IPT was viewed by most PLWH as having the ability to offer protection against active tuberculosis and this motivated PLWH to continue taking it. Due to the perceived benefits, most of PLWH reported adherence, it also promoted retention in HIV care and the health status of PLWH improved.

IPT benefits PLWH as it suppresses dormant tuberculosis not to develop to active tuberculosis disease (Golub et al. 2015:643). Suppression of dormant tuberculosis lead to improved survival and deaths which is likely to occur as a result of tuberculosis become reduced (Golub *et al.* 2015: 643).

The findings of this study concur with study conducted by Joint United Nations Programme (UNAIDS 2012:12). Their studies established that since the introduction of collaborative TB/ HIV initiatives including IPT provision, 1.3 million lives have been saved since 2005 till at the end of 2011 (UNAIDS 2013:6)

This is a clear indication that when PLWHA perceive IPT as being beneficial to them, they are likely to adhere to it due to the perceived benefit which include that their health status is likely improve, ultimately more lives would be spared and this can lead to less costs incurred by the department of health.

4. 3 FACTORS INHIBITING IPT PROVISION

4.3 Unavailability of IPT

Shortage of medicines can also occur when medicines are ordered late, or ordered stock is delivered late to the facilities, or stock controls are not managed accordingly, or professional nurses perform incorrect medicine forecasting due to lack of skills and knowledge, or increased workload. When PLWH come to facilities for follow up visits, they do not get their monthly supply as medicines are not there and they have to be provided with another follow up date (Zuma & Modiba 2017:11).

It is difficult and challenging for patients to complete the full course of IPT when it is not available (Okoli & Roets 2016:1080). Furthermore, patients become frustrated, disgruntled, loose hope and faith in the health care system and this ultimately leads to poor adherence.

4.3.2 Ruling out active TB

PLWH need to be screened for active tuberculosis disease before being initiated on IPT and also during subsequent visits. In this study, ruling out active tuberculosis disease was an inhibiting factor to IPT provision and was done sub-optimally as it was done to some PLWH and not all were screened. Some of the PLWH who were initiated on IPT were not screened for tuberculosis and ended up being diagnosed with tuberculosis meaning that they had active tuberculosis before initiation of IPT. Being

diagnosed with active tuberculosis created a challenge as IPT had to be stopped immediately and patients had to be given the full TB regimen.

Lack of TB screening among PLWH can be due to long queues, prolonged waiting times as some patients had to wait for more than for hours before they could be assisted. Furthermore, shortage of professional nurses in rural settings is a challenge (William, Peter & Goon 2015:343). This results in failure of nurses to screen PLWH due to increased workload.

Screening of active tuberculosis needs to be done even though there are staff shortages and long queues as PLWH have a heightened risk of developing active tuberculosis (NDoH 2015:91). Screening for tuberculosis is necessary and will assist in identifying TB cases timeously; ensure that patients are provided with relevant and appropriate treatment and ultimately the risk of tuberculosis spread will be lessened.

4.3.4 Long queues and long waiting times

Patients utilising the public health care facilities in South Africa have a challenge of long waiting times for services to be rendered (NDoH 2015:7). It is not surprising in this study when some of the PLWH waited for more than four hours before they could be assisted.

Long waiting times and long queues frustrates patients, they become dissatisfied with health care services, become disgruntled, lose faith, hope, trust in the health care system and ultimately they do not honour their given appointment dates or follow up visits (Umar 2011:82) and furthermore, it can be deduced that failure to honour appointment dates or follow up visits leads to poor IPT adherence and poor retention in HIV care.

4.3.5. Pill burden

Pill burden was an inhibiting factor and a challenge in IPT provision in this study. Some of the patients were on chronic conditions like asthma, diabetes mellitus as well as hypertension. These patients had to take treatment for their chronic conditions including ART as well as IPT. Administering many drugs at the same time made patients not to adhere IPT due to unpleasant side effects which encouraged patients to stop taking IPT on their own.

The findings of this study are in agreement with the study findings by Swaminathan, Padmapriyadarsini and Nareden (2010:1377), indicating that since the discovery of HIV and AIDS, challenges like pill burden, non-adherence to medications as well as drug interactions have been encountered by PLWH.

When PLWH take more than one medication, there is a possibility that they can encounter side effects from the given treatment. Side effects can discourage them from adhering to prescribed medications including preventive therapy (Makunjola, Taddesse & Booth 2014:5). In such instances, patients can opt to take some of the medications which they feel is important to them and omit other medications which are viewed as unnecessary.

4.3.6. Patient following instructions and did not have knowledge about IPT

Lack of patient knowledge is a challenge that needs to be attended to. In this study, there were PLWH who were taking IPT without having full knowledge of the regime, its importance, and its effects on the immune system, benefits and side effects as they were never informed or educated by the nurses. According to the observation made

by the researcher, as a result of high influx of patients and increased workload, professional nurses end up having very limited time for counselling patients

When PLWH are offered IPT without being educated about its purpose and its duration, they do not become convinced that it is important to take it (William, Peter & Goon 2015:338). Lack of IPT knowledge leads to poor adherence by PLWH, they may develop opportunistic infections like tuberculosis as a result of a suppressed immune system and ultimately increased deaths will occur if they are not treated for tuberculosis (Rutherford *et al.* 2012:4).

Providing treatment to patients without adequate education is a challenge as patients tend to be not convinced of the need to take treatment and this may lead to poor adherence; the condition of the patients may become advanced and deterioration may occur (Jimmy & Jose 2011:156). Poor adherence to IPT may also lead to overstretching and depletion of the health care budget because of treating patients who are continuously ill due to opportunistic infections.

4.3.8 Adverse side effects

Adverse side effects refer to conditions like hypersensitivity rash, hepatotoxicity as well as convulsions (Grant *et al.* 2010:S31-S32). Adverse side effects need to be managed and attended as soon as they are reported by PLWH as they have the ability to lead to poor IPT adherence and development of opportunistic infections. (Adams *et al.* 2014:9). In this study, findings indicate that participants who developed adverse side effects like hypersensitivity rash, vomiting, darker skin complexion reported them to the nurses and nothing was done.

Hepatoxicity has been found to occur rarely and it affects small number of people who are abusing alcohol (WHO 2015:1). In this study, one participant developed hypersensitivity rash, two had nausea, one developed darker skin complexion and one had mental confusion and no hepatitis or hepatotoxicity was experienced by PLWH. This clearly indicated even though adverse side effects can occur among PLWH, only a small number of people will be affected.

Monitoring of adverse side effects can be done by providing PLWHA with education in order to ensure that they seek help when they encounter these effects rather than stopping treatment on their own.

4.4 Strategies to improve IPT provision/ adherence

4.4.1 Strengthening the DOTS strategy

There is need to strengthen the DOTS strategy in order to improve adherence to IPT as well as to ensure continuity of care among PLWH. With the DOTS strategy, treatment supporter support the patient while taking treatment (NDoH 2014:56). The DOTS strategy ensures that patients are supported, monitored and supervised by DOTS supporters as they take their medications. The strategy will ensure that PLWH continue taking their IPT as prescribed.

With the DOTS strategy patients are normally supervised where they work, at communities or at their respective homes. In order to promote adherence, support and motivation towards medications, patients usually choose their own relatives as their DOTS supporters, other supporters can be assigned by the health care team (Giyose & Tshotsho 2015:364).

The DOTS strategy is a multi-disciplinary strategy that requires the involvement of the nurses, the community, the patient and relatives as well as the community at large. Through this strategy each and every person gets involved in ensuring adherence to IPT, responsibilities are shared among all members of the multi-disciplinary team and patients are supported on an on-going basis. Consequently, patients can be monitored closely, compliance will be ensured and there will be early detection of adverse side effects (NDoH 2014:56).

4.4.2 Strengthening TB screening at each visit

Screening PLWH is a strategy proposed by participants in the study. Screening PLWH at each contact with the health care system ensures early detection of tuberculosis, TB treatment is initiated and commenced timeously, transmission of tuberculosis from one person to the other is minimised and many deaths which occur as a result of tuberculosis are prevented (Turinawe *et al.* 2016:2);

Failure to screen PLWH on a continuous basis is detrimental to the health of PLWH as active tuberculosis will not be detected early. This can lead to development of active TB as an opportunistic disease and patients may end up dying as a result of developing active tuberculosis (Harries 2010:1910).

Therefore, despite long queues, long waiting times and shortage of staff intensified TB screening among all PLWH needs to be conducted in order to improve the health status of PLWH and to improve their life expectancy.

4.4.3 Prevention of stigma and discrimination

HIV is a condition that has been stigmatised since its discovery. Findings of this study indicate that professional nurses and other health care workers did not discriminate

and stigmatise PLWH. Stigma which occurred in this study was internalised by the participants. They indicated that they were being sent to porter camps (Exterior, Isolated and distinguished consulting rooms) for their medications and everybody at the facility knew that most of the patients collecting treatment there (porter camps) was living with HIV. Porter camps are temporary structures or temporary clinic buildings that have been bought by the department in order to relieve fixed clinics from overflowing with patients.

HIV related stigma and discrimination is a challenge to PLWH. Whenever PLWH experience stigma and discrimination, they will not utilise health care facilities even if they have any condition that needs immediate attention. Failure to utilise health facilities leads to poor IPT adherence and poor retention in HIV care (Mindachew *et al.* 2014:3).

Horter *et al.* (2017:57) supports the above mentioned findings. Their studies established that whenever PLWH experience stigma, they become reluctant in attending health care facilities as they have fear that health care workers might breach their confidentiality and the positive HIV status of PLWH may be made publicly known.

Internalised stigma can be prevented among PLWH by encouraging them to disclose their status in order to be supported on an on-going basis. Additionally, HIV related stigma can be prevented by educating people regarding HIV and AIDS, by conducting awareness campaigns in order to ensure acceptance of the condition, to allay fears and misconceptions regarding HIV and AIDS (UNAIDS 2012:19).

4.2.4 Use of combination pill

Study findings established that there is a need to take a combination pill. Most of PLWHA in this study were on ART, some were hypertensive patients, and others were cardiac as well as diabetic patients. Taking too many pills was a challenge to them and they felt that they should be provided with a combination pill consisting of both IPT and ART. Additionally, a combination pill will not be suitable for other PLWH because others are not eligible for IPT especially those with active tuberculosis or those abusing alcohol.

In order to ensure success and effectiveness of the IPT programme, adherence to medication must be ensured and promoted. Using a combination pill will assist PLWH in tolerating and accepting IPT due to reduced side effects. Additionally, taking a lesser number of medications encourages patients to continue taking it as prescribed and this leads to improved retention in HIV care (Manikandan 2012:199-200).

4.2.5 Use of chronic adherence clubs

Using chronic adherence clubs was one of the strategies proposed by PLWH in order to promote acceptance of IPT. Through chronic adherence clubs PLWH will be able to collect their IPT without going to health facilities. This will assist in reducing influx of patients attended at primary health care facilities. In addition, social clubs will assist with stigma and discrimination reduction and PLWH will also benefit from the support given by their peers (Venables *et al.* 2016:22).

The use of chronic adherence clubs social club is supported by the South African National Department of Health which advocates that adherence clubs need to be formed where stable patients will be grouped together for routine checking up and

follow up of prescriptions (NDoH 2016:23). In social clubs, patients are provided with appointment dates which they must honour. Providing patients with appointment dates is necessary and vital as the health care system will be off-loaded, long queues at facilities will be eliminated and patients will be supported emotionally by their peers

4.2.6 Awareness campaigns by PLWH

People living with HIV (PLWH) who have been initiated on IPT, those who completed it as well as professional nurses need to conduct awareness campaigns. Through campaigns, PLWHA will be educated about IPT, its benefits, side effects, duration of taking treatment, purpose of taking it and its adverse side effects. PLWHA will also share their experiences, get psychological support from peers and this will assist with HIV disclosure. Furthermore, this leads to a heightened sense of self-understanding (Steward *et al.* 2008:12341234).

Awareness campaigns will benefit PLWH by offering them the support they need. Continuous support offered to PLWH, will enable them to disclose their positive HIV status (Greef 2008:317). This will assist in improving IPT adherence leading to improvement in retaining patients in HIV care.

4. 2. 7 Acceptance of one's own status

Accepting HIV positive status is vital in order to ensure engagement of PLWH with HIV care, access to social support, and quality counselling. Acceptance of a positive HIV status motivates PLWHA to have a positive attitude regarding HIV and AIDS (Horter *et al.* 2017:52- 59). When PLWH accept their HIV positive status they will disclose their positive HIV status and they will not have fear of being rejected or being

ostracized. This will ensure social support, reassurance and encouragement of clinic visits.

4.5 Summary

This chapter discussed findings of the study as well as literature control. Factors promoting, inhibiting factors regarding IPT provision as well as strategies to promote acceptance and adherence to IPT have been discussed.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS OF THE STUDY

5.1 INTRODUCTION

This chapter discusses the limitations of the study, provides recommendations and conclusions.

5.2 LIMTATIONS OF THE STUDY

The main limitation of the study was that a majority of the participants (10) were women and only four (4) were men. This is due to the observation fact that majority of men are generally reluctant to seek health care services and women are the major health care.

The study was conducted in one community health centre in Mafikeng sub district and data was collected in one facility only, thereby limiting the extent and scope of the investigation. Consequently, the findings of the study cannot be generalised to other settings. Data collection when participants came to collect their IPT was done during working hours and this might have led to long waiting time for participants.

5.3 STUDY RECOMMENDATIONS

5.3.1 Nursing education

- The IPT programme must be incorporated into the training curriculum for undergraduate students in order strengthen the integration of TB/HIV programmes and improve pre-service nurses' skills regarding IPT.

- Regular and continuous in service training of professional nurses must be conducted to keep them abreast of any changes pertaining to IPT
- The IPT programmes need to be strengthened and monitored on a continuous basis to identify bottlenecks and to take corrective action where it is necessary.

5.3.2 Nursing practice

- Continuous support, mentoring, monitoring and evaluation is necessary in order to identify IPT challenges.
- IPT must be available at all times to ensure promotion of PLWH adherence, continuity of care and retention in HIV care.
- The HIV programme coordinator should monitor the programme on an on-going basis to identify challenges and take corrective action where necessary.
- PLWH need to be assessed for IPT readiness before they can be initiated in order to improve adherence, continuity of care and retention in HIV care.
- A database for all PLWH who have been initiated on IPT needs to be established to promote tracking and to identify defaulters timeously.
- There has to be a concerted lobby for other health care workers like community counsellors in order strengthen TB screening.
- DOTS supporters must be empowered in order to strengthen the DOTS strategy for IPT.
- Awareness campaigns must be conducted at community level in order to promote acceptance of positive HIV status, reduce stigma and discrimination among PLWH.
- Effective evaluation of the IPT programme in Ngaka Modiri Molema district needs to be a conducted.

- Cost benefit analysis must also be undertaken to assess the efficiency and effectiveness of the programme.
- Adverse side effects must be attended to by professional nurses in order to prevent PLWH from stopping IPT on their own when they experience adverse side effects.
- All PLWH who experience adverse side effects must be referred to a visiting doctor or be referred to hospital for further management.
- All PLWH who default IPT must be traced on time and restarted on IPT in order to ensure completion of IPT.
- Traditional leaders, healers and the community at large need to be empowered on IPT in order to support PLWH regarding IPT.
- A fast queue system must be implemented to ensure that PLWHA do not wait long periods at the facilities.
- Adherence clubs must be established in order to provide support and disclosure among PLWH.
- Professional nurses must conduct awareness campaigns on IPT in order to promote it.

5.3.3 Nursing research

Further research must be conducted on the following:

- Research on experiences of professional nurses providing IPT to PLWH in Ngaka Modiri Molema needs to be conducted.
- There is need for research in order to determine the effectiveness of IPT among PLWH as majority of PLWH reported that it improves their health status.

5.4 CONCLUSION

The study identified that there are promoting factors as well as inhibiting factors regarding IPT provision. Organisational factors which served as promoting factors included availability of IPT and this motivated PLWH to come for their follow up medications; it improved adherence to IPT as well as retention in HIV care. However, in instances where IPT was not available, PLWH were frustrated as they had to be given another follow up visit leading to increased clinic visits.

