College of Medicine

An Exploration of the Relationship between Herbal Medicine Use and Anti Retro Viral Therapy Adherence among People Living with HIV in Blantyre, Malawi.

By

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CERTIFICATE OF APPROVAL

The Dissertation of Thokozani Noniwa is approved by the Dissertation Examination Committee

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DECLARATION

I, Thokozani Noniwa, hereby declare that this dissertation is my original work and has not been presented for any other awards at the University of Malawi or any other University.

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ABSTRACT

Introduction: Antiretroviral Therapy(ART) adherence is defined as being able to consistently take 95% of the prescribed Antiretroviral(ARV) drugs by an HIV infected person. According to the World Health Organisation(WHO), most people living with HIV and AIDS in Africa use also herbal medicines to treat opportunistic infections and obtain symptomatic relief.

Objectives: The main objective of this research was to explore potential relationship between use of herbal medicine and Antiretroviral Therapy adherence among People Living with HIV. Specifically, the study was designed to determine use of herbal medicine among People Living with HIV, establish patterns of herbal medicine use, explore potential interruption to ART medication due to herbal medicine use and determine associated factors for herbal medicine use among People Living with HIV.

Methodology: The study adopted the phenomenological study design. Data was collected through individual in-depth interviews. Purposive sampling was used to select study participants. Data analysis was done using thematic content analysis. This analysis was done guided by the study objectives to generate emerging themes.

Results: Three main themes emerged from the data. The themes framed through the lens of HIV and AIDS care included: (1) patients' perspectives on ART medication, (2) herbal medicine use in relation to HIV infection and ART adherence, and (3) perceived quality of medical care. Subthemes were discussed under each of the main themes.

Conclusion: This study has shown that herbal medicines are widely being used by People Living with HIV and this consequently interrupts their adherence to Antiretroviral Therapy. Some of the People Living with HIV use the herbal medicines separately from ARVs while some use them concomitantly with ARVs. Inadequacies in the health system delivery have also shown to promote use of herbal medicine among People Living with HIV. This has largely affected ART adherence as some of them default ART around the time that they switch to herbal medicine.

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ABBREVIATIONS AND ACRONYMS

AIDS:	Acquired Immune-deficiency Syndrome
ART:	Antiretroviral Therapy
ARV:	Antiretroviral
COMREC:	College of Medicine Research and Ethics Committee
HIV:	Human Immunodeficiency Virus
IDI:	In-Depth Interview
MPH:	Master of Public Health
MPHIA:	Malawi Population-based HIV Impact Assessment
PLHIV:	People Living with HIV
UNAIDS:	United Nations joint program on HIV and AIDS
WHO:	World Health Organisation

GLOSSARY OF TERMS

TERM	MEANING
Concoction:	a mixture of various ingredients or elements
Concomitantly:	at the same time/ simultaneously/ alongside
Intermittent:	occurring at intervals, not continuous or steady
Potential interruption:	ability to influence/affect
Quack remedies:	Fraudulent or ignorant pretender to medical skill
Separate use:	using apart or used individually by itself

CHAPTER 1

1.0 INTRODUCTION AND OBJECTIVES OF THE STUDY

1.1 Background

The World Health Organisation defines herbal medicine as plant derived material or preparations with therapeutic or other human health benefits, which contain either raw or processed ingredients from one or more plants and 'in some traditions, material of inorganic or animal origin may also be present'[1]. Herbal medicines have been widely utilized as effective remedies for the prevention and treatment of multiple health conditions for centuries by almost every known culture[2]. Due to their easy access, being locally available coupled with wider belief systems, many populations especially in Africa still depend on herbal medicines to address their healthcare needs. The World Health Organisation global report of 2019 on traditional and complementary medicine reported that a majority (80%) of the member states of the WHO region of the Americas also acknowledged the use of traditional and complementary medicine amongst their populations which also includes herbal medicine[3]. Thus, it is not surprising to note the use of herbal medicine by People Living with HIV.

1.2 Statement of the problem

HIV and AIDS treatment success requires a lifelong adherence to Antiretroviral Therapy (ART) by HIV patients. In addition to ART, herbal medicine is also widely used by People Living with HIV in sub Saharan Africa which includes Malawi. Some studies conducted in some countries in Africa have found out that HIV infected individuals that are on ART also use herbal medicine[4][5]. In Malawi, no known studies have been conducted to show the extent of herbal medicine use among People Living with HIV in relation to ART adherence.

1.3 Literature review

1.3.1 Burden of HIV

Globally, it is estimated that 36.9 million people are living with HIV[6]. This makes HIV a continued major global public health issue. East and Southern Africa has the biggest share of the burden of HIV with 19.6 million people living with HIV representing 53 percent of the global HIV burden[6]. In 2017, a total of 1.8 million new infections of HIV were reported in the region[7]. This represents a decline from 1.9 million new infections registered in 2016. According to UNAIDS, 21.7 million people were reported to be on treatment in 2017 which meant that more than half of the people living with HIV were on treatment[6]. This represents a dramatic increase owing to global efforts in ensuring that people who are infected with HIV are on HIV care and treatment. In Malawi, HIV prevalence is estimated at 8.8% among adults aged 15-49 years[8]. In 2016, 70% of People Living with HIV in Malawi were aware of their status, of which 89% were on treatment. This equates to 66% of all People Living with HIV in Malawi being on treatment[7].

In 2004, approximately 930 000 Malawians were thought to be infected with HIV, with an estimated 100 000 new HIV infections occurring annually and around 170 000 people in immediate need of Antiretroviral Therapy[9]. That year, the government of Malawi through its Ministry of Health decided to scale up ART nationwide[10]. The Malawi Government with an effort to expand ART coverage, from 2004 onwards, ART delivery was decentralized from hospitals to peripheral health centers, with responsibility for initiating treatment being devolving from doctors, clinical officers, nurses to lower cadres such as medical assistants which are readily available in most of the primary health care facilities in the country[10].

Another milestone in the scale up of ART came when Malawi adopted the 'test and treat' strategy in 2015, which calls for all People living with HIV to begin Antiretroviral Therapy as soon as they are diagnosed with HIV, irrespective of their CD4 count[11]. These government strategies have resulted in Malawi's ART rollout significantly expanding, with 68% of adults living with HIV receiving ART in 2016, an increase of 18% from 2013[12]. Substantial progress so far has been made towards the achievement of the UNAIDS 90-90-90 targets. Among adults aged 15-64 living with HIV, 70% were reported that they were aware of their HIV positive status of which 89% of those reported being on Antiretroviral Therapy, and 89% of those reported to be on ART were virally suppressed[7].

1.3.2 Herbal medicine use in Africa

In 2011 around 80% of all HIV-infected persons worldwide were in Sub-Saharan Africa, where up to 80% of the population in most of these countries depend on various degrees of herbal medicine for different health care reasons[13]. As noted by Lubinga et al, herbal medicine use by People Living with HIV might have further been reinforced possibly because modern HIV care and treatment was often costly and inaccessible to patients in many rural areas[14]. However, this has been countered by strategies of government in making sure that HIV care and treatment is accessible by everyone including those in rural areas.

Despite ART being accessible to majority of PLHIV, use of herbal medicine by HIV patients on ART still remains popular. Studies from Uganda indicated that almost half of the patients 46.4% reported concomitant herbal medicine and ART use while most of the patients 71.6% used herbal medicines to treat HIV-related symptoms[14]. Another study in South Africa found out that 32% of HIV patients on ART were also using herbal medicine with 84% reporting to have ever used herbal medicine[15]. Interesting to note in most of these studies is that most of the HIV patients

reported usage of herbal medicine to treat opportunistic infections. However, some studies have also revealed how the use of herbal medicine by People Living with HIV affects ART adherence. Adherence to Antiretroviral Therapy is very important to optimise HIV treatment outcomes and prevent the development of drug resistance which is more difficult to treat and costly in terms of second line ART treatment. A study in Nigeria found out that ART adherence was lower (69.6%) for patients on concurrent ART and herbal medication[16]. This was mainly because the prescribed herbal medicine required the HIV patients not to combine with the modern ART for the reason of what the sellers called maximising the herbal therapy treatment outcomes.

1.3.3 Herbal medicine use in Malawi

Though much about use of herbal medicine among People Living with HIV in Malawi has not been reported, herbal medicines are increasingly becoming more common in Malawi. Currently, Malawi has no regulations for use of commercial herbal medicines though there are so many brands of these available on the market. These herbal medicines are still being commonly sold without any restrictions. Furthermore, most of the health care providers do not even know that their HIV patients are using herbal medicines since most of them tend to use these secretively[17]. According to an expert opinion at Queen Elizabeth Central Hospital, Umodzi ART clinic, it is until these HIV patients present late to the hospital with complications of not being adherent to ART when they know about herbal medicine use. This happens either because they have experienced drug interactions if they were mixing up, or else may be even stopping ART with the hope that the herbal medicine they were using might help them better from HIV infection than the ARVs. However, use of herbal medicines in Malawi has also been demonstrated to have some negative effects with other conditions other than HIV. A secondary analysis of a randomized controlled trial data among pregnant women in rural Malawi by

Zamawe et al found that reported use of herbal medicine was associated with increased occurrence of maternal morbidity and neonatal death or morbidity[18]. Similarly, some articles published on local online media in Malawi have expressed concerns about how different herbal medicine products are claiming to improve or cure the HIV virus. The Malawi Pharmacy, Medicines and Poisons Board in May 2018 expressed concerns through an online media article over the proliferation of herbal medicines on the market. They described these herbal medicines as quack remedies especially in relation to cure of HIV[19]. They articulated the biggest problem with these remedies being that so many people do take these herbal remedies as alternatives to scientifically proven medicines (ARVs) that really do not suppress HIV replication[19]. Failure to control the use of these herbal medicinal products would really have a negative impact on patient outcomes of the HIV pandemic. The World Health Organisation supports traditional medicines as it facilitates integration of traditional and complementary medicines into national health system by helping member states to develop their own policies[1]. In our Malawian context the traditional and complementary medicine policy is there but there is no regulation or restrictions to commercial herbal medicines to the public.

1.4 Justification of the study

The urgency to explore the relationship between herbal medicine use and ART adherence among People Living with HIV is indicated by the fact that around 53% of People Living with HIV globally in 2017 were in Eastern and Southern Africa[20]. This region is where up to 80% of the population depend on various degrees of herbal medicine for different health care reasons[21]. However, with different brands of commercial herbal medicine products available on the markets, some claiming to improve or cure HIV and AIDS there was need for data on the extent to which the use of these herbal medicines affects ART adherence in this era of increased access

to ART. Despite several efforts being made by the Malawi government to increase ART access to People Living with HIV in the country their might still be a possibility that even more HIV patients are using these herbal medicines to manage HIV infection which can in turn compromise the government efforts to combat HIV. This study was therefore designed to explore the relationship between herbal medicine use and ART adherence in order to add to the body of literature on the subject that could ultimately be useful in formulating policies and regulations for herbal medicine use by PLHIV in Malawi so as to improve patient survival.

1.5 Objectives

1.5.1 Broad objective of the study

The main objective of this study was to explore the relationship between herbal medicine use and ART adherence among People Living with HIV in Blantyre, Malawi.

1.5.1 Specific objectives

Specifically, the study aimed at:

1. Determining the use of herbal medicine among HIV patients attending ART clinics.
2. Determining patterns of herbal medicine use among People Living with HIV.
3. Exploring potential interruption to ART medication among HIV patients due to herbal medicine use
4. Determining associated factors for herbal medicine use by People Living with HIV.

CHAPTER 2

2.0 METHODOLOGY

This chapter presents the research methods employed in this study. It describes the design, recruitment of study participants, data collection methods, data management and analysis, ethical considerations, limitations and other practical issues related to field work.

2.1 Type of research study

This was a Qualitative study guided by the Phenomenological study design. A phenomenological study design was deemed appropriate given the questions that the study had set out to answer. Qualitative research is very critical in unpacking social contexts and understanding phenomena in their natural setting. Phenomenological design was selected to underpin this study because it provides a rich and complete description of human experiences and meanings. In Phenomenology the investigator does not impose findings; rather the findings are allowed to emerge by following steps that ensure that there is no change or distortion of the initial participant's transcript throughout all the study phases.

2.2 Study place

The study was conducted at Chirimba and Madziabango primary healthcare facilities within the Blantyre District Health Office. These health care facilities are owned by the Government of Malawi through its Ministry of Health in Blantyre District (refer to appendix 10 for the map). These primary health care facilities serve both urban and rural populations in the district. Blantyre District is located in southern Malawi and has the highest HIV burden at 18.2% according to Malawi Population-based HIV Impact Assessment report of 2015-2016[12].

2.3 Study population

The study included HIV patients over 18 years of age who had been on ART for at least 6months and had their initial viral load test done at the ART clinics of Chirimba and Madziabango health facilities. These were selected because at 18 years as per Malawi government regulations they are considered to be adults and they would be able to make a decision on their own, whether to use herbal medicine or not. Also initial monitoring of adherence to ART starts at 6months from the start of ART so these were included on the same reason of having been experienced on ART program with at least initial adherence monitoring test done.

2.4 Sampling

Purposive sampling was used to select study participants. All the study respondents were purposively selected where respondents considered to have relevant information about use of herbal medicine among HIV infected individuals were interviewed to obtain wide range of perspectives.

Defining a prior sample size is beyond the scope of a qualitative study. The accepted technique used in qualitative research to determine sample size is that of saturation[22]. Saturation refers to a point when no new information (categories and themes) is emerging from the interviews and the researcher is confident that they understand the issues being expressed[22]. Qualitative inquiry assumes that information is collected until redundancy and saturation are reached.

In purposive sampling, respondents were selected based on the fact that they share the same characteristics. In the case of this study, being HIV positive, on ART treatment with the initial routine viral load monitoring test done and having ever used herbal medicine.

In total 34 participants were interviewed. These were patients attending ART clinics at these selected health care facilities. The sample size was guided by the recommendation of the Grounded Theory design to qualitative research of a sample size of 6 – 30 participants[22]. A higher end of this range was chosen in order to get broader perspective of information from participants with different experiences on the ART program.

2.5 Study Period

The study was conducted for a period of 12 months from September 2018 up to August 2019. (Proposal development, study implementation activities and write-up). Data collection process took place between the months of January and February 2019 (refer to appendix 12 for study implementation of activities).

2.6 Data collection process

Preparation: Prior to the commencement of the data collection, the Blantyre district ART coordinator was informed about the study to be undertaken. This included the rationale, objectives, methods and ethical consideration for the study. This helped to create a collaborative environment with the service providers in the ART clinics and facilitate the logistics and procedures for conducting the study. Thereafter, service providers were requested to inform the patients at the ART clinics about the study during health talks without fully disclosing details of the study that could prematurely cause tension and stigma thereby consequently affecting the patient's willingness to participate in the study.

Enrollment of study participants: Study participants were recruited during normal ART clinic days in these health care facilities. The patients were approached around the clinic individually after their routine visit and they were asked if they had ever been exposed to herbal medicine

use. Those who were deemed eligible according to our study protocol were invited to participate in the consenting process. We obtained informed consent from all participants who accepted to participate in the study before starting the interviews.

Data collection: Initially 40 interviews were planned, 20 at each of the health care facility but saturation was reached at the 18th participant at Madziabango health center and at 16th participant at Chirimba health center. Data were collected using Individual In-depth Interview guide (refer to appendices 7 and 8), and a general demographic questionnaire (Refer to Appendices 5 and 6). The interview guides were first developed in English and translated into Chichewa then were pretested. Based on the pretest, questions that seemed not clear were modified accordingly. The research team consisted of the principal investigator and two research assistants with a diploma in community health nursing and were trained in the whole data collection process prior to field work.

Twenty-eight of the 34 interviews were conducted in Chichewa, the other six interviews were mixed in English and Chichewa and were recorded using digital recorders, except for one participant who refused to have her voice recorded. The notes for this interview were recorded by hand. The investigator administered the interview guide with assistance of the research assistants. Interviews with the consenting participants were conducted in a private room that was provided within the health care facilities.

