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**TOPIC: An extensive inspection of barricades being faced by adolescents grappling with HIV/AIDS in compliance with Antiretroviral Therapy, concurrently proposing effective approaches to mitigate these challenges: A Perspective of Healthcare suppliers in Zimbabwe.**

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## Abstract

### **Introduction**

*Anti-retroviral therapy (ART) has helped to somewhat lower mortality rates across all age categories in Zimbabwe, but tragically, ALHIV mortality rates have remained stable. Since ALHIV had lower compliance to ART and greater mortality rates than the general population, non-compliance to ART among this population is a significant threat to the public's health. This perplexing increase in ALHIV mortality calls for research into the difficulties that young people in Zimbabwe living with HIV face in sustaining ART compliance. This study aims to assess the therapy compliance hurdles among ALHIV living in Zimbabwe in order to give effective and efficient strategies for improving ART compliance.*

### **Methodology**

*Ten in-person, partially structured, comprehensive interviews were conducted as part of an evocative qualitative study to attempt and understand where this occurrence came from. Data were gathered from healthcare workers (4 counsellors, 4 nurses, and 2 doctors) employed at the Chitungwiza Central Hospital in Zimbabwe, which is situated about 30 km to the southeast of the capital city of Harare. Four themes emerged as a result of thematic analysis after the data had been investigated utilising an interpretive framework and an inductive technique.*

### **Results**

*As a result, the four themes identified—social, medical sector, medication, and individual—depicted the hurdles to therapy compliance among ALHIV. Data analysis and result interpretation showed that, in addition to each barrier producing inability to comply to therapy on its own, there is an interpersonal relationship among the obstacles, where one barrier causes the emergence of other barricades. The most varied and pervasive barrier among those identified is the social one, which serves as the catalyst for all others.*

### **Conclusion**

*Social constraints appear as the most significant obstacles to ALHIV compliance to ART on a range of levels, according to the inter- and within-relationship framework produced via this research. Social obstacles need to be removed in order to prevent the further escalation of*

*other barriers. In order to improve ALHIV's commitment to ART, the offered strategies also aid in shaping future research paths.*

## DECLARATION

I assert that “*An extensive inspection of barricades being faced by adolescents grappling with HIV/AIDS in adhering to Antiretroviral Therapy, concurrently proposing effective approaches to mitigate these challenges*” is my work, has not been submitted for credit towards a degree or assessment at another institution of higher learning, and that all references to sources are listed in the references section and cited in the text.



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## Abbreviations and Acronyms

SSA	Sub-Saharan Africa
HIV	Human Immunodeficiency Virus
ALHIV	Adolescents Living with HIV
AIDS	Acquired Immunodeficiency Syndrome
ART	Anti-retroviral Therapy
PLWHIV	People Living with HIV
ARV	Anti-retro Viral
FDA	Food and Drug Administration
UNAIDS	Joint United Nations Programme on HIV and AIDS
WHO	World Health Organization
IAS	International AIDS Society
SDG	Sustainable Development Goals
CDC	Centres for Disease Control and Prevention
PIS	Participant Information Sheet
TA	Thematic Analysis
ODD	Once Daily Dosing
FDC	Fixed-Dose Combination
ADR	Adverse Drug Reaction

## Functional Definitions

Between the ages of 10 and 19, a person is considered an adolescent as they transition from being a kid to an adult.

ALHIV: Adolescents with human immunodeficiency virus (ALHIV) include those who were infected during pregnancy and those who contracted it through sexual activity.

Anti-retroviral therapy (ART) is the daily administration of a cocktail of anti-HIV drugs.

According to Nayikemba (2019), compliance is defined as taking medication consistently and as directed by a healthcare professional at least 95% of the time.

Non-compliance: The inability to adhere to therapy regimens, such as taking drugs at the appointed times and on the scheduled schedules.

Healthcare professionals: Staff members who have experience treating and caring for young people living with HIV, