EXPLORING THE EFFECTS OF ALCOHOL USE ON ANTIRETROVIRAL THERAPY ADHERENCE AMONGST ANTIRETROVIRAL PATIENTS AT KHOTSONG, A RURAL CLINIC IN LESOTHO

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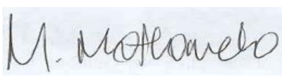
A research report submitted to the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the Degree of Master of Public Health.

Date 15th April 2019

DECLARATION

I declare that this research report is my own work. It is submitted for the degree of Masters in Public Health (Rural Health) to the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this University or any other University.

'Masetsibi Motlomelo



On the 15th April 2019

DEDICATION

This work is dedicated to my late mother for her continuous support through this journey. It is a pity that she did not have the opportunity to see the final product.

ABSTRACT

Introduction

The Antiretroviral Therapy (ART) has a positive influence on longevity in patients with HIV, extensively reducing morbidity and mortality. However, the success of anti-retroviral therapy (ART) depends on access to treatment, being some of the challenges facing people on ART. A number of factors infuencing anti-retroviral therapy, including alcohol have been reported. The aim of the study was to explore the factors that influence antiretroviral therapy amongst ART patients at the Khotsong, a rural clinic in Lesotho.

Method

This study was premised on the principles of the qualitative research, coupled with an exploratory research design. For the purpose of the study, a purposive sampling technique was used to select the study participants. As such, adopting an interview guide, in-depth interviews were conducted involving twelve ART patients in 2015-2016.

Results

The findings of the study show several factors influencing the ART, including significant alcohol consumption, motives for alcohol use, food insecurity meant for easing medication, forgetfulness, late arrival at home and deliberate avoidance of medication amongst the patients.

Conclusion

The findings of the study show alcohol consumption amongst ART patients, the habit which tends to affect ART adherence. Even though alcohol consumption is noted amongst the patients, decrease in quantity and frequency of consumption is observed once the patients enroll for ART, thus indicating the effectiveness of information provided. Therefore, there is a need for improved treatment literacy and integration of alcohol-focused interventions geared towards ART patients.

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ACRONYMS

AIDS – Acquired Immune Deficiency Syndrome

ART- Antiretroviral therapy

COSC -Cambridge Overseas School Certificate

HAART- Highly Active Antiretroviral Therapy

HCT- HIV counselling and testing

HCW- Health Care workers

HREC- Human Research Ethics Committee

JC- Junior Certificate

UNAIDS- Joint-United Nations Programme on HIV/AIDS

WHO- World Health Organisation

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CHAPTER ONE

AN OVERVIEW OF THE STUDY

1.0 Introduction

Chapter one is the overview of the whole study. The chapter sets out with the background to the study and statement of the problem, the research question as well as specific objectives of the study. The chapter also presents justification for and briefly reviews the literature related to this particular study. The chapter then concludes with the structure, hence outlining the scope of this study as reflected in each chapter. As such, these very aspects are discussed in turn in the following sections of the chapter.

1.1 Background to the study

The introduction of ART has led to improvements in immunological and virological outcomes, quality of life and longevity amongst individuals living with HIV, thus decreasing morbidity and mortality (Hendershot *et al.,* 2009). As such, anti-retroviral therapy (ART) has had a positive influence on longevity in patients based in resource-limited settings amongst others by extensively reducing morbidity and mortality amongst patients living with HIV (Neuman *et al.,* 2012). However, the success of such therapy depends on access and adherence to the treatment programme, necessary for viral suppression, prevention of resistance and disease progression and for preventing death, the aspect which remained challenging to people receiving ART (Nakimuli-Mpungu *et al.*, 2012). However, such challenges as travelling without adequate medication, financial constraints, food insecurity and alcohol use have been reported to have a negative effects on ART adherence (Axelsson *et al.,* 2015; Jaquet *et al.,* 2010; Mayanja *et al.,* 2013a; Musheke *et al.,* 2012; Shubber *et al.,* 2016). The WHO shows that heavy alcohol consumption is harmful to health, with approximately 4.5 per-cent of the global population being exposed to diseases, injuries as well as HIV scourge because of heavy alcohol use in Sub-Saharan Africa (Hendershot *et al.,* 2009; Mills *et al.*, 2006a,2006b;WHO,2014).

Equally significant are studies which reported an estimate of 330,000 people living with HIV in Lesotho, thus making the country the second highest HIV-infected country the world over. With the annual HIV- incidence rate being at 1.47 per cent, the country has been reported to have about 25.6 per cent of the population aged 15-49 years being infected (LDHS, 2014; National Institute of Statistics, Directorate General for Health 2015b). Of these numbers, about 9,900 died from AIDS-related illnesses in 2016 (UNAIDS, 2017), despite reports on the decline in new HIV incidence from 30,000 new infections in 2005 to 21,000 new infections in 2016 (UNAIDS, 2017). According to the Lesotho Population-based HIV Assessment (LePHIA, 2016), 53 per cent of HIV-infected people are receiving ART and 66 per cent are virally suppressed (UNAIDS, 2017).

Since the 2016 launching of the “Test-and-Treat” policy in line with the WHO guidelines, Lesotho like any other countries has been committed to combating HIV/AIDS. According to the WHO guidelines, every person that tests HIV-positive should be afforded HIV treatment regardless of their CD4 Count (Ministry of Health, 2016). The government’s commitment to fighting HIV has also been motivated by and strives towards the UNAIDS targets, thus enhancing HIV-testing, enrolment on treatment and viral suppression by 2020, the strategy which is dubbed as 90-90-90 (UNAIDS, 2017). With this strategy, the government has embarked on a number of innovative, integrated and decentralised HIV-care programmes. These, therefore, include early diagnosis and monitoring of HIV-positive pregnant and lactating women and their infants, thus providing health facilities, with free, safe and robust treatment for the marginalised people, most of whom are based in the remote areas of the country (Ministry of Health 2014).

1.2 Statement of the problem

Studies have reported common substance use and abuse amongst HIV positive individuals, with nearly 50 percent of persons living with HIV/AIDS reporting current or past histories of drug or alcohol use, which is associated with poor health behaviour and non-adherence (Durvasula & Miller, 2014; Mills *et al*., 2006). Similarly, studies conducted in Lesotho have observed alcohol use as one of the possible factors influencing the ART (Axelsson *et al.,* 2015; Cerutti *et al.,* 2016). The 2003 reports from two rehabilitation centres, one psychiatric clinic, mental observation and treatment units and the police department in Lesotho found alcohol as a dominant substance of abuse amongst the patients in the treatment facilities (WHO,2004, LENDU 2004). For instance, 70 per cent of patients treated in rehabilitation centres identified alcohol as their primary substance of abuse during that period (WHO, 2004, LENDU 2004). With the apparently observed HIV prevalence and HIV incidence rate coupled with alcohol consumption amongst the general population, it is crucial to understand the phenomenon in relation to ART in Lesotho (LDHS, 2014). While the Kingdom of Lesotho has achieved significant developments in adopting the ART, the effects if any as well as the extent of the afore-stated challenges for the ART amongst the HIV-positive patients remains to be established.

1.3 Research question

What are the factors that influence the antiretroviral therapy amongst the HIV-positive patients at the Khotsong ART Clinic in Lesotho?

1.4 The Aim of the study

The aim of the study is to explore the factors which influence the antiretroviral therapy amongst the HiV-positive patients at the Khotsong ART Clinic in Lesotho

1.5 Specific objectives

(a) To find out about the level/pattern of the antiretroviral therapy amongst the HIV positive patients at the Khotsong ART Clinic in Lesotho in 2015.

(b) To explore the factors which influence the antiretroviral therapy amongst the HIV-positive patients at Khotsong a rural ART clinic in Lesotho in 2015.

(c) To explore the extent of such influence on the antiretroviral therapy amongst HIV-positive patients at the Khotsong ART Clinic in Lesotho in 2015.

1.6 Justification for the study

This study, like any other studies, is anticipated to benefit different sections of society in a number of ways. As such, the study, amongst others, would result in better understanding of the effects of alcohol consumption on ART adherence on the part of the researcher and other interest groups. For example, the findings of study would hopefully influence or help to improve the ART service delivery including integration of alcohol use, screening and management at various health centres as well as the clinic used as a research site (for the fieldwork) for this study. The study would further inform alcohol-focused ART programmes and adherence interventions, hence contributing to the existing knowledge base of the phenomenon under study. As such, while the findings of this particular study are not necessarily generalisable, they will probably serve as a point of departure for further studies for more nuanced aspects of the phenomenon under study, thereby enhancing some interventions contributing to the antiretroviral therapy and its implementation.

1.7 Literature review

1.7.1 Global ART adherence status

A number of people receiving antiretroviral therapy (ART) have since 2005 increased in many regions of the world except for Eastern Europe, Central Asia, the Middle East and North Africa (UNAIDS, 2013). In low- and middle-income countries 20.9 million people living with HIV were receiving ART, 53 per cent of whom had access to ART in 2016 (UNAIDS, 2017). Reducing the virus circulating within a setting or population, scaling up antiretroviral therapy has helped to reduce the number of new HIV infections (UNAIDS, 2017). For instance, since the peak year 2005, AIDS-related deaths have reportedly decreased by 48 per cent worldwide (UNAIDS, 2016) thereby making HIV a manageable chronic disease (Okoronkwo *et al.,* 2013). These strides are attributed to some strategies proven effective in accelerating ART, one of which is bringing services closer to people living with HIV through decentralisation (UNAIDS, 2013).

The concept of adherence has been defined by the World Health Organisation (WHO) as the extent to which a person’s behaviour of taking medication as prescribed, following a diet and or executing lifestyle changes, corresponds with agreed recommendations from a health-care provider (WHO, 2003). However, enrolling for and adhering to the treatment has been found challenging amongst the people living with HIV as a result of the several barriers associated with taking ART(Mills *et al.,* 2006b). It is further indicated that people who are on treatment after long-term illness have experienced some problems such as treatment fatigue, more especially if such treatment is not intensified nor adhered to effectively (WHO, 2003).

1.7.2 Factors contributing to ART

Many studies have identified factors that influence ART in different parts of the world. According to the studies, the facilitators of adherence to ART are categorised into patient-related and structural facilitators. First, patient-related facilitators encompass factors such as belief in treatment, seeing positive results, disclosure and being involved in treatment decision-making. Second, structural facilitators to ART adherence include having a good relationship with the service provider, social support reliance on various mechanisms that serve as reminders such as: watch, phone alarm and alternative methods such as the position of the sun. All these facilitators have been proven to be effective in enabling ART adherence (Bezabhe *et al.,* 2014; Croome *et al.,* 2017; Curioso *et al.,* 2010; Hodgson *et al., 2*014; Mayanja *et al.*, 2013a; Mills *et al.,* 2006b; Musheke *et al.,* 2012; Nozaki *et al.,* 2011; Shubber *et al.,* 2016; Tsega *et al.,* 2015; Weiser *et al.,* 2003). Moreover, education and counselling facilitate ART adherence. This phenomenon was noted by the study conducted in Kenya, showing women's education level as positively associated with ART adherence. In this view, the higher the level of education, the better the level of ART adherence (Hodgson *et al.,* 2014).

1.7.3 Other related barriers to ART adherence

With research further reporting on challenges facing patients on ART, studies conducted in Africa have noted such factors as forgetfulness, financial constraints, stigma and discrimination, and fear of disclosure, being away from home, long distances to the clinic, stock outs as barriers to ART amongst patients. Similarly, in Peru reports pointed out resource-limited settings as reinforcing facilitators of and challenges facing patients on ART. Mayanja's (2013) study in Uganda showed HIV-positive people's worries about disclosure of status, lack of food prior to ART initiation as affecting adherence and delayed initiation of ART or discontinuing ART. According to the reports, some of the medication needs to be taken with food (Axelsson *et al*., 2015; Bezabhe *et al*., 2014; Croome *et al*., 2017; Curioso *et al., 2010;* Hodgson *et al.*, 2014; Jaquet *et al*., 2010; Koole *et a*l., 2016; Musheke *et al*., 2012; Nokazi *et a*l., 2011; Mayanja *et al*., 2013a; Potchoo *et al.,* 2010; Shubber *et a*l., 2016; Tabatabai *et al.,* 2014; Weiser *et al.*, 2003; 2010).

Equally significant is lack of food security and hunger that affects day-to-day medication intake Berhe *et al. (*2013) amongst the patients. Studies have thus shown these as a barrier to ART adherence particularly in several African countries. It has been observed that HIV-positive people with a lack of food are more likely not to take their medication or are less adherent to their treatment than their counterparts who are food-secured (Berhe *et al.,*2013; Kalichman *et al*., 2014; Koole *et al*.,2016; Sanjobo *et al.*, 2008). In Uganda and Zambia, studies showed that inability to get enough quality food and the consumption pattern of less than three meals a day was associated with poor adherence as medication was delayed or missed while patients tried to acquire food to enable ART (Berhe *et al.,* 2013, Sanjobo *et al.*, 2008). In some cases, after accepting their HIV-status, people have resorted to using traditional medicines thereby reinforcing the aspect of non-ART adherence (Croome *et al*., 2017, Groh *et al*., 2011).

Similarly, lack of HIV knowledge has been associated with poor adherence or non-adherence to ART, with the study conducted in Togo noting that the majority of females who participated in the study were non-adherent and had lower levels of HIV-related knowledge (Potchoo *et al*., 2010). Furthermore, it is stated that high levels of adherence are achieved in the first six months of treatment, as participants conform to adherence instructions. However, relaxation is observed over time (Mbonye *et al.*, 2013; Sasaki *et al*., 2012).

1.7.4 Alcohol use amongst ART patients

1.7.4.1 Motives for alcohol use

Studies conducted globally showed the detrimental effects of alcohol on ART adherence and that HIV positive patients taking alcohol were less likely to be adherent compared to non-drinkers (Hendershot *et al.*, 2010; Neuman *et al*. 2012). Alcohol consumption amongst HIV individuals is shown to be motivated by different factors. Participants declared alcohol as a stress reliever, making them forget their problems (Sundararajan *et al.,* 2015). Similarly, Elliot (2014) shows that alcohol consumption in ART patients is motivated by the desire to cope with negative affect, as social facilitator and as response to social pressure and to cover up their low self-esteem (Cook *et al*., 2016; Elliott *et a*l., 2014a, 2014b; Sundararajan *et al*., 2015). As Badala *et al.* (2008) put it, alcohol consumption is motivated by the desire to cope with negative affect (*e.g.* sadness, boredom and irritability), and the need to facilitate social situations, and to respond to social pressures (Badalà *et al.,* 2008). Other studies have also shown alcohol consumption for the purpose of coping with stress, enhance positive mood, attenuate negative emotions, obtain social rewards and avoid social rejection (Cook *et al*., 2016; Elliott *et al.*, 2014a, 2014b, Sundararajan *et al.*, 2015). A study conducted in Uganda that assessed changes in alcohol use among ART patients showed that alcohol consumption reinforces social relationships and facilitates social inclusion and enhances bonding. The study further showed that participants indicated that alcohol was central to their social gatherings, which increased access to drinking.

Alcohol toxicity beliefs have been shown to affect adherence. Studies conducted in the United States noted that patients sometimes intentionally missed medication because of their toxicity beliefs as in mixing alcohol and ART (Kalichman *et al*., 2012, 2015). Studies have shown that the impact of toxicity beliefs in adherence is not only on the days of alcohol consumption, but also in non-drinking days (Pellowski *et al*., 2016). As such, alcohol and HIV medication should not be mixed to avoid any lapse of ART on drinking days. Avoiding such a mix would offset beliefs that one should stop taking ART while drinking (Pellowski *et al*., 2016). It is further indicated that high alcohol consumption tends to be tantamount to ART non-adherence, probably attributable to intoxication and forgetfulness (Parsons *et al.*, 2008).

A study by Cook to assess the perceived benefits and negative consequences of alcohol consumption in women living with HIV in Chicago, has revealed that alcohol consumption was mainly for psychological, biological and social reasons (Cook *et al*., 2016). Participants consumed alcohol as a result of addiction, to manage pain, as a coping mechanism, to enhance self-esteem and to socialise (Badalà *et al.,* 2008; Cook *et al.,* 2016). Many women reported drinking for social reasons, such as being in the company of someone drinking, having fun, or being in places where people were drinking. Other women reported drinking in order to feel control over their surroundings, and several noted it made them feel more confident or courageous. Moreover, alcohol was used as a type of self-management of their mood, to cope with stress or life issues. Still other women recounted their drinking history as having started from an early age as in adolescence due to family exposure or peer influences (Cook *et al*., 2016; Sundararajan *et al.*, 2015).

In the context of Sub-Saharan Africa, research indicated has highlighted that HIV-positive patients taking alcohol may delay seeking or initiating ART services due to misperceptions that alcohol abstinence is a prerequisite for ART enrolment (Nakimuli-Mpungu *et al*., 2012). In South Africa, a study showed that constructions of masculinity that promote alcohol use and self-reliance may also indirectly hinder or delay men's visits to health centres for treatment and uptake of ART services (Nkosi *et al*., 2016). Similarly, Sileo (2016) in a prospective cohort study conducted in South Africa, assessing the role of alcohol use in antiretroviral adherence, found that when participants drank they were at an increased likelihood of missing ARVS. For instance, participants who used alcohol on a particular day were three times likely to miss ARVs that day than their counterparts who abstained from alcohol use (Sileo *et al*., 2016).

1.7.4.2 Patterns of alcohol use

With alcohol consumption appearing to be influencing adherence to ART Hendershot *et al.* (2009), studies have further reported its prevalence amongst HIV-positive individuals, thus restricting ART adherence. For Hendershot *et a*l., (2009), about 50 per cent of HIV-positive individuals have been found to have a history of drug or alcohol use, which is associated with poor health behaviour and non-adherence (Durvasula & Miller, 2014; Mills *et al*., 2006). The study conducted in South Africa assessed the correlation between alcohol and ART adherence, and found that alcohol use was associated with ART adherence over the demographic, structural and psychosocial factors (Kekwaletswe & Morojele, 2014). In Lesotho, it has been observed that alcohol use amongst ART patients is more prevalent amongst men than women (Axelsson *et al*., 2015; Cerutti *et al*., 2016).

Equally noticeable is the study by Sundararajan and associates (2015) focused on HIV-infected persons enrolled for care and treatment for the purpose of changing alcohol use over time. The study observed some changes signified by reduction and cessation of alcohol intake amongst patients as a result of advice against alcohol consumption from the clinician. The behaviour was also motivated by a perceived fear of interfering with ART efficacy and that of interfering with their social obligation. Abstinence has been reported as not easily attained as patients were caught between listening to HCW's advice and drinking due to social pressures (Sundararajan *et al*., 2015). Similarly, the study conducted on self-reported alcohol abstinence associated with ART reported on patients' reduction and abstinence from alcohol consumption immediately after ART initiation (Santos *et al*., 2014). This indicated participants' positive response to alcohol-focused interventions, thus resulting in a decrease in alcohol consumption in terms of quantity and frequency (Santos *et al*., 2014; Wandera *et al*., 2015; Sundararajan *et al*., 2015). However, this phenomenon remains unknown in the context of the Kingdom of Lesotho. Therefore, there is a need to explore the factors which influence the antiretroviral therapy amongst the HIV-positive patients at the Khotsong ART Clinic in Lesotho.

1.8 The Structure of the study

Chapter One has presented an overview of the study, thus outlining the background to the study; statement of the problem; research question and specific objectives as well as justification for and related literature to the study. Chapter Two presents the research design and methodology as well as ethical consideration of the study. Chapter Three concerns findings of the study. Chapter Four discusses and interprets the findings as presented in the preceding chapter. Finally, Chapter Five presents the conclusions, limitations and recommendations of the study.

CHAPTER TWO

THE RESEARCH DESIGN AND METHODOLOGY

2.0 Introduction

This chapter presents the overall research plan for obtaining the answers to the research question and objectives of the study. The chapter, thus, presents the study design, setting, population, sampling techniques, data management, data analysis and ethical considerations.

2.1 Research design

This study is based on the principles of the qualitative approach through, amongst others, an exploratory research design. As a paradigm on which the study is premised, the qualitative approach is basically concerned with textual or verbal data in the form of words, phrases, sentences and any other communicative signs reflective of a certain phenomenon under study. As such, the qualitative design often allows researchers an opportunity to explore details related to the experiences and perceptions of participants about any phenomenon under study in any or different sociocultural contexts. Consistent with the qualitative design are interviews and other related research methods.

2.2 Research setting

The study was conducted at the Khotsong ART Clinic, which forms part of the integrated out-patient Department of the Seboche Hospital. As the hospital is a referral hospital located in Butha Buthe district in the jurisdiction of the Likila Community Council with an estimated population of 119 105 (the Country Profile Report, 2017). The district health system is made of two hospitals, one a government hospital, and the other a Christian Health Association of Lesotho Hospital (a referral and district hospital) as well as 10 health centres in the district .The clinic currently serves about 3000 ART patients and offers the following free ART services: HIV-testing and counselling, HIV/TB integrated services, ART initiation, refills and continuous adherence support. These services have been offered since 2005 when ART became available at the hospitals. The clinic also offers services to its catchment population based in Butha Buthe district and neighbouring districts namely, Mokhotlong and Leribe.

2.3 Study population and sample

The study population comprised male and female alcohol consumers who fit the inclusion criteria of 18 years and above, more especially those who had been on ART for more than one year. The age of the participants' ranged from 39 to 65 years all of whom attended ART services at the Khotsong ART clinic, few kilometers from the Seboche Hospital. The researcher approached the nurse in charge at the ART clinic with the information sheet and explained the objective of the study. The ART nurse identified 18 patients known to consume alcohol from a large ART group. The selection of the patients was based on the personal knowledge of the patients' alcohol consumption by the nurse and the village health workers. Since information was not documented in the patient's files, alcohol screening did not form part of the ART services. The researcher then approached and introduced herself to the patients in a group thus giving them the purpose of the study. Only twelve ART patients volunteered to participate in the study based on the inclusion criteria of age, duration on ART and alcohol use while others did not participate. The reasons for the decline was that they had sent friends to collect their medication and also that they did not feel comfortable to be interviewed about alcohol consumption, more especially when they were continuously discouraged from consuming alcohol.

2.4 Data Collection

2.4.1 In-depth Interview

Interviews were conducted as a tool selected for data collection in the study. Interviews generally allow flexibility on the part of both researcher and participants, thereby enabling flow of communication between them. As an instrument, interviews could be organised into open-ended and closed-ended questions, for the purpose of collecting different forms and levels of data. Open-ended questions normally give participants freedom to not only to settle for the interview, but also to express their opinions when responding to questions on the one hand. On the other hand, closed-ended questions (questionnaires) tend to restrict participants' responses, thus channeling them into a certain way. At any rate, interviews provide an opportunity to collect both verbal and non-verbal data, paralinguistic features such as facial expressions and other vocal cues all of which feature responses to different questions asked the subjects about the phenomenon under study. Overall, such communicative aspects could hardly be picked up with the use of questionnaires. It is against this backdrop that the researcher adopted the interviews as a tool for data collection for this study.