2.7 Data management

Data analysis was done manually using principles of thematic content analysis which involved categorizing the content of data into emerging common themes. The following process was followed:

2.7.1 Thematic content analysis

Throughout the data collection process the investigator continuously reflected on the emerging topics as part of the initial data analysis. This information guided the continuing data collection. The investigator was able to further analyse recurring themes and identify or follow up on unexpected findings.

2.7.2 Transcription and translation

All the voice recorded data were first transcribed verbatim into Chichewa. The Chichewa transcripts were then translated into English. The process of transcribing and translating from Chichewa to English was done by the research assistant with supervision of the investigator.

2.7.3 Coding

Coding was done at two levels. The first level was immersion, where the investigator read the scripts over and over and with careful examination selected key words or phrases which contained a single unit of meaning[23]. These words were written along the margins of the transcript adjacent to the section being labelled. At this level the researcher tried as much as possible to use the direct words or terms used by the respondents.

At the second level of coding, the investigator looked for similarities in the codes identified at the first level. The emerging codes where similarities were observed were grouped together. The investigator then carefully examined emerging relationships and categorised them into themes.

2.8 Study limitations

The study was limited in terms of finances. Due to this reason the study was only conducted at two facilities out of the 32 facilities in Blantyre district. Although we reached saturation in these facilities wider views from different settings would also be important.

2.9 Ethical considerations

This study was approved by the College of Medicine Research and Ethics Committee (COMREC) (refer to appendix 11). Permission to conduct the study at the selected health facilities was obtained from Blantyre District Health Office (refer to appendix 9). Special attention was made to ensure that the study did not violate ethical principles governing medical research. The following issues were addressed:

Informed Consent: Before the interviews, informed consent was sought from the participants and allowed them to make informed decisions to participate in the study (refer to appendices 1 and 2). In this process we explained the details of the study including objectives, content and process of data collection. Participants were given the opportunity to ask questions and seek clarification. The investigator also tried to ensure that the participants had understood the information provided by asking them questions and repeating those aspects that did not seem to be properly understood.

Following this round of information, the investigator sought a voluntary decision from the participants. Those who accepted to participate in the study were asked to provide a signature or

thumbprint to show their consent. All the participants who accepted to be interviewed made their decision immediately.

Confidentiality: To ensure confidentiality, all interviews were conducted in a private room which was provided within the health facility where participants felt safe to express themselves. Caution was taken to always ask individual participants if they were comfortable to have the interview in that room. Furthermore, the responses from the study participants were kept in private with access only available to the investigator only.

Anonymity: The likelihood of linking study participants with their confidential personal information was reduced by strictly using study identification numbers and not names or any other personal identifiers on all study materials. All written participant information and the voice recorders were kept in a lockable cabinet in the interview room throughout the data collection process, after which they were transferred for safe keeping with the principle investigator. All the transcribed material was kept on a password protected computer which could only be accessed by the study investigator and the research assistants.

CHAPTER 3

3.0 RESULTS

This chapter presents the main findings of the study. It starts with a brief description of key characteristics of study participants. This is followed by a presentation of three key themes that emerged from the data all framed through the lens of HIV care which were (1) patients' perspectives on ART medication, (2) herbal medicine use in relation to HIV infection and ART adherence, and (3) perceived quality of medical care. Subthemes were identified under each of the main themes. All quotations used in this section are from voice recorded interviews and depict the respondent's voices as concretely as possible.

3.1 Characteristics of study participants

As presented in the table 1 below, a total of 34 participants were interviewed. Their ages ranged from 19 to 54 years. Majority of the study respondents were married and had at least attended primary and secondary school education. In addition, most of the respondents looked physically well at the time of the interview.

Table 1:Demographic characteristics of study participants

Characteristic	**Number of respondents (n=34)**
Age in years (Range)	19 – 54
Sex	
Male	16
Female	18
Marital status	
Married	21
Single	7
Widowed	3
Divorced	2
Education attainment	
University	8
Secondary	10
Primary	7
None	9
Length on ART	
6 months – 2 years	11
>2 years and over	23

3.2 Patients' perspectives on ART medication

3.2.1 Experiences with ART medication

Participants were asked about their experiences with ART medication whether positive or negative. Twenty-seven of the 34 respondents we interviewed had a positive attitude towards ART medication. They felt that ART was a better option because of long term benefits in terms of their health as the medication is able to suppress their viral load. They felt ART is very beneficial to them and it is a great relief to be saved from HIV infection by being provided with free medical ART care from the Government. One of the patients in support of medical ART care had this to say:

> "*this ART program has really helped us HIV patients because back in the days when you just catch this HIV virus everybody would look at you as a person who can die anytime but now with this medication our bodies are now strong, we are able to do our routine jobs and nobody can even recognize us as being infected with HIV"* **respondent no 6**

However, we noticed that the twenty-one positive comments about ART we got from the respondents were coming from the patients that had been on ART for a long time, i.e. more than 3 years or so on the ART program. Six patients that had just started taking ART i.e. less than 1 year, were a bit skeptical about mentioning most the good things about ART citing taking pills everyday as a burden on their daily routine. However, this was also mentioned by those who had been on ART for a long time. They said that they felt taking the pill every day was a bit challenging when they had just been initiated on the ART program but then they got used to it as time went by. Almost all the respondents knew that ART medication to them was for their lifetime and that stopping or interrupting ART medication had consequences on their health. These were some statements we got from some of the participants:

"*we HIV patients know that we are supposed to take the ARVs for life and the health workers here at the hospital do tell us that stopping the ART medication has got serious consequences on our health and we may even die if we are not adherent."* **Respondent no 21**

"I am very much aware that these ARVs are for my life time and if I stop I will end up getting serious illness from this HIV infection that I was diagnosed with." **Respondent no 32**

The statements portrayed that the patients were aware of the fact that they are supposed to be adherent to ART medication if they are to live healthy with HIV. Most of the HIV patients based their motivation of being adherent to ART medication on the experiences of their colleagues who did not access ART medication or were not adherent and died from HIV and AIDS related illnesses. Some patients did not analyse the benefits of ART but accepted the treatment in compliance with what they called "health workers' instructions" about managing their health in relation to being infected with HIV. As one of the patients said:

"*myself I couldn't hesitate to accept the ARV drugs that were prescribed to me by the doctor, since these people are properly trained on their job and they know better medication for us to live longer with this HIV virus."* **Respondent no 7**

3.2.2 Perceived risk with ART medication

Twenty-four participants commended the current ART regime as being a relief from pill burden since they are only taking one pill per day. However, they were also curious that taking these ARVs every day for their life time would mean toxins accumulating in their body which they felt like is a health hazard. This view was shared across the majority of the study participants regardless of the duration that one had been on ART:

"*sometimes I get so tempted to quit these ARVs because I feel like these medicines leave some poisons that remain in the body everyday as am taking the drugs."* **Respondent no 13**

In addition to this another HIV patient expressed their views on the same:

"You know medicine is medicine, even though we are taking the ARVs to prolong our lives but we can't be 100% sure that these medicines are also not doing any hazard to our bodies. I still think that it's too much for us to be taking these tablets every day for the rest of our lives. I am afraid that one day my body will get tired processing these ARVs as well." **Respondent no 6**

However, we also discovered that most of the side effects that were experienced by most of the HIV patients were already made aware to them at the initiation of the ART program so they were already prepared when they experienced them:

"When I was just starting ART in the early days, I used to feel nausea, dizziness and some body weaknesses but I was not surprised because the doctor here already informed me about these during the pre-ART counselling." **Respondent no 5**

3.3 Herbal medicine use in relation to HIV infection and ART adherence

3.3.1 Knowledge of herbal medicine use in relation to ART adherence

Participants were asked what they knew about herbal medicine use and ART adherence. Most of the participants were of the view that knowledge about herbal medicine use in relation to ART adherence was a critical factor towards adherence to ART medication. Majority of the respondents seemed to doubt about the effectiveness of herbal medicine against HIV. There were

mixed ideas across study participants about herbal medicine use and ART adherence. More than half of the participants thought that herbal medicine might as well work against HIV if scientists are to work out on discovering some of the therapeutic ingredients contained in the herbal medicines.

Some respondents had experiences of themselves and some of their colleagues that seemed to look healthy while using herbal medicine alone. They were optimistic that there might still be some curative components in herbal medicine against the HIV. Thirty-one of the 34 respondents we interviewed were aware that the markets are infiltrated with a lot of herbal medicine brands that claim to improve or cure the HIV infection and that most of these recommend that the herbs be used independently from ARVs. However, none of the study participants had ever gotten any information about these herbal medicines that claim to improve or cure HIV from their health facilities. They only realised about these herbs back in the community. As narrated by one patient in their response:

> *"we know very well about the herbal medicines that have flooded the markets this time, only that we can't tell which herbs are really effective against this HIV virus because everybody is claiming that their herbs can deal with this virus."* **Respondent no 11**

> *"You know the problem is we have never been told about herbal medicine information during any of our routine visits here at the ART clinic so it's very easy for the sellers of these herbal medicines to convince us into using these herbs to manage this HIV infection"* **Respondent no 28**

On the same issue an HIV patient that had been on ART for 8 years had this to say:

"I have been on ART for at least 8 years now but I have never heard of any health worker talking to us about these herbal medicines and how us as HIV patients are supposed to stand strong against being convinced that these herbal medicines do not work against the HIV virus as such an HIV patient can easily be taken up by these herbs trusting that we can be healed of HIV by these." **Respondent no 6**

3.3.2 Community perspectives on herbal medicine use and ART medication

Participants reported that most of HIV patients tend to be secretive about use of herbal medicine in their communities up until something bad happens to them i.e. this would be revealed if somebody got so ill after interrupting ART with herbal medicine. From the perspective of the majority of respondents we interviewed, it was very clear that most of HIV patients know that it is not recommended for them to use these herbs that's why they don't like to be known that they are using herbs:

"You know people tend to hide about these things. They wouldn't want others or even our doctors here at the hospital to know that they are using herbs for fear of the obvious thing that they are going to be condemned since most of us HIV patients know that what they are doing is not good" **Respondent no 8**

3.3.3 Traditional beliefs about herbal medicine

Participants also spoke of the merits of herbal medicine, suggesting that it is still an important part of the health system. While some participants had different views on herbal medicine therapy in relation to HIV infection, some participants were of the view that the healing power in these herbs cannot be underestimated considering that they have been trusted for ages by our

ancestors from generations to generations. Participants expressed how proper relations between complementary herbal medicine with the modern health care system can improve or even cure health conditions including HIV infection as most of the things about this still remain undiscovered. As quoted on some of the respondents saying:

> *"some of us HIV patients also trust the traditional world because it has stood the test of times and it has even proven to work on a majority of health conditions. We can also still use it to cure this HIV"* **Respondent no 14**

> *"at the moment I am about 50 years old and I have witnessed a lot of people who have been healed from a lot of different health conditions by these herbs after failing to get cured with the modern health system, so I still believe the traditional medical care can still help in combating this HIV virus if there is a will by the government to incorporate it into the modern health care system."* **Respondent no 9**

The Majority of the respondents strongly endorsed ARVs but also acknowledged the healing power of herbal remedies because of the ancestral beliefs that these herbs have proven to work on several health conditions over a long period of time.

3.3.4 Exposure to herbal medicine use by People living with HIV

Twenty-seven of the 34 participants reported to have ever used herbal medicine since they started ART. They attributed their use of herbal medicine to some of the health benefits of herbs like body cleansing as they also believe that the ARVs accumulate toxins in their bodies. Most of them said that they feel stronger after taking the herbal medicines:

*"most of us feel better to use herbal medicine because we have heard that the ART medication we get from the hospital leaves poison in our bodies as such herbal medicines do cleanse our body system as we are taking these ARVs…***respondent no 7**

The participants that confided in us that they have ever used herbal medicine had different responses when asked about how they take these herbal medicines considering that they are on ART. Twelve of the 27 respondents said that they were using the herbal medicines alongside ART while the remaining indicated that they use herbal medicine intermittently. When asked why they used herbal medicines intermittently they indicated that mostly it is from the advice of the herbal medicine sellers that tell them not to combine herbs with ART medication for effective outcomes of the herbal medicine. Duration of herbal medicine use varied across the study participants depending on the type of herbs purchased. According to the study participants some manufacturers of these herbs recommended a minimum of six weeks use while others recommended 3 to 6 months' usage of these herbs separately from ART:

"these people that sell the herbal medicines mostly recommend that we should stop taking these ARVs if we are to make the herbs work better in our bodies. Some even recommend that we should take the herbs for up to six months or so according to the dosage and we may get cured of this HIV." **Respondent no 15**

The other respondents expressed negative views about using herbal medicine alone or in combination with ART based on their own experiences and other HIV patients' experiences. Six respondents described about their fellow HIV patients who stopped taking ARVs and were on herbal medicine remedies alone and consequently died later because of HIV and AIDS related illnesses. Another respondent speculated that some of her fellow HIV patients had died before because of mixing herbal medicine and ARVs:

"I think mixing up the ARVs and the herbal medicine would confuse the body system and you might end up getting sick because of may be overdose of too many medications and can be dangerous to the body" **Respondent no 5**

"There was a time I stopped ART completely and I was taking herbal medicine alone. That was the advice I got from the one who sold me those herbs to take the herbal concoction for at least 3 months and I will be cured of HIV but before I even finished the dosage, I felt so sick in the course of taking the herbs and my viral load went so high then. I underwent intensive adherence counselling until I started ARVs again and got better otherwise I would have died." **Respondent no 9**

3.4 Perceived Quality of medical care

3.4.1 Health system factors

Majority of the participants highlighted that the health system in terms of infrastructure and health personnel also contributes to People Living with HIV to just resort to be using herbal medicines. Twenty-three participants complained about how them as HIV patients on the ART program are handled at health facilities in ART clinics. They complained about the setting of the ART clinic that there is no privacy since it's just an open space and that mostly there are always on the long queues waiting to be helped out on their routine visits. This was attributed to a few health workers that are present to assist them out at the ART clinics:

"madam, you can imagine most of us live very far from this health facility, and this is the only nearest health facility from our village. We have to walk for about 2 hours or so just to get here and after getting here we find very long queues just to be attended to by the health workers. By the time we are done with the medical service here we have to walk

back home tired. By the time we get home its already very late in the afternoon. These are some of the things that makes one to just resort to using the nearest available herbal medicine that people claim to cure HIV." **Respondent no 2**

3.4.2 Patients' perception on commercial herbal medicine brands

Participants in both of the health facilities showed some trust with herbal medicines that are branded especially those that are sold in pharmacies. They were of the view that if pharmacists are selling these herbal medicines in their shops it means that they also have trust in these herbs that they would work on the HIV patients:

"If these modern pharmacies are selling these herbs who am I not to buy and use these herbal medicines. We already trust them with most of the medicines that we buy from them" **Respondent no 6**

"We know that modern pharmacies are highly regulated for them to be allowed to sell different medicines on the market, and if they are selling these herbal medicines, how can we doubt the herbs that they are selling to us." **Respondent no 10**

CHAPTER 4

4.0 DISCUSSION

In this chapter the researcher discusses and interprets the findings in the preceding chapter of the study with reference to existing knowledge. The discussion is based on the research objectives. The researcher further considers the limitation and implication of the study findings with regard to HIV patient care and use of herbal medicine among People Living with HIV.

4.1 Herbal medicine use and ART adherence

The impact of herbal medicine use on ART adherence in Malawi has not widely been reported. According to our study findings it is very apparent that herbal medicine is being used by People Living with HIV regardless of their health status or duration on ART medication. In this study it has been evident that herbal medicine use interrupts HIV patients' adherence to ART medication. Generally, because most of the HIV patients lack proper information on HIV infection and herbal medicine use, as such most commercial herbal medicine sellers are taking advantage of them by giving wrong information that they will get cured of the HIV virus once they take the herbal medicines instead of the ARVs.

Some studies in sub Saharan Africa have also suggested the relationship between herbal medicine use and ART adherence[16,17,24]. A study done in South Africa in 2019, revealed that though most of the HIV patients had respect and certainties about ARVs, it was also evident that ancestral beliefs particularly about the healing power of herbal remedies could not have been excluded[25]. Many of the participants endorsed the use of these herbal medicines despite being on ART medication. On the contrary similar studies done in Southern Africa revealed that most of HIV patients were using herbal medicine concomitantly with ART and this did not have any

effect on their adherence to ART medication[14]. In this study most of the HIV patients used herbal medicine as part of complementary care as opposed to curing the HIV infection. Results from this study also agrees with the views of some of our study participants that indicated that they were mixing up ART with herbal medicines for body cleansing purposes other than curative purposes.

4.2 Potential interruption to ART medication and patterns of use

The study findings have also established that there is potential interruption to ART medication among People Living with HIV because of herbal medicine use. This has come into play because there are still trusted feelings of healing power after taking these herbal medicines. It has been revealed that herbal medicine sellers mostly do advise HIV patients not to mix ART with herbal medicine and this consequently leads to the HIV patient interrupting their ART medication. However, a research article published in 2016 by Chinsembu et al about ethnobotanical study of plants used in the management of HIV/AIDS-related diseases revealed that most of the medicinal plant species that are being used to manage HIV/AIDS-related diseases mainly skin infections, diarrhea, STIs, TB, cough, malaria, and oral infections were being effective[2]. This could probably explain the reason why most of the HIV patients were feeling better after taking the herbs as also reported by some of the respondents in our study.

Some respondents in our study confided in us that there were many times that they felt well when they were taking these herbs to the point that they defaulted ART for a while until such time that they felt unwell and they had to visit the ART clinic again. Most patients that were using herbal medicine separately from ARVs thought that they could be cured of the HIV infection as claimed by the ones who were selling them these herbs. Their counter parts that were

combining herbal medicine with ARVs were just using the herbs as a complementary health care.

4.3 Perceived quality of medical care

Few studies have reported about relationship between ART adherence and health system. Among the studies that have examined this, cost of access to ART has been reported as one of the barriers to ART adherence[15,26,27]. This was not reported in our study since ART medication is readily available and is free to every HIV patient in Malawi. However, patients expressed that inadequacies in the health care system is a contributing factor for HIV patients to resort to taking herbal medicines instead of ARVs. Most of the HIV patients complained about the setup of the ART clinics and shortage of health care providers at the ART clinics. They were of the view that the ART clinic needed to be a closed building in a fence because of the long queues so that they are not seen by many people around the facility for fear of being labeled and discriminated. Most of them talked about how at most of their scheduled visits, there are only a few health workers to assist them at the ART clinic.

As noted by Lubinga et al, in a study done in western Uganda on the same, herbal medicine use by HIV patients might have been further reinforced possibly because modern HIV care and treatment was often costly in terms of time taken to be helped at ART clinic and inaccessible to patients in rural areas[14]. This concurs with our context here in Malawi since a larger population of HIV patients accessing these ARVs are in the rural areas. Some of the bad experiences at the ART clinics would have forced them to just resort to herbal medicine use to manage the HIV infection.

Similarly, the poor quality of medical care has also been reported in a study that was done by Dahab M et al in South Africa. They discovered that long waiting times at the ART clinic and use of traditional medicine were some of the barriers to adherence to ART medication[25]. The patients that reported to have used complementary medicine after starting ART also said that they had stopped ART for the duration that they were using complementary medicine. Most of the patients were not satisfied with the medical care to the point that they were discouraged to come back to the ART clinic to pick up their medications. These were the HIV patients that were interviewed from their workplaces in South Africa, thus it is not surprising to note about the similar views that were raised by participants in our study.

Surprisingly, on the other hand, a study done in South Africa on persistence use of herbal medicine in treatment of HIV revealed how some of the traditional healers kept on avoiding the treatment of any perceived end-stage HIV terminal conditions, as the death of a patient was bad for their business[5]. This simply shows that even though there are claims about the therapeutics of herbal medicine against HIV, there are still doubts and uncertainties on herbal medicine treatment against HIV infection.

4.4 Possible limitations of the study

The findings of this study may not be generalizable to other settings as it only focused in Blantyre district, Southern Region of Malawi. Furthermore, the study targeted a specific group of people, i.e. those that had ever used herbal medicine. Similarly, much as this study could be carried out in different settings to have wider views, it was difficult to do so because of time factor hence the results may not reflect the whole situation on the ground. However, we believe that the themes reported are accurately represented.

CHAPTER 5

5.0 CONCLUSIONS AND RECOMMENDATIONS

This chapter focuses on the conclusions, public health implications and recommendations made after critically analysing the findings of the study.

5.1 Conclusions

In conclusion this study has shown that Herbal medicines are widely being used by People Living with HIV and this consequently disturbs their adherence to ART medication. Some use the herbal medicines for managing the HIV infection separately or as complementary medication along with ARVs and some as part of their routine personal health care. In treating the HIV infection, we still need the ARVs but at the same time we cannot ignore the popularity of herbal medicine as it remains the long trusted and easily accessible health care to many. Most of the HIV patients who intermittently use these herbal medicines do definitely default around the time that they switch from ARVs to herbal medicine. Further understanding of the two therapies and the reasons for seeking the alternative therapy (herbal medicine) for treating HIV infection may allow for greater coordination between the two health care systems there by improving HIV patient care and survival in Malawi.

5.2 Public health implication of study findings

As per the study findings, according to the 90 90 90 UNAIDS target agenda for HIV and AIDS, the last 90 calls for all the 90% of the HIV patients that are on ART to have their viral load suppressed so as to reduce new infections to almost zero by 2030. By most of these People Living with HIV defaulting on ART because of herbal medicine use, it means that viral suppression cannot happen thereby compromising disease prognosis and increasing the

emergence of new HIV cases which will then lead to a disruption of achieving the 90 90 90 UNAIDS target. As a country there is need to improve awareness mechanisms about herbal medicine use and HIV infection so as to not compromise HIV patients' adherence to ART medication.

5.3 Recommendations

The results of this study have got public health implications that are crucial for policy implementers and program planners in the field of HIV and AIDS care. The results have demonstrated that an enabling health system that will not restrain an HIV patient from attending their scheduled ART clinics is very vital. Proper infrastructure for ART clinics, adequate human resources for health and health information awareness is very crucial in the management of HIV patients. These factors will make the HIV patient to decide on whether to switch to any other medication apart from ART and that pre ART counseling information is also the bedrock for adherence to ART and retention in HIV treatment and care.

Despite that we were able to find these People Living with HIV that have ever used herbal medicine at the ART clinic, we recommend that there is need for the Ministry of Health to include use of herbal medicine information in the pre ART counseling information which currently lacks this information. This information should also continuously be given to the HIV patients during their routine ART clinic visits. These HIV patients do start the ART program at the health facilities but when they get back to their communities that's where they meet these contradicting medications (herbal medicines). The HIV patients are easily convinced that they will get cured of HIV by using the herbal medicines there by compromising their adherence to ART medication. If they are already well prepared at their health facilities, these HIV patients cannot easily be convinced about taking these herbs to manage their HIV infection.

As the commercial herbal medicine brands a still proliferating on the markets today, there is need for the government of Malawi to regulate these herbal medicine brands since the study has clearly shown that the HIV patients have got trust in the commercial herbal medicines especially the ones that are also being sold in the modern pharmacies. Community perspectives on herbal medicine use has also demonstrated that most of the HIV patients do hide these complementary medications. Since the exact risk or benefits are largely unknown there is need for the Government through Ministry of Health to incorporate herbal medicines into the modern health care system so as to analyse the curative elements of these herbal medicines better.

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APPENDICES

Appendix 1: Participants Informed Consent Form, English Version

An Exploration of the Relationship Between Herbal Medicine Use and Antiretro Viral Therapy Adherence Among People Living with HIV in Blantyre, Malawi

My name is Thokozani Noniwa, a Master of Public Health student in Final year at University of Malawi, College of Medicine. I am conducting a study titled; **An Exploration of the Relationship Between Herbal Medicine use and ART adherence among People Living with HIV in Blanytre, Malawi.** I am going to give you information and invite you to be part of this research. You do not have to decide today whether or not you will participate in this research. As you know HIV infection is very common in Malawi and despite Antiretroviral Therapy being readily available in the country it has been noted that many HIV patients are using herbal medicine to manage HIV infection. We believe that you can help us by telling us what you know both about HIV infection and use of herbal medicine in general.

The study aims at determining the use of herbal medicine among HIV patients attending ART clinics, determine patterns of use of herbal medicine among HIV patients, explore potential interruption to ART medication among HIV patients due to herbal medicine use and to determine associated factors for herbal medicine use by HIV patients. Before you decide, you can talk to anyone you feel comfortable with about the research. This consent form may contain words that you do not understand. Please ask me to stop as we go through the information and I will take time to explain. If you have questions now or later, feel free to ask me anytime.

I will be grateful if you could spend some time with me to participate in this interview. This interview will be audio recorded and all information collected from this interview will be treated confidentially and be assured that nobody is going to have access to it except the researcher only.

Your name will not be recorded, some of the questions will require you to open up and you are not compelled to answer questions that you do not want to. You may also withdraw from the interview at any time. However, knowing the importance of this study on HIV patient's lives in this area being explored, we will be grateful if you will agree to take part in this study.

Thank you.

Consent granted: Yes_____ No_____.

Participant's signature after consenting: _____.

Thumb Print:……

Witness signature:_____

In case of inquires/complaints call: Thokozani Noniwa…….. +265999434301

COMREC…….... +265187191 Ext 334

Thank you for participating

Appendix 2: Chikalata Cha Chilolezo Kwa Otenganawo Mbali

Kafukufuku Wofuna Kuona Ngati Pali Ubale Pakati pa Kugwiritsa Ntchito Mankhwala a Zitsamba ndi Kamwedwe ka Mankhwala a Ma ARV Pakati pa Anthu omwe ali ndi Kachirombo ka HIV ku Blantyre, Malawi

Dzina langa ndine Thokozani Noniwa ophunzila wa ku sukulu ya ukachenjede ya zachipatala ku College of Medicine. Ndikupanga kafukufuku wofuna kuona ngati pali ubale pakati pa kugwiritsa ntchito mankhwala a zitsamba ndi kamwedwe ka mankhwala a ma ARV pakati anthu omwe ali ndi kachirombo ka HIV ku Blantyre. Ndidzakupatsani uthenga okhudzana ndi kafukufukuyu ndipo tidzakupemphani ngati mungathe kutenga nawo mbali pakafukufukuyu. Monga mukudziwa, kachilombo ka HIV kafalikila kwambiri mu dziko lathu lino la Malawi ndipo ngakhale mankhwala otalikitsa moyo a ma ARV ali nkupezeka ponse ponse mu dziko lathu lino kafukufuku wina akusonyeza kuti anthu ena omwe ali ndi kachirombo ka HIV akugwiritsabe ntchito mankhwala a dzitsamba pofuna kuthana ndi matendawa. Tikukhulupirira kuti inuyo mukhoza kutiuza zomwe mukudziwa kumbali ya kagwiritsidwe ntchito ka mankhwala a dzitsamba pakati pa anthu amene ali ndi kachirombo ka HIV.

Kafukufukuyu akufuna kuona ngati anthu amene ali ndi kachirombo ka HIV akugwiritsa ntchito mankhwala azitsamba, kuona kagwiritsidwe ntchito kake ka mankhwala a zitsambawa pakati pa anthu omwe ali ndi kachirombo ka HIV, kuunikanso ngati kagwiritsidwe ntchito ka mankhwala a zitsambawa kali ndi kuthekela kosokoneza kamwedwe ka mankhwala a ma ARV komanso kufuna kudziwa zimene zimapangitsa anthu omwe ali ndi kachirombo ka HIV kugwiritsa ntchito mankhwala a zitsambawa. Musanapange chiganizo chotenga nawo mbali mukafukufukuyu, muli ndi ufulu ofunsa aliyense amene mudzamasuka naye zokhuzana ndi kafukufukuyu. Muchikalatamu mukhoza kukhala mawu amene simukuwamvetsetsa, khalani omasuka

kundifunsa ndipo ndidzakhala ndi nthawi yokufotokozelani kuti mumvetsetse. Ngati muli ndi mafunso mkatikati mwakucheza kwathu mukhoza kundiyimitsa nthawi iliyonse kuti ndikufotokozeleni bwino lomwe. Ndizakhala osangalala ngati mungatengepo nawo gawo pakafukufukuyu. Kucheza kwathu kudzajambulidwa ndichojambulira mawu okha ndipo zokambirana zathu zonse zomwe zidzajambulidwa zizasungidwa mwachinsinsi ndithu. Dziwani kuti palibe aliyense amene adzakhala ndi kuthekera kulikonse kowona zokambilana zathuzi kupatula ofufuza okha basi.

Dzina lanu silidzatengedwa. Mafunso ena ndiofunika kuti mumasuke ndithu koma muli ndi ufulu oyankha ma funso omwe mudzakhala omasuka kutero. Muntha kutuluka mukafukufukuyu nthawi ina iliyonse mutafuna. Kutengera kufunika kwa kafukufukuyu pa miyoyo ya anthu omwe ali ndi kachirombo ka HIV mu gawo limene tili kufufuzali, tizasangalala mutatenganawo mbali ndithu.

Zikomo

Chivomelezo chaperekedwa: Eya_____ Ayi_____

Posayina otenganawo mbali:_____

Chidindo Chachala:……

Posayina ochitira umboni:_____

Ngati pali chofunsa kapena vuto imbani: Thokozani Noniwa…….. +265999434301

COMREC……... +265187191 Ext 334

Zikomo potengana wo mbali

Appendix 3: Participant Information Sheet, English Version

Study Title: An Exploration of the Relationship Between Herbal Medicine Use and Antiretro Viral Therapy Adherence among People Living with HIV in Blantyre, Malawi.

Investigator: Thokozani Noniwa

I am a Master of Public Health student in final year at the University of Malawi, College of Medicine. I am conducting this study to explore the relationship between herbal medicine use and ART adherence among People Living with HIV in Blantyre as part of academic requirement for the fulfillment of the Master of Public Health Program. I will conduct in depth interviews with HIV patients at this facility.

What you need to do for this study?

If you decide to participate in the study, you will be required to answer some questions which will be audio recorded and written.

How will your privacy be maintained?

I will be the only person to gain access to your personal details and all the recorded information will be kept safe. Unique study identification numbers will be used instead of names. After the study, your records will be destroyed.

Voluntary Participation and your right to refuse

Participation into this study is voluntary. You have the right to withdraw from the study at any point if you wish to do so without being penalized, however, your participation into this study is very important as your responses will assist in improving ART adherence and HIV patient survival in this era of increased access to ART.

Are there any risks involved in the study?

There are no known risks in taking part into this study that I am aware of.

Whom to contact if you have any questions about the study?

Thokozani Noniwa

Queen Elizabeth Central Hospital

P O Box 95, Blantyre

Cell: 0881148171/ 0999434301 or

Dr Eric Umar

University of Malawi, College of Medicine

P/Bag 360, Chichiri

Blantyre 3.

Cell: 0992077919

You can also visit me at Queen Elizabeth Central Hospital Main Laboratory

Who has given permission for me to go ahead with the study?

The College of Medicine Research and Ethics Committee and Blantyre District Health Office. If you have any worries or queries, contact the Chairperson of the Research and Ethics Committee, College of Medicine, P.O Box 360, Chichiri, Blantyre3 or you can call using telephone number

01871911, extension No 334. You can also contact the Director of Health and Social Services at the Blantyre District Health Office, Telephone Number 0882002533.

Thank you

Thokozani Noniwa.