PLWH believed that IPT offered protection to them by improving their health status and suppressing latent tuberculosis so that it does not progress to active tuberculosis. This perceived benefit encouraged them to continue taking their IPT on a continuous basis leading to improved adherence and retention in HIV care.

Positive attitudes of professional nurses encouraged PLWH to continue taking their IPT as they were welcomed in a friendly manner and they were assisted irrespective of their status. Professional nurses need to continue displaying such positive and reinforcing attitudes to PLWH in order to reduce stigma and discrimination among them.

Unavailability of IPT was a challenge to PLWH. In such instances, PLWH had to be given another follow up date for collection of IPT and this led to increased clinic visits among patients. Unavailability affected adherence and continuity of care negatively as some had to stay for days without treatment.

Ruling out active tuberculosis before IPT initiation and during follow up visits was not consistently done. Some PLWH were diagnosed with active tuberculosis soon after being initiated on IPT. Some of the reasons for not ruling out active tuberculosis were long queues, long waiting times as well as severe staff shortages.

Long queues and long waiting times are lived experiences revealed by the participants. As a result of long queues, PLWH were disgruntled, dissatisfied and this led to reduced health-seeking behaviour leading to poor adherence to IPT. Long queues at facilities can be managed at health care facilities by appointing queue marshals, establishing a fast queue system for patients who are coming only for collection of their treatment. Additionally, establishing social clubs could assist with long queues as stable patients will collect their medications at these clubs.

PLWH who were on ART and other chronic conditions like hypertension, diabetes mellitus and asthma experienced pill burden due to other medications which they had to take. This affected adherence to IPT negatively as some participants were not convinced of taking IPT as they were asymptomatic. A combination pill was proposed by PLWH in order to reduce pill burden and improve adherence.

Some of the PLWH were initiated on IPT without being given the knowledge on its benefits, side effects, adverse side effects as well as its duration. In such instances, patients followed instructions and took IPT.

Counselling of PLWH is necessary before initiating IPT. The information given must contain IPT, its benefits, side effects, adverse side effects as well as its duration. This knowledge could assist PLWH to improve adherence, continuity of care and good retention in HIV care.

The most common side effects which were experienced by PLWH were headache, mild rash, dizziness and fatigue. Even though the side effects occurred, PLWH continued taking IPT as they had been educated about the side effects. Furthermore, side effects were mild and adherence to IPT was not affected as patients continued with the prescribed dosage.

Adverse side effects like hypersensitivity rash, vomiting and mental confusion were experienced by some of the participants. Even though participants reported those effects, they were never attended to and PLWH who experienced them decided to stop IPT on their own.

Strengthening the DOTS strategy was one of the strategies proposed by PLWH. Through this strategy, each person who is on IPT can be supported at home, at the workplace or at the clinic by DOTS supporters. This is likely to promote adherence and continuity to IPT as well as retention in HIV care.

Strengthening TB screening at each visit is necessary to ensure that PLWH cannot develop active tuberculosis and end up dying as tuberculosis is a leading cause of morbidity and mortality among PLWH. Excluding active tuberculosis early could also lead to early treatment which would save lives of PLWH and promote their survival.

Prevention of stigma and discrimination is necessary in the promotion of adherence, continuity of care and linkage to HIV care. Stigma prevents PLWH from utilising health care services and this leads to poor adherence.

Chronic adherence clubs need to be established in order to reduce long queues and long waiting time. Through social clubs, PLWH would be supported and they might end up disclosing their positive HIV status to peer members.

PLWH and professional nurses must conduct awareness campaigns on a continuous basis to ensure that patients become aware of services rendered at clinics including provision of IPT. Through this, more people are likely to continue taking IPT leading to improved adherence.

Accepting one's status is crucial. Individuals who accept their positive HIV status are receptive to health care messages and information leading to improved adherence.

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Annexure A: Ethical clearance certificate

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT

Private Bag X6001, Potchefstroom,
South Africa, 2520

Tel: (018) 299-4900
Faks: (018) 299-4910
Web: http://www.nwu.ac.za

Institutional Research Ethics Regulatory Committee
Tel: +27 18 299 4849
Email : Ethics@nwu.ac.za

ETHICS APPROVAL CERTIFICATE OF PROJECT

Based on approval by the **Health Science Ethics Committee (FAST-HSEC) on 07/09/2017** after being reviewed at the meeting held on **07/09/2017**, the North-West University Institutional Research Ethics Regulatory Committee (NWU-IRERC) hereby **approves** your project as indicated below. This implies that the NWU-IRERC grants its permission that, provided the special conditions specified below are met and pending any other authorisation that may be necessary, the project may be initiated, using the ethics number below.

Project title: Lived experiences of people living with HIV regarding isoniazid preventive therapy provision in Ngaka Modiri Molema district
Project Leader/Supervisor: Dr L Makhado
Student: Selehelo K

Ethics number: N W U - 0 0 6 6 7 - 1 7 - A 9
(Institution – Project Number – Year – Status)

Status: S = Submission; R = Re-Submission; P = Provisional Authorisation; A = Authorisation

Application Type: Single Study
Commencement date: 2017-09-07 **Expiry date**: 2020-09-07 **Risk:** Minimal

Special conditions of the approval (if applicable):

- Translation of the informed consent document to the languages applicable to the study participants should be submitted to the HSEC (if applicable).
- Any research at governmental or private institutions, permission must still be obtained from relevant authorities and provided to the HSEC. Ethics approval is required BEFORE approval can be obtained from these authorities.

General conditions:

While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, please note the following:

- *The project leader (principle investigator) must report in the prescribed format to the NWU-IRERC via HSEC:*
  - *annually (or as otherwise requested) on the progress of the project, and upon completion of the project*
  - *without any delay in case of any adverse event (or any matter that interrupts sound ethical principles) during the course of the project.*
  - *Annually a number of projects may be randomly selected for an external audit.*
- *The approval applies strictly to the protocol as stipulated in the application form. Would any changes to the protocol be deemed necessary during the course of the project, the project leader must apply for approval of these changes at the HSEC. Would there be deviated from the project protocol without the necessary approval of such changes, the ethics approval is immediately and automatically forfeited.*
- *The date of approval indicates the first date that the project may be started. Would the project have to continue after the expiry date, a new application must be made to the NWU-IRERC via HSEC and new approval received before or on the expiry date.*
- *In the interest of ethical responsibility the NWU-IRERC and HSEC retains the right to:*
  - *request access to any information or data at any time during the course or after completion of the project;*
  - *to ask further questions, seek additional information, require further modification or monitor the conduct of your research or the informed consent process.*
  - *withdraw or postpone approval if:*
    - *any unethical principles or practices of the project are revealed or suspected,*
    - *it becomes apparent that any relevant information was withheld from the HSEC or that information has been false or misrepresented,*
    - *the required annual report and reporting of adverse events was not done timely and accurately,*
    - *new institutional rules, national legislation or international conventions deem it necessary.*
- *HSEC can be contacted for further information via Lesetja.Motadi@nwu.ac.za or 018 289 2598.*

The IRERC would like to remain at your service as scientist and researcher, and wishes you well with your project. Please do not hesitate to contact the IRERC or HSEC for any further enquiries or requests for assistance.

Yours sincerely

Prof LA Du Plessis
Digitally signed by Prof LA Du Plessis
Date: 2017.10.12 08:56:59 +02'00'

Prof Linda du Plessis
Chair NWU Institutional Research Ethics Regulatory Committee (IRERC)

Annexure B: Permission to Conduct Research

REQUEST FOR PERMISSION TO CONDUCT RESEARCH (NORTH WEST DEPARTMENT OF HEALTH)

ENQUIRIES: K.S. SELEHELO (Mrs)
Tel: 053 927 1230
Cell: 083 632 6110
Director for Policy, Planning, Research, Monitoring and Evaluation
Department of Health
North West Province
Private Bag x 2068

MMABATHO

2745

2017. 08. 01

Dear Sir/ Madam

REQUEST FOR PERMISSION TO CONDUCT RESEARCH

I am a registered Master's student with the University of the North West Province, Mafikeng campus in the School of Nursing. My project will be conducted under the supervision of Prof. L Makhado.

My research topic is: experiences of people living with HIV regarding Isoniazid preventive therapy provision in Ngaka Modiri Molema. The purpose of the study is to identify, explore and describe the experiences of PLWHV regarding IPT provision and uptake at a community centre in Mafikeng.

I hereby request permission to conduct research at unit 9 health centre in the North West Province Mafikeng.

I have attached a copy of my research proposal.

Should you require any further information, my contact details are as follows:

- Keamogetse Sylvia Selehelo- 083 632 6110 (mobile) or 053 927 1230 (work).

- Research supervisor: Prof L Makhado at 084 5526260

On completion of the study, I undertake to provide the department with a copy of the research report

Yours sincerely Date----------

Keamogetse Sylvia Selehelo

Annexure C: Informed consent

INFORMED CONSENT FORM

(NORTH WEST UNIVERSITY- MAFIKENG CAMPUS)

Title of Project: Experiences of people living with HIV regarding Isoniazid Preventive Therapy provision in Unit 9 Health centre Mafikeng

Project head: Prof Lufuno Makhado

Researcher: Ms Keamogetse Selehelo

I, the undersigned _____ (full names and surname), volunteer to be a participant in a study on experiences of people living with HIV regarding Isoniazid Preventive Therapy provision In Unit 9 health centre Mafikeng conducted by the researcher:

- I understand that I will be engaged in an individual interview lasting for 30 to 60 minutes in a venue of choice to protect my right to privacy.
- I understand that a tape recorder will be used during the interview and I have consented to that.
- I am free to discontinue my participation at any time should the need arise. The information given up to the point of termination could be used by the researcher.
- I understand that this consent form, voice records and any other material that may contain my identity or any clues thereof will be kept safe and accessed only by the researcher and the supervisor to protect my right to anonymity.
- I will not receive any kind of payment for participating in this study

Signature of participant _____ Date _____

Signature of researcher _____ Date _____

Signature of study leader _____ Date _____

Annexure D: Transcript

INTERVIEW NO 4

Researcher: Good morning madam. My name is Keamogetse Selehelo. I am a third year master's student at the North West University, Mafikeng campus under the supervision of Professor Makhado. My research topic is lived experiences of PLWH regarding IPT provision in Ngaka Modiri Molema. Thank you for agreeing to take part in my study. Please feel free to share your IPT experiences with me.

R: Can we start?

P: Yes

R: Tell me your experiences regarding IPT provision

P: INH is offered at the clinic to all people living with HIV in order to prevent them from getting tuberculosis. It has been given to me and I am collecting it every month at the clinic

R: When you attend the clinic for collection of IPT is it available

P: Yes mam, it is always available at the clinic. Whenever I attend the clinic, the professional nurses offer it to me

R: Ok I get your point

R: As a person who is on IPT what experiences do you have regarding it?

P: It is very helpful because since I have started using it my immune system has improved.

R: How do you mean by improved immune system?

P: Before being initiated on IPT I had cough but since I started IPT, the cough was suppressed and till today the cough is gone and thanks to IPT. I have never felt so healthy before

R: Do you think that IPT is the one making you healthy?

P: Of course, this pill is very helpful to me

P: Can you please explain how it had been helpful to you

P: It is helpful because it will help me not to get tuberculosis. I am a care giver and DOTS supporter who supports TB patients with their medications daily at their homes. Thanks to IPT I think it has offered me protection against tuberculosis and I am grateful as I do not have symptoms of tuberculosis

Silence maintained

R: Besides IPT being useful and offering TB protection, do you have any other experiences

P: Yes lots of experiences

R: Do you mind sharing the IPT experiences with me?

P: No

R: Please explain further

P: Three days after starting IPT I started to have feelings of tiredness, headache and dizziness

R: What actions did you take when you experienced those problems?

P: I did not do anything as I was informed by professional nurses when they started me on IPT that I could have side effects like headache, dizziness and fatigue. So when I had them I did not worry as I was informed that the side effects are brief

R: For how long did the side effects last?

P: They were brief for 1 week only

R: Did you continue taking IPT despite having side effects?