2.4.2 Interview Guide

A semi-structured interview guide was used as a basis for data collection in order to address the research question and achieve specific objectives of the study. The guide had first been piloted with four participants to simulate the interviews to assess if the tool would be understood or to modify it if necessary. Following the pilot study, changes were made to improve the guide and the interviewer ensured that the logistical issues such as privacy and confidentiality of the participants were considered before, during and after the interviews. The patients who participated in the pilot were selected from the study population, and were, however, excluded from the final study. The interviews were tape-recorded, using an audio recorder and transcribed verbatim and coupled with the written field notes taken during the interview process. The field notes therefore not only collected verbal data but they also allowed the researcher to note some paralinguistic aspects as in facial expressions and other body language all of which served to complement the verbal narratives of the participants during the interviews (see Annex F).

On this basis, one-on-one interviews were conducted with the ART patients in the study so as to gather the perceptions of the participants about ART. These semi-structured interviews, meant to gather in-depth information from the participants, had been designed to allow the researcher to reject any preconceived opinions about the effects of alcohol use on antiretroviral adherence, while at the same time striving towards maintaining objectivity. The researcher conducted the interviews using an interview guide that begins with the participants' demographic information and to avoid repeated travels to the clinic the interviews were combined with the patients' refill days. (See Annex G). Each interview lasted for 30-60 minutes depending on the responses by participants.

2.5 Data analysis

The grounded theory has informed this study in terms of data analysis processes. While often the case with the qualitative design, data collection and analysis occurred simultaneously for this particular study. The recorded responses to the interviews were transcribed verbatim, and translated from Sesotho into English by the researcher herself the transcriptions were then de-identified and tagged in such a way as to have the participants' names substituted for with certain codes for ensuring confidentiality and anonymity. Furthermore, the transcripts were exported onto MAXQDA 12 Software (30 days trial version) for data analysis. Afterwards, the researcher familiarised herself with the data, through listening to the recorder and reading the transcripts and the field notes in order to examine any recurrent themes, ideas, trends and comparisons noted from the data. In the same way, the coding process followed an inductive approach whereby codes emerged from the texts, which in this case, were not predetermined by any theory. The transcripts were closely examined, with the codes and themes verified by the supervisor as a way to ensure validity and reliability.

2.6 Ethics

The Human Research Ethics Committee (HREC) (medical) of the University of Witwatersrand in South Africa granted ethics approval for the study (clearance no M1502030) (see Annex B). The Ethics committee from the Ministry of Health in Lesotho also granted permission for the study (see annex C). Participation in the study was voluntary and free with the participants being informed of the objectives of the study through an information sheet provided (see Annex D). Participants were thus informed that they had a right to participate in and withdraw from the study at any time without facing any negative consequences including services being and/or to be provided to them. Only participants who provided an informed consent (see annex E) were invited to participate. The participants were also assured that their responses would be remain confidential and anonymous once consenting to participate in the study and the data would be available only to the researcher and be filed and stored safely in a lockable cabinet for up to two years, after which the information would be destroyed. Following their informed consent, I, therefore, conducted interviews as noted above.

CHAPTER THREE

FINDINGS

3.0 Introduction

This chapter presents the findings of the study. Drawing on the qualitative nature of the study, the findings into the perceptions, understanding and experiences of the HIV-positive patients on ART during the fieldwork of the study (2015-2016). The findings are, therefore, presented with a focus on the themes, trends and comparisons. The findings are further presented in the form of frequency counts which are incorporated into different sections of the main text for ease of comparative purposes as noted above.

3.1 Participant's demography

The researcher interviewed twelve participants, eight men and four women, who volunteered to participate in the study. Their ages ranged from 39–62 years. They came from different villages in the catchment area of the Seboche Hospital. Eight participants were married while three were widowed and one was separated. At the time of the study all the participants were unemployed. However, three of the men had previously been employed on the South African mines. One was of them had formerly been an industrial worker in South Africa and the other as a contractor, with the rest of the men engaged as farmers, especially cattle herders. On the other hand, the women were unemployed, though some were engaged in subsistence farming, growing vegetables to support their families. The women also reported to have never had permanent jobs, except for piece jobs such as road maintenance in the surrounding villages from which they had been earning food.

The participant's educational status varied from complete illiteracy to secondary education. Two participants had completed Forms B and C, which are secondary school grades as in the education system of Lesotho. These are grades equivalent to Grades 7 and 8 in the current South African education system (African, n.d.). However, four participants studied as far as Standard 6 which is the primary level in Lesotho while the rest had not gone to school at all. In what follows are the factors contributing to the antiretroviral therapy.

3.2 Factors influencing antiretroviral therapy

3.2.1 Duration on ART

The participants interviewed had been on ART from 1-8 years, some of them were not aware of the duration of their treatment. For example, only three males could recall the duration of the ART, while the rest of the participants, both males and females could not recall when they had started taking ARVs, despite the fact that their health booklets had the required information. It was noted that the participants could not remember any details of their ART initiation since they did not regularly check their health booklets.

> *"Hmm! I have not checked my health booklet for the years during which I have started using ARVs, but I am certain it is documented in my health booklet. I cannot remember the exact year; yet, I am sure two years have passed" (Male, 58 years).*

3.2.2 Information on ART

All twelve participants (100%) admitted that information on ART was communicated to them through adherence sessions during the drug-refill days. It was thus observed that they were informed of the correct dosages of the ARVs, as well as of the prescribed time for taking medication. In cases where taking medication was delayed, they relied on their own judgment, whether to take or skip it.

> *"They (nurses) say the drugs should be taken at the same time all the time; however, when one has forgotten and remembers, one should take the drugs. What I do is if I had delayed taking my drugs I usually adjust the time meaning I set another time" (Male, 54 years).*

Similarly, 12 participants, hence (100%) of the respondents reported being told to abstain from alcohol consumption, because it affected ART adherence at the clinic; alcohol consumption has been found to be interrupting the effectiveness of ART.

“They advise us to take medication properly, thus discouraging us from taking any alcohol as it disturbs the way the ARVs are supposed to work. Nor should we drink lest we forget taking medication” (Female, 62 years).

However, while other participants acknowledged being given some information, three participants (25%) have considered information provided during the adherence and counselling sessions to be redundant and overwhelming. They have further admitted being unable to absorb such information, thereby forgetting part of it after sometime.

“They (nurses and counsellors) say alcohol affects the effectiveness of ARVs. They tell us so many things and we sometimes do not understand and even what they tell us” (Female 54 years).

“Hey! We are told so many things, but my mind cannot absorb all the information provided. The information becomes too much but we listen” (Male 59 years).

Equally significant is the finding that despite being discouraged from using traditional medicine, four participants (33%) reported their use of traditional medicine before knowing about their HIV status. One male participant, in particular stated that he stopped using traditional medicine after being dissuaded at the clinic.

Hmm! I used to use traditional medicine every day before I knew my HIV status and the nurse asked me what medicines I was using. I told her (nurse) that I’m using traditional medicine. She told me to stop now that I’m starting ARVs I have to stop because ARVs and traditional medicine do not mix” (Male 47 years).

3.2.3 Reminders or enablers to ART

In response to the question on reminders to ART, all twelve participants (100%) reported that they each had things and or people who reminded them about taking medication at the prescribed or consistent times. For instance, they reported watches, cell phone alarms, the radio, their partners and children to mention just a few.

“I always have my phone and if it happens that it is off because we sometimes have a challenge of where we charge the phones as we do not have electricity I

have a radio that I listen to, I listen to radio programs and that's where I get the time. In situations where I travel from home I always make sure that the phone is charged to sustain me days while away from home" (*Male, 58 years*).

3.2.4 ART Support

The study found that both the family members and village health workers have provided support to the participants. As such, all twelve participants (100%) attested to getting support involving their proper medication intake since they started treatment**.**

"My Village Health Worker supports me very much. She is my treatment supporter. She has always been there since I started treatment. She always comes to my house to ensure that I have taken my pills" (Male 57 years).

Besides, all the twelve participants (100%) reported having reduced visits to the clinic because of being provided with a three-month supply of medication, which enabled them to take medication properly.

"I do not come to the clinic every month to get my pills anymore, I'm now given three months' supply. I can only come before my appointment when I do not feel well. I'm able to do my things instead of being at the clinic every month" (Male 39 years).

However, lack of support from immediate family members has been reported as a barrier to ART. Three participants (25%) talked about being stigmatised and abused by partners, resulting in their interrupted schedules for taking medication. They reported that they would leave their homes to avoid being with their abusive partners. Being away from home has reportedly allowed them to avoid any confrontation and domestic violence by their spouses, the habit and behaviour which have affected their medication routine.

"Since I discovered my HIV status my wife has always been abusive asking me where I got the virus. She does not support me in anyway, sometimes she refuses with food and it hurts. So to avoid the confrontations and stress I'm mostly away

from home and I only come back at night and sometimes Im late for taking my medication or completely miss it" (Male 58 years).

Similarly, one female participant reported her husband's mockery of her HIV status as follows:

"My husband detests me and always says bad things to me, he says I have a dreadful disease" (Female 52 years).

3.2.5 Missing ART due to absence from home

Being away from home at the time for taking medication was reported as a barrier to taking medication. For example, six participants (50%) considered this to be affecting adherence by delaying and making them miss a medication time. The participants also indicated their awareness that medication should be taken at the same time daily so as to avoid any complications.

"It is only once when I had gone to the cattle post hoping to go back but when I got there I found the cattle had fled and the weather changed, there was mist which blocked the way I had travelled with a horse. So, I had to sleep over and go back the following day and I took them that evening and I did not feel good about missing them. That is the only time I missed the medication other than that I have not missed them" (Male 58 years).

3.2.6 Inadequate medical supply: Pills

Similarly, when travelling away, some participants, hence four (33%) participants reported carrying inadequate pills and sometimes experiencing problems of running out of medication in cases of having to stay on their trip longer.

"*When I visited my children in South Africa I carried my pills however they were not enough to sustain me until I come back home and I ran out of medication, I visited the nearest health facility and was assisted "(Female 62 years).*

One participant showed stressful events as a barrier to taking medication. Cases of bereavement as in losing one of the family members has been noted as a barrier to ART adherence since medication would be poorly administered. The following illustrates:

> *"I missed the pills this past month when my son passed away. I missed them three or four times. I do not know what happened to me, I really do not understand. I think I thought hard because I was thinking how I was going to bury my son when I am not working" (Male 57 years).*

3.2.7 Food insecurity vs home-made brew

Also noticeable has been shortage of food in some families, hence a barrier to ART adherence. About eight (67%) of the participants admitted having been advised to take medication irrespective of whether or not meals have been taken. The participants stated ARVs as appetising, thereby making one desire to eat very frequently. However, the participants showed that when medication is taken without food, it causes discomfort or pains in the stomach. For them, this condition has been so unbearable they would rather miss medication or delay taking it, if it were to be taken without food.

> *"You find that sometimes there is no food in the house because I'm unemployed. So, because we are told to eat before we take medication I sometimes delay taking the pills as I have to go to the neighbors' to ask for food. "Hey these pills make us hungry and if you take them on an empty stomach they make you sick" (Male 52 years).*

3.2.8 Disclosure

Twelve participants (100%) disclosed their HIV status to the immediate family members, including spouses, children and village health workers for facilitating proper medication as treatment support, as advised at the clinic.

> *"I have told only my children, husband and Maatisetso (village health worker) who is also my neighbour but I have not told my friends because I am afraid they will*

gossip about me and I do not want to be talk of the village. They only assume that I am HIV positive because I come to hospital every month; so, they do not really know why" (Female 54 years).

Non-disclosure of HIV status to the community or the general public has, however, been reported by eight participants, which is 67% of the sample population. Medication was taken at home, not in public places with the patients trying to avoid any curiosity of the public, lest they could discriminate against and stigmatise them.

"I don't carry my pills to the drinking place because the people that I drink with don't know my HIV status. People here at the village gossip. If they see me take the pills they will talk about me so I take them at home and sometimes it is late" (Male 57 years).

3.2.9 Alcohol consumption

3.2.9.1 Types of alcohol consumed

Participants have been found to be consuming traditional home brew and commercially brewed beer. Of all other sampled participants, ten participants 83%, have reportedly preferred traditional brew as it is easily accessible with less costs and in some instances free in the villages. Nevertheless, consumption of commercially brewed beer has been found to be afforded by only two participants (16%) since it is mainly reserved for special community events.

"I use commercially brewed beer but because I cannot afford to buy beer, I drink traditional beer as it is easily accessible" (Male 58 years).

3.2.9.2 Places and context for alcohol consumption

Traditional brew was considered to be at the centre of all community events (funeral, weddings, and celebrations). In Sesotho culture, alcohol forms part of the food prepared in ceremonies. Therefore, participants felt compelled to consume alcohol as it was viewed as unacceptable to decline the offer.

"Yes. I take sorghum traditional brew. Sometimes it can be when we are attending funerals and celebrations or when someone has made traditional brew at their own home" (Female 51 Years).

Four (33%) women reported that it was at these community events that it is socially acceptable for women to drink. Even though alcohol consumption for women is acceptable during community events, they do not often share a drink or beer with men, even if it is the same type. Women drink with other women at their own private space, be it indoors or outside in the yard, albeit being part of the occasion.

"Yes we women do drink during community occasions. We sit at our corner or under a tree we don't mix with men. We are always singing and we tend to drink a lot and go home very late" (Female 54 Years).

Traditional brew has also been found at brewing houses in the villages. It has been found that 10 participants, more especially (83%) of the men, spent their time drinking at these venues. Women, on the other hand, buy away their drink, for drinking from their households and or they would go to the drinking places which involve only women at the time. It is not common practice to find them (women) at the brewing houses mixed with men. Women who are found at the brewing houses are considered to be irresponsible and are prejudiced by the community.

"*We do not drink from the brewing houses we buy and go home to drink. Hmm! If you can spent time there you will be talk of the village and called names" (Woman 58 years).*

Likewise, men have been noted to be uncomfortable with sharing a drink with women, since even engaging in any conversations with them usually ends up being problematic. One male showed that where men and women drink together, there usually are fights, and that men feel disrespected by the women.

"Ahh! We never drink with women because we end up fighting with these women. They are so loud and disrespectful when drunk. Also we (men) end up fighting

among ourselves over these women so it is better we are alone discussing men issues" (Male 59 Years).

Four women indicated that other than these places, drinking has become common and accessible from anywhere for these women.

"We drank at lunch last week; while at Fatofato, some women brought it, and we drank while having our meals" (Female 52 Years).

Commercially brewed beer, on the other hand, was not easily accessible. It was largely consumed at local bars, while men are watching soccer, or during festive seasons when friends are home from the mines.

"My friends from the mines were at home so they bought beer and we drank and enjoyed ourselves however I left early so to attend to the cattle and be home on time for medication" (Male 57 years).

3.2.9.3 Frequency and quantity of alcohol consumption

Depending on the type of alcohol, its availability and financial status of individuals, the quantity of alcohol consumed varied. Male participants who took traditional brew reportedly consumed one to four *babatones* (1000ml utensil used) at a time, albeit claiming not to drink daily. Instead, they claimed to drink at least three times a week (7 days).

"I do not drink always because I am not working and sometimes I do not have money for buying. I sometimes get money if someone at the village had provided a piece job so that allows me to be able to buy traditional beer. The last time I drank was when we went for collection of wood for the funeral and because they had brewed traditional beer we drank it and also during the day of the funeral we also drank. Those were the times that I drank alcohol" (Male 57 years).

Four women (33%) reported taking one babatone (1000ml utensil) when drinking, at least one to three times a week. Quantifying consumed alcohol was found to be impractical as it was shared amongst friends. Some participants, more especially the unemployed and irregular drunkards, reported drinking when attending funerals and other community events only at weekends.

However, eight participants that is (67%) admitted having significantly reduced alcohol consumption because of treatment and guidance on ART offered by health educators at the health facilities.

> *"Hmmm! These days I take 1000 ml babatone when I drink and I become so drunk with only that babatone. Hmmm! I don't drink the way I used to. I have reduced drastically because we have been told to stop drinking at the clinic" (Male 54 years).*

3.2.9.4 Coping mechanisms

As noted above, alcohol has been taken for purposes of coping with stress-ridden conditions. Three participants indicated taking alcohol to avoid stress caused by their partners. As a result, they preferred the company of friends at drinking venues.

> *"Just like sometimes I get annoyed at home because of the relationship with my wife is not good, being with other people drinking helps a lot because it is always fun and I would completely forget my troubles " (Male 58 Years).*

For eight participants (67%), alcohol consumption is attributed to unemployment; they indicate that idling has led them to spend time at drinking houses to avoid boredom. According to them, traditional brew has been easily and freely available even from their drinking companions.

> *"I have realised that because I am unemployed I drink to avoid boredom because I spend days doing nothing. If I had a job, I do not think I would be drinking as I would have something keeping me busy" (Male 58 years).*

All the participants (100%) believe that medication should be taken irrespective of whether one has had a meal. Seven of them (58%) saw the ARVs as appetising and making people eat more frequently. They indicated that when medication is taken on an empty stomach, patients would experience discomfort and unbearable pains. Since traditional brew is made up of sorghum and believed to fill up the stomach just like a normal meal, patients take it as a replacing meal which they would, otherwise, not have on a regular basis. In other words, for them, taking medication along with or after drinking is better than taking it on an empty stomach.

> *"You find that due to problems you find yourself at home doing nothing and being worried because of the problems I am faced with. The ARVs require someone who has food, they make you sick if you take them on an empty stomach. So, I go drinking when there is no food at home because traditional beer fills you up"* (Male 58 years).

> *"It is hunger because one sometimes realise there is nothing to eat and when we go drinking we get full" (Male 54 years).*

> *"If only the hospital can give us food like when you have TB it would be better because we would be able to take our pills without fail "(Male 57 years).*

3.2.9.5 Social factors

Different reasons have been given for consuming alcohol by the participants. For example, desire to cope with stressful events, lack of support, denial of the HIV positive status, boredom and social reasons such as being with friends socialising, discussing community activities, and attending social functions such as funerals and wedding ceremonies have been found as motivating alcohol consumption. Both men and women participants thus reported drinking for social reasons probably because of peer group pressure, thus drinking and having fun with friends. 67% participants further saw alcohol as facilitating interpersonal communication amongst people, allowing relaxation and relieving them of any boredom.

> *"I can say it is pleasing friends because being alone at home you get bored and decide to be with other people but end up drinking, also spending time idling or spending the whole day sleeping is a problem. I take it mainly because of boredom especially when I have not taken the cattle for grazing and honestly there are no other things that keep me busy besides looking after cattle " (Male 47 Years).*

Four participants (33%) have explained that drinking places are not perceived as solely for drinking and socialising purposes. Rather, such places are resourceful, allowing partakers to discuss and share ideas on village issues. One male participant noted drinking places as information sources even about piece job opportunities.

> *"Sometimes while there drinking, you hear things like one of the villagers is looking for people to assist in harvesting potatoes and I always jump at those opportunities knowing that you will get potatoes for the family. Therefore, even if going for drinking is not encouraged, that is where beneficial and important information is shared by other community members " (Male 54 years).*

3.2.9.6 The Effects of alcohol on ART adherence

Participants admitted that alcohol and medication should not be taken concurrently, more especially because drinking participants tended to miss out medication. One female pointed out that on many occasions when arriving back home drunk, she would go to bed having forgotten to take medication. Otherwise, she would delay taking her medication, else awake the following morning having forgotten whether she had taken medication.

> *"I think I am not taking my medication well due to alcohol use. I sometimes forget to take my drugs and in the mornings wonder if I did and my children would tell me I have. This is an indication alcohol affects my memory"(Female 52 years).*

> *"Drinking places are fun, we sing and chat a lot. When we are there we forget about things and drink. Sometimes, when I arrive home I sometimes go straight to bed without taking my treatment" (Male 59 years).*

> *"It has happened and it is due to going drinking with other women. This is because when I am drunk I tend to forget due to the fun and the games that would be played there. I sometimes delay coming home and when I arrive home I go straight to bed without taking the pills" (Female 58 years).*

Medication would be delayed while participants were from the drinking places. About 50% of the participants pointed out that they consciously decided to skip medication when the time for medication had lapsed; this follows the advice by the health-care workers that medication should be taken at the same time. The participants would, therefore, miss medication, arguing that it is an unacceptable habit to take medication after specified regular time. Otherwise, they would reschedule medication intake, the habit which is tantamount to non-adherence.

> *"You find that when I have delayed taking my medication, by the time I take it that will be the time that I then follow to take the pills" (Male 57 years).*

The other reason mentioned for missing medication was that participants were reluctant to take their medication in public drinking places, fearing to be stigmatised and discriminated against. As such, (83%) of the participants reportedly feared to disclose their HIV status, even to their drinking companions, lest their companions and other people would develop a negative attitude towards them.

> *"Hmm! People that I drink with don't know my HIV status and I won't tell them because the moment they know I will be the talk of the village. They will also think I will infect them and they would not be comfortable to share their drink with me. It is because they do not have the correct information. So, I will continue to take my medication secretly to protect myself"(Male 59 years).*

About (50%) of the participants stated that alcohol consumption and other household responsibilities affect their ARV therapy. A typical example is an occasional irrational and violent behaviour, suddenly resulting from misunderstandings between them and other drinking peers as shown below:

> *"It does because one gets drunk and would not use them [medications] well. One forgets because of being drunk. You sometimes find that you are told you fought and you do not even remember. That's the thing that makes me say alcohol does affect the use of ARVs" (Male 57 years).*

However, two (16%) of the participants reported that they often arrive at home early in order to take medication; otherwise, they would even remind themselves if away from home. They further admitted having been taking alcohol long before discovering their HIV status and starting ARVs. For them, taking medication had never been a problem, but they admitted being faced with a challenge of refraining from alcohol consumption after such a long-term habit. The following extract illustrates:

> "*No because I do not drink all the time and I still take the drugs as prescribed. The only difficult thing to do is stop drinking completely. I do not do bad things like fight when I have taken alcohol and I have not missed the drugs due to taking alcohol. I think it is difficult to stop as I started taking alcohol many years since" (Male 52 years).*

CHAPTER FOUR

DISCUSSION

4.0 Introduction

This chapter discusses the findings of the study. Specifically, the chapter summarises the responses of the research question, interprets, and thus comments on them. The chapter also examines the findings in relation to the literature reviewed in this study. In the next sections, the aspects around which the questions were centred are presented in turn as shown below.

4.1 The Patterns of alcohol use amongst ART patients

The study found that the majority of participants were above 50 years of age and consumed alcohol frequently while with others it was moderately. The frequency of alcohol (traditional beer) consumption was influenced by alcohol being readily available and central to all community events (funerals, weddings, celebrations and at brewing houses). As noted in the literature, alcohol consumption is common amongst patients on ART (Durvasula & Miller, 2014; Hendershot *et al.*, 2009; Mills *et al*., 2006). On the other hand, commercially brewed beer was consumed occasionally because of unaffordable costs and its accessibility to the jobless participants or once-off workers in the rural areas as all (Siegfried *et al*., 2001). With alcohol being available at the ceremonial events, the participants have also been found to be drinking as a way of avoiding to be considered asocial by the villagers if they were to decline traditional brew offered to them on such occasions. There is consonant with studies which showed alcohol as central to the community events, where almost every member would be expected to drink along with others as part of the village etiquette. As some researchers put it, participants saw drinking as facilitating social inclusion (Cook *et al*., 2016; Sundararajan *et al,.* 2015).