(Principle Investigator)

Appendix 4: Participant Information Sheet, Chichewa Version

Mutu wa kafukufuku:

Kafukufuku wofuna kuona ngati pali ubale pakati pa kugwiritsa ntchito mankhwala a zitsamba ndi kamwedwe ka mankhwala a ma ARV pakati anthu omwe ali ndi kachirombo ka HIV ku Blantyre, Malawi

Wofufuza: Thokozani Noniwa

Ndine mwana wasukulu yaukachenjede ya zachipatala (College of Medicine). Ngati mbali imodzi yofunika kukwanilitsa maphunziro anga ndikupanga kafukufukuyu ndicholinga chofuna kuona ngati pali ubale pakati pa kugwiritsa ntchito mankhwala a zitsamba ndi kamwedwe ka mankhwala a ma ARV pakati anthu omwe ali ndi kachirombo ka HIV ku Blantyre. Ndikhala ndi kufunsa manfunso angapo ndithu kwa anthu amene ali ndi kachirombo ka HIV kuchipatala kuno.

Zofunika zimene mungapange mukafukufukuyu

Ngati mutalola kutenga nawo gawo mukafukufukuyu mudzafunsidwa kupereka uthenga wokhudzana ndiinu monga zaka zanu, nthawi imene mwankhala muli kumwa mankhwala a ma ARV ndi zina zochepa. Mudzafunsidwa mafunso angapo ndithu panokha ndipo mayankho ake azajambulidwa kapena kulembedwa.

Kusunga chinsisi chanu

Ine ndidzasunga chinsisi chazonse zimene mudzandiuze kwaine ndekha mwini. Sikofunika kuti mutiwuze dzina lanu. Tigwiritsa ntchito manambala wosati maina kuti tikusungileni chinsisi. Kafukufukuyu akatha, uthenga wokudzana ndiinu udzawonongedwa kuti wina aliyence asadzaone.

Ufulu wanu kulola kapena kusalola kutenga nawo gawo mukafukufuku

Kutenga gawo mukafukufukuyu ndikosakakamiza. Muli ndiufulu kusapitiliza ndikafukufuku panthawi ina ili yonse pamene mwafuna kutero ndipo simudzayimbidwa mlandu uli wonse ayi. Komabe zindikirani kuti kutenga gawo kwanu mukafukufukuyu ndikofunika kwambiri chifukwa maganinzo anu azathandiza kupititsa patsogolo miyoyo ya anthu amene ali ndi kachirombo ka HIV.

Pali zovuta zina zilizonse zokhudzana ndikafukufukuyu?

Palibe zovuta zina zilizonse zokhudzana ndi kafukufukuyu zomwe ine ndikuziziwa.

Anthu amene mungathe kuwafunsa china chili chonse chokhudzana ndi kafukufukuyu.

Thokozani Noniwa

Queen Elizabeth Central Hospital

P O Box 95 Blantyre

Cell: 0881148171/0999434301 Kapena

Dr Eric Umar

University of Malawi, College of Medicine

P/Bag 360, Chichiri

Blantyre 3.

Cell: 0992077919

Mukhonzaso kundipeza ine ku Laboratory yayikulu ya kuchipatala cha boma ku Queen Elizabeth Central Hospital.

Amene wapereka chivomerezo kuti kafukufukuyu achitike

Kominti yowona za kafukufu ya College of Medicine Research and Ethics (COMREC)

Komanso Bwana wamkulu woona za umoyo mu boma lino la Blantyre.

Ngati muli ndimadandawulo, yankhulani ndi wa pa mpando wa komiti yayang,anira za kafukufuku ku sukulu ya madotolo ya College of Medicine, Bokosi nambala 360, Chichiri, Blantyre 3, kapena imbani tenifolo pogwilitsa ntchito nambala iyi 01871911, ndipo auzeni kuti akulumikizitseni ku nambala iyi; 334. Muthanso kupita ndikukadandaula kwanu ku ofesi ya Bwana wamkulu owona za umoyo mu boma lino la Blantyre, kapena apezeni panambala iyi; 0882002533.

Zikomo

Thokozani Noniwa

(Mtsogoleri wa kafukufuku)

Appendix 5: Demographic Questionnaire

An Exploration of the Relationship Between Herbal Medicine Use and Antiretro Viral Therapy Adherence among People Living with HIV in Blantyre, Malawi.

1. Age ……..years

2. Sex Male [ ] Female [ ]

3. Marital Status

[a] Married [ ]

[b] Single [ ]

[c] Widowed [ ]

[d] Divorced [ ]

4. What is the highest educational qualification you attained?

University [ ]

Secondary [ ]

Primary [ ]

None [ ]

5. What is your occupation……..

6. Religion…… ……..

7. Length on ART ……

Appendix 6: Demographic Questionnaire – Chichewa Version

Kafukufuku Wofuna Kuona Ngati Pali Ubale Pakati pa Kugwiritsa Ntchito Mankhwala a Zitsamba ndi Kamwedwe ka Mankhwala a ma ARV Pakati Anthu Omwe ali ndi Kachirombo ka HIV ku Blantyre, Malawi

1. Zaka zanu zakubadwa ……. years
2. Mkazi [ ] Mwamuna [ ]
3. Banja

[a] Wokwatira [ ]

[b] Wosakwatira [ ]

[c] Banja lidatha [ ]

[d] Wamasiye [ ]

4. Maphuziro anu

[a] Yunivesite/Koleji [ ]

[b] Sekondale [ ]

[c] Pulaimale [ ]

[d] Osaphunzira [ ]

5. Mumatani pamoyo wanu? ……..
6. Chipembenzo chanu …… …….
7. Nthawi imene mwakhala mukumwa mankhwala a ma ARV…….

Appendix 7: In-Depth Interview Guiding Questions

Patient Questions

1. What has been your experience being on ART? (probe: side effects; burden; defaulting)
2. How would you describe the success for use of ART treatment in your life?
3. Are their times when you found using ART challenging?
4. Many people use alternative medicines either alongside ART or independently, what has been your experience in using alternative medicines? (probe: type of medicines, used alongside or independently)
5. What do you know about herbal medicine? (Probe: efficacy, contraindications)
6. Have you ever been told about herbal medicine use at the ART clinic?
7. Have you ever used herbal medicine while on ART medication?
8. What prompted you to start using herbal medicine?
9. How were you using herbal medicine considering that you are on ART medication?
10. While using the herbal medicines were there times that you interrupted or stopped your ART medication?
11. How long did it happen? Why?
12. Were there any changes that you noticed yourself as a person relating to the use of these herbal medicines?
13. What would you say is the extent of use of herbal medicine among HIV patients on ART?
14. Is there anything you would recommend to anyone wanting to use herbal medicine while on ART?
15. What else would you like to share with us about herbal medicine use and ART adherence among HIV patients

Appendix 8: In-depth Interview Guiding Questions – Chichewa version

Kafukufuku Wofuna Kuona Ngati Pali Ubale Pakati pa Kugwiritsa Ntchito Mankhwala a Zitsamba ndi Kamwedwe ka Mankhwala a ma ARV Pakati pa Anthu omwe ali ndi Kachirombo ka HIV ku Blantyre, Malawi

Mafunso a munthu odwala

1 Zomwe mwakumana nazo ku kamwedwe ka mankhwala otalikitsa moyo a matenda a Edzi ndi zotani? (funsani mwakuya kumbali ya zotsatira zosakhala bwino za mankhwala, chiphinjo pa kamwedwe; kusiya kapena kudumphitsa)

2 Mungafotokeze bwanji za chipambano pogwiritsa ntchito mankhwala otalikitsa moyo m'moyo wanu?

3 Zilipo nthawi zomwe munakumana ndi zophinja pogwiritsa ntchito mankhwala otalikitsa moyo a ma ARV?

4 Anthu ena amagwiritsa ntchito mankhwala ena otalikitsa moyo mwina paokha kapena limodzi ndi ma ARV, inuyo mwakumana ndi zotani pakugwiritsa ntchito mankhwala oonjezera? (funsani mozama: mitundu ya mankhwala yomwe amaphatikiza ndi mankhwala oonjezera moyo kapena omwe amagwiritsa paokha)

5 Mumadziwa zotani zokhuza mankhwala a zitsamba? (fufuzani mozama: kagwiridwe ka ntchito kumbali yochiritsa; zovuta zamankhwalawo))

6 Munauzidwapo za mankhwala a zitsamba ku chipatala cha mankhwala otalikitsa moyo a ma ARV?

7 Munagwiritsapo mankhwala a zitsamba muli pa mankhwala oonjezera moyo ku matenda a Edzi?

8 Chinakuchititsani ndi chani kuti muyambe kumwa mankhwala a zitsamba?

9 Mumagwiritsa ntchito bwanji mankhwala a zitsamba po zindikira kuti muli pa mankhwala otalikitsa moyo ku matenda a Edzi?

10 Panali nthawi ina yomwe munasiya kumwa mankhwala otalikitsa moyo a ma ARV kapena kudukiza chifukwa mukumwa mankhwala a zitsamba?

11 Zinachitika nthawi yaitali bwanji? Chifukwa?

12 Pali kusintha kwina kulikonse komwe munakuona pogwirizana ndi kugwiritsa ntchito mankhwala a zitsamba?

13 Mungathe kunena kuti mankhwala a zitsamba akugwiritsidwa ntchito mochuluka bwanji kwa anthu amene ali ndi kachirombo koyambitsa matenda a Edzi?

14 Ndi chani chilichonse chomwe mungayamikire kwa munthu yemwe akufuna kugwiritsa ntchito mankhwala a zitsamba ali pa mankwala otalikitsa moyo ku matenda a Edzi?

15 Ndi zina ziti zomwe mungakonde mutagawana nafe zokhuzana ndi kugwiritsa ntchito mankhwala a zitsamba ndi kamwedwe kokhulupirika ka mankhwala otalikitsa moyo kumatenda a Edzi kwa omwe ali okhuzidwa?

Appendix 9: Permission Letter from the DHO

Telephone: Blantyre 0 1875332 / 01 877 401
Fax: 01 875 430 / 01 872 551

Communication should be addressed to:
The District Health Officer
The Director of Health and Social Services
0882002533 : gkawalazira@yahoo.co.uk

In reply please quote No. .....

DISTRICT HEALTH OFFICE
P/BAG 66
BLANTYRE
MALAWI

Ref.No. BTDHO/ADMIN/9

27th September, 2018

The Chairperson,
COMREC,
Private Bag 360,
Chichiri Blantyre 3.

Dear Sir,

RE: AN EXPLORATION OF THE RELATIONSHIP BETWEEN HERBAL MEDICINE USE AND ART ADHERENCE AMONG HIV PATIENTS IN BLANTYRE

We are writing in support of the above named study that it can take place at the selected health care facilities within Blantyre District as planned. It will be a Cross Sectional Qualitative study aiming at exploring the relationship between herbal medicine use and ART adherence among HIV patients.

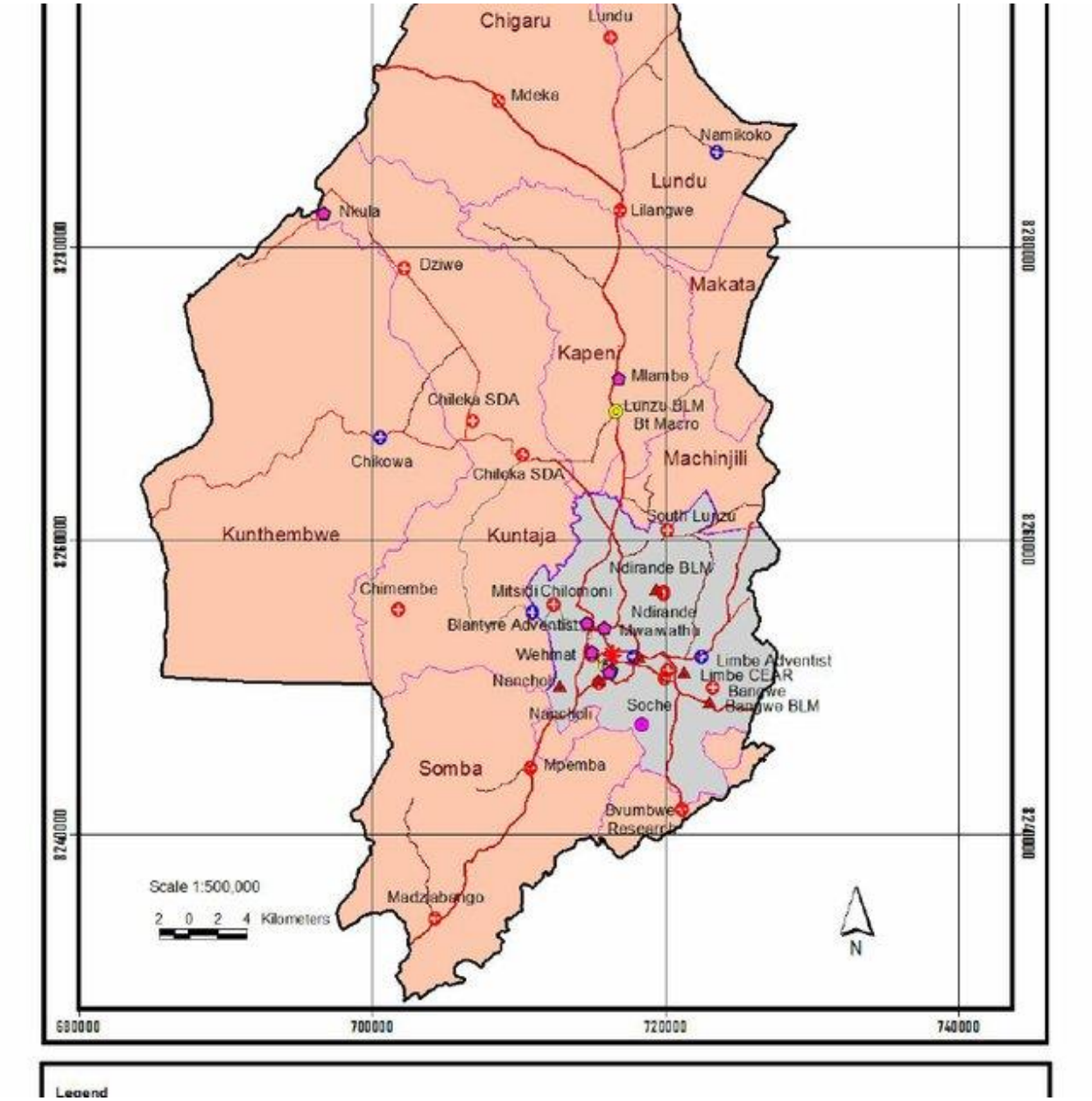
We hope that the findings from this study will inform us as relevant stake holders on the extent to which HIV patients are using these herbal medicines so that proper measures can be put in place to control the use of herbal medicines within this population as interrupts with ART medication.

Yours Faithfully,

District Health Officer
Private Bag 66
Blantyre

Dr. Gift Kawalazira
DIRECTOR OF HEALTH AND SOCIAL SERVICES

Appendix 10: Map of study area



Appendix 11: Certificate of ethical approval

CERTIFICATE OF ETHICS APPROVAL

This is to certify that the College of Medicine Research and Ethics Committee (COMREC) has reviewed and approved a study entitled:

P.11/18/2550 - An Exploration of the Relationship Between Herbal Medicine Use and ART Adherence Among HIV Patients in Blantyre. Version 2.0 by Thokozani Noniwa

On 07-Mar-19

As you proceed with the implementation of your study, we would like you to adhere to international ethical guidelines, national guidelines and all requirements by COMREC some of which are indicated on the ... for your study

Dr YB Mlombe - Chairperson (COMREC)

07-Mar-19

Date

Approved by College of Medicine 07 MAR 2019 (COMREC) Research and Ethics Committee

Appendix 12: Study Gantt Chart

Activity	Months									
	Sept'18	**Oct'18**	**Nov'18**	**Dec'18**	**Jan'18**	**Feb'19**	**Mar'19**	**Apr'19**	**May'19**	**Jun'19 - Aug'19**
Proposal Development										
Ethics committee: approvals/renewals										
Training RA's										
In depth Interviews										
Data transcription										
Data translation										
Data cleaning										
Data analysis										
Report writing and dissemination										