P: Yes

R: What motivated you to continue taking IPT even though you were having side effects?

P: Its benefits are great

P: Explain further please

R: It has helped me a lot. I am doing home visits on a daily basis. Some of the people I visit have been diagnosed with TB, others are not yet diagnosed but they are having clinical features as they are coughing, have lost weight, have loss of appetite but they do not want to go to the clinic for screening. I think if I was not getting IPT I would be having TB by now but I am just fine. Every person living with HIV should be given IPT as majority of PLWH die due to tuberculosis

R: Do you mean IPT prevents you from getting tuberculosis

P: Yes mam

R: What strategies can be put in place to encourage PLWH to take INH?

P: Awareness campaign where people are taught about the importance of taking IPT. As PLWH we need to be educated about INH, its importance, side effects and ways

of dealing with side effects. Furthermore, as PLWH we can go to churches as well as schools to educate school children about HIV and TB as well as IPT provision.

R: At the clinic is there anything that can be done to encourage people to take IPT?

P: Educate everybody about INH and those that have been given INH relatives must make sure that an individual takes INH?

R: Anything you want to share further?

P: There is a high TB rate, people are offered INH, but it seems others are not getting it

R: Explain further please

P: My suspicions are that not all PLWH get IPT. If all PLWH were getting it the TB rate would have dropped by now. I usually watch television and listen to news on the radio. Tuberculosis is very problematic in PLWH

R: Your suspicion is that not all PLWH are offered IPT?

P: Yes mam you heard me well

R: What can be done to ensure that all PLWH who qualify for IPT are offered

P: They should be asked at every visit whether they are on the pill. If they are not on the pill they should be started immediately if they do not have features of TB. As care givers and relatives we need to monitor whether PLWH are taking IPT and counselling should be done before one is given the drug

R: Are there any other strategies you can think of to promote IPT

P: Families, friends, neighbours as well as care givers must be involved in encouraging PLWH to take their IPT as prescribed. This will assist PLWH not to default their IPT.

Dot supporters just like in TB should be used and PLWH need to disclose their status to their immediate relatives for support purposes. People need to be encouraged to use reminders and they should not deny their status

R: What do you mean by denial of status?

P: Denial means that one does not believe that she/ he is having HIV or she/ he believes that nurses are lying when they are saying he/ she has HIV or one believes she/ he has been bewitched. The main reason for one to deny the status is because she/ he does not want other people to know she/ he is HIV positive

R. Any concluding remarks

P: I am happy about what the department is doing to us. It is giving us IPT so that we cannot get tuberculosis. It really shows that the department of health cares and loves us as PLWH. I really want to thank them for their efforts

R: Thank you for sharing your IPT experiences with me. Good bye.

Annexure E: Editing and Proofreading Certificate

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
MAFIKENG CAMPUS

Private Bag X2046, Mmabatho
South Africa, 2735

Tel: +2718 389-2451
Cell: 0729116600
Web: http://www.nwu.ac.za

School of Teacher Education and Training
Tel: +2718 389 2451
Cell: 0729116600
Email: 22055215@nwu.ac.za

4th December, 2017

TO WHOM IT MAY CONCERN

CERTIFICATE OF LANGUAGE EDITING

I, Muchativugwa Liberty Hove, confirm and certify that I have read and edited the entire thesis **Lived experiences of people living with HIV with respect to Isoniazid Preventive Therapy provision in Mafikeng PHC facilities** by **Keamogetse Sylvia Selehelo, student number 121 827 37**, submitted in fulfilment of the requirements of **Master of Nursing Science** to the Department of Nursing, Faculty of Agriculture, Science and Technology, **North-West University (Mafikeng Campus)**.

Keamogetse Sylvia was supervised by **Professor Lufuno Makhado** of the North-West University. I hold a PhD in English Language and Literature in English and am qualified to edit academic work of such nature for cohesion and coherence.

The views and research procedures detailed and expressed in the thesis remain those of the researcher/s.

Yours sincerely

Dr M.L.Hove

Original details: Dr M.L.Hove (22055215) C:\Users\22055215\Desktop\CERTIFICATE OF EDITING.docm
4th Decembe, 2017
File reference: Dr M.L.Hove

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