While the ART patients have been found to be using alcohol in this study, significant reduction in alcohol intake upon ART initiation due to medical advice has been reported. The patients have been warned against alcohol use since it affects adherence and effectiveness of ART. This finding showed consistency with studies which reported reduced alcohol intake amongst the patients upon enrolling for care and treatment (Hahn *et al*., 2014; Santos *et al.,* 2014; Sundararajan *et al.,* 2015). The change has been reportedly influenced by awareness campaigns or education from the counselling sessions, ART initiation and/or alcohol-focused interventions by medical personnel at the clinic. However, other participants have indicated the challenges they faced when having to refrain from alcohol consumption. This finding suggest the degree of alcohol consumption, hence addiction, amongst some patients had. Otherwise, they probably found themselves on a dilemma of either refraining from alcohol as advised by HCW's or continuing with it (Cook *et al*., 2015).

This reduction could also be explained through the health belief model which states that a behavioural change is influenced by the individual's perceived susceptibility, perceived severity and the perceived benefits in taking an action to reduce the risk. Moreover, this could be a self-imposed ability to effect changes so as to achieve desired goals amid any obstacles (Abraham & Sheeran, 2015). In this study, it has been found that the participants reported decreased alcohol intake, the behavioural changes which could be explained in terms of awareness that high alcohol intake is detrimental to their health as a result of which they would have decided to reduce their drinking habit. In addition, patients could perceive, as important for adhering to medication, the advice from the health workers. They would possibly feel healthy, and thus desire to live well and longer for their families who may have influenced their behaviour from alcohol consumption.

4.2 Motives for alcohol consumption

This study has found the participants consuming alcohol at drinking venues so as to cope with lack of support from their partners. Similarly, patients find alcohol to be a stress reliever and makes them forget their problems; hence, they prefer to be at drinking venues as a way to deal with their problems. The finding is consonant with reports by other studies focused on ART patients, thus revealing alcohol consumption as social relief from social pressure (Cook *et al*., 2016; Elliot *et al*., 2014; Sundararajan *et al*., 2015). Drinking alcohol to cope with the negative affect has been associated with predictable heavy drinking and alcohol dependence (Elliot *et al*., 2014).

The other finding was that female participants drank alcohol to boost their mood and make themselves courageous to enjoy allow conversations and socialising with others. at the same time, this finding concurs with the findings by Cook (2015) which showed women's use of alcohol to enhance their social interactions, mood and self-esteem (Cook *et al*., 2015, 2016; Elliot *et al*., 2014; Sundararajan *et al.*, 2015). Even though being at the drinking venues may be perceived as facilitating alcohol consumption, other participants indicated that drinking venues serve as sources of about piece job opportunities as in crop harvesting for the villagers. This could also mean that drinking places are venues for communities to assemble for discussing important community issues.

For the people with lack of or limited food stuff, alcohol consumption has been found to make up for food insecurity. For example, 58% of the participants reported consuming alcohol as a substitute for lack of food, claiming home-brew beer serves much like staple food stuff due its ingredients and that it facilitates medication intake. Therefore, to avoid missing medication participants drink traditional brew, also indicating that ART enhances appetite and if it is taken on an empty stomach makes one to experience unbearable hunger and pain. Studies on food insecurity have shown that lack of food and hunger affects day-to-day adherence, and that patients who are food insecure are more likely not to adhere to medication than their counterparts (Kalichman *et al.*, 2014). It has also been noted that ART initiation may be delayed or discontinued due to fear of food insecurity as the medication should be taken with food (Mayanja *et al*., 2013; Musumari *et al*., 2013; Weiser *et al*., 2010).

4.3 ART adherence

The findings of the study have shown that participants miss treatment two to three times in a week due to intoxication and forgetfulness while coming from drinking venues. It has further been found that once patients delay taking medication they decide to skip or miss medication despite being advised to stick to it. According to them, no information is provided about what to do if they delay or skip medication altogether. Instead, patients are just advised to always take medication at the same time. The decision to miss medication could be influenced by vague information given by health workers; findings do not show clearly whether and to what extent health workers sensitise patients to the detrimental effects of alcohol on patients who are on ART. It is possible that standardised information provided that does not address individual needs of the patients. As such, the participants only reported being advised not to take alcohol while being on ART.

They, however, claimed not to have been given reasons for having to abstain from alcohol. These findings are, therefore, consistent with some previous studies which showed alcohol consumption as affecting cognitive ability (Hendershot *et al*., 2009; Kalichman *et al*., 2015; Parsons *et al*., 2008). Dewing *et al.'s* (2015) study of predictors of non-adherence has shown that lack of adherence-related information is common amongst all participants; however, the association was not significant to poor adherence (Dewing *et al*., 2015). Similarly, studies have revealed that information alone does not change behaviour. Instead, patients should better understand the value of treatment and consequences of any non-adherence (Dewing *et al*., 2015; Kalichman *et al.,* 2014).

CHAPTER FIVE

CONCLUSIONS

5.0 Introduction

The preceding two chapters have looked at both the findings and discussions of the findings, with the latter also making some sub-conclusions of this study. Most importantly, setting out with both the overarching research problem and specific objectives, this study has made some findings from which to draw conclusions as is shown below. In the first place, the research problem of this study was to explore the factors which influence the antiretroviral therapy amongst the HIV-positive patients at the Khotsong ART Clinic in Lesotho. In order to address the research problem, the study specifically set out to find out about the pattern of the antiretroviral therapy amongst the HIV positive patients at the Khotsong ART Clinic in Lesotho in 2015; to explore the factors which influence the antiretroviral therapy amongst the HIV-positive patients on at Khotsong a rural ART clinic in Lesotho in 2015; and to explore the extent of such influence on the antiretroviral therapy amongst HIV-positive patients at the Khotsong ART Clinic in Lesotho in 2015.

5.1 Summary of the main findings

As stated in the findings, this study has discovered a number of factors contributing to the antiretroviral therapy amongst HIV-positive patients at the Khotsong ART Clinic in Lesotho. In general the, study has found the significant use of alcohol consumption and motives for alcohol use, amongst ART patients at the Khotsong clinic. Of particular significance is the recurrent finding of alcohol consumption reported to be motivated by the need for patients to fit into the community, to cope with their adversities and as substituting home-made brew for scarce food or food insecurity in the households. All these, according to the participants, help to enable treatment intake, albeit their being unconscious of non-adherence to ART. It has been found that medication is missed through forgetfulness, delayed medication intake and conscious decision to skip medication with fear of interactive toxicity belief while patients are drinking. Finally, also noticeable have such factors as social integration, late home-coming and time lapse, inadequate medication, support as well as urge for using traditional medication instead of recommended therapy on the part of the patients, all of which lead to non-adherence to the therapy. Even though, alcohol consumption has been found to be common amongst the patients, decreased quantity and frequency of consumption has been observed, more especially after patients have enrolled for ART. This change is probably indicative of awareness campaigns and adherence to the therapy, per sei.

5.2 Limitations of the Study

While the study would ideally strive towards addressing all the questions under investigation, this, like any other study, has had some limitations. One of the limitations of this study is the small sample, totaling only to 12 participants, who volunteered to participate in the study: eight men and four women as noted above. As a result, the data collected, (hence from gender-imbalanced sample), could be interpreted more from the male perspective than from the female perspective. Besides, with the data having been collected only from the unemployed patients, it could arguably be interesting to understand the phenomenon, also from the views and perceptions of the employed patients. Considering the sensitivity of the topic, the participants might have responded in such a way as making them comfortable, while at the same time not necessarily being honest about some of their responses. With the data gathered only from the patients' perspective, hence self-reporting through narratives, it is also possible that alcohol use and ART adherence has been under-reported. Finally, a validated screening instrument for alcohol use such as the Alcohol Use Disorders Identification Test was not administered in this study.

5.3 Recommendations

Despite decreased quantity and frequency of consumption observed amongst the patients, following enrollment for ART, the degree of awareness campaigns carried out may not be determined. Therefore, there is a need for intensifying treatment and literacy programmes to address patients' needs. Alcohol-focused information should be explicit enough about the detrimental effects of alcohol on ART adherence, thereby enabling all the parties, concerned to make informed decisions for treatment. Close attention should be focused on integrating alcohol services into ART preparation, initiation and follow-ups. This integration would help the medical personnel to identify alcohol-consuming patients and their motives for alcohol consumption so as to be able to develop appropriate strategic and specific alcohol-focused interventions.

5.4 Suggestions for further research

While the findings of this study are so illuminating about ART patients, interviewed from this particular research site, they are not necessarily generalisable to other contexts that is, other parts of the country and elsewhere. It is, therefore, suggested that there should be further studies, perhaps, to replicate and/or further research this phenomenon so as to explore it more comprehensively, with a larger sample. Such studies, we hope, would not only help to further illuminate the phenomenon, but it would also establish any trends and/or new dimensions of the ART and ART adherence, in particular, on the basis of which appropriate interventions, be they, nutrition-livelihoods projects would be initiated and implemented.

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Annexures

Annex A: Plagiarism Declaration Report

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

FACULTY OF HEALTH SCIENCES

PLAGIARISM DECLARATION TO BE SIGNED BY ALL HIGHER DEGREE STUDENTS

SENATE PLAGIARISM POLICY: APPENDIX ONE

I MASETSI BI (Student number: 741286) am a student registered for the degree of MPH (RURAL) in the academic year 2013

I hereby declare the following:

- I am aware that plagiarism (the use of someone else's work without their permission and/or without acknowledging the original source) is wrong.
- I confirm that the work submitted for assessment for the above degree is my own unaided work except where I have explicitly indicated otherwise.
- I have followed the required conventions in referencing the thoughts and ideas of others.
- I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief that this is not my own unaided work or that I have failed to acknowledge the source of the ideas or words in my writing.

Signature: M. Mothomelo Date: 29/03/2018

26/04/2015
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Annex B: Wits Ethics Clearance

R14/49 Ms Masetsibi Motlomelo

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

CLEARANCE CERTIFICATE NO. M150203

NAME: (Principal Investigator)	Ms Masetsibi Motlomelo
DEPARTMENT:	Family Medicine Seboche Hospital Kotsong ART Clinic Butha Buthe District, Lesotho
PROJECT TITLE:	Exploring the Effects of Alcohol Use on Antiretroviral Therapy Adherence among Patients at Khotsong, A Rural Clinic in Lesotho
DATE CONSIDERED:	27/02/2015
DECISION:	Approved unconditionally
CONDITIONS:	
SUPERVISOR:	Abigail Dreyer
APPROVED BY:	Professor P Cleaton-Jones, Chairperson, HREC (Medical)
DATE OF APPROVAL:	27/07/2015

This clearance certificate is valid for 5 years from date of approval. Extension may be applied for.

DECLARATION OF INVESTIGATORS

To be completed in duplicate and **ONE COPY** returned to the Secretary in Room 10004, 10th floor, Senate House, University.
I/we fully understand the conditions under which I am/we are authorized to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated, from the research protocol as approved, I/we undertake to resubmit the application to the Committee. **I agree to submit a yearly progress report**.

Principal Investigator Signature ______________ Date ______________

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

Annex C: Authorization Letter Ministry of Health Lesotho

LESOTHO

Ministry of Health
PO Box 514
Maseru 100

24th June 2015

Masetsibi Motlomelo
Student # 741286
University of Witwaterand
Johannesberg, RSA

Dear Masetsibi,

Re: Exploring the perceived effects of Alcohol Use on ART adherence among patients at Khotsong, a rural clinic in Lesotho (ID46-2015)

Thank you for resubmitting the above mentioned proposal. The Ministry of Health, Research and Ethics Committee having reviewed the protocol hereby authorize you to conduct the study among the specified populations. The study is authorized with the understanding that the protocol will be followed as stated. Departure from the stipulated protocol will constitute a breach of the permission.

We are looking forward to have final reports at the end of this study.

Sincerely,

Dr. Nyane Letsie
Director General Health Services

Dr. Amelia Ranotsi
Chairperson
National Health Institutional Review Board (NH-IRB)

Annex D: Participants Information Sheet

Study title: The effects of alcohol Use on Antiretroviral therapy adherence among patients at Khotsong, a rural clinic in Lesotho.

Good morning/ good afternoon

My name is MasetsibiMotlomelo. I am athird year student completing a Master's degree in Public health at the University of the Witwatersrand. I am conducting research to explore the effects of alcohol use on antiretroviral adherence among patients on antiretroviral therapy at Khotsong ART clinic in Lesotho.

You are kindly invited to participate in this research which is a qualitative study. Should you agree to participate in the study, you will be required to participate in an interview that will last 30-60 minutes. The consent that you will provide will enable the interviewer to ask you questions on alcohol use to which you will be requested to provide honest answers. Your answers will be confidential and audio recorded on a digital recorder. You do not have to answer questions that you feel not comfortable to answer and the interview can be stopped any time you do not want to continue. However, your participation and honest answers will assist us to understand the effects of alcohol use on antiretroviral adherence.

Risks:

The interview will be conducted in a private room at Khotsong ART clinic however potential risks may be:

You may feel uncomfortable answering some questions that may be addressing some sensitive and personal issues about your life.

You will spend 30- 60 minutes of your time during the interview which you could have allocated to other activities.

Benefits:

The information collected from the study will be used to influence development of programmes for alcohol and adherence interventions targeted towards patients on HAART.

Participation in the research is voluntary. Refusal to participate will involve no consequences.

Confidentiality:

All the information collected in the study will be confidential. The consent form will be kept safely and separate from the transcriptions which will not contain any of your details.

Contact details of researcher:

In the event that you require further information or for complaints regarding the research you may ask the researcher to clarify or contact the supervisor for this study, Abigail Dreyer from the department of Family Medicine, Centre for Rural Health at the University of Witwatersrand on office number (011) 7172438.

Annex E: Participant Consent Form

I --- agree to participate in the study. I understand the following information provided to me by the researcher.

The aim of the study.

The information that I will provide will be used only for the purposes of this study.

I can refuse to answer certain questions and withdraw from the interview without consequences.

All information in the study will be kept confidential and I will not be identified by name.

For further questions participants can contact Abigail Dreyer the research supervisor on this number 011 7172438.

Participant's name___________________________________

Participant signature/Thumb print__________________

Date________________

Name of researcher: ________________________________

Researcher' signature:________________________

Date________________

Annex F: Audio-recording consent form

I____ consent that I am fully aware that the researcher will be using audio- recording for the interview. She has explained the aim of the study, the risks, benefits and my rights as a participant in the study.

Participant's name ____

Participant's signature_______________________________________

Date_____________________

Researcher's name:

Researcher's signature ____

Date___________________

Annex G: Interview Guide

Age _______

Male / Female______________

Educational status_______________________

Employment status_______________________

Urban or rural setting___________________________

Can you explain your use of ARVs?

How long have you been on ART?

Who have you disclosed your HIV status and use of ARVs to?

In what circumstances have you ever forgotten to take the ARVs?

How often have you forgotten to take the ARVs?

What were the reasons you missed the ARVs?

What are the things that make taking ARVs easy and those that make it difficult?

Can you tell me more about your alcohol consumption?

Do you take alcohol?

How often do you take alcohol?

How much alcohol do you consume?

Where do you go for drinking alcohol?

What are the reasons you consume alcohol?

What do health care workers advice on the use of alcohol and ARVs?

In what ways can you be supported to use ARVs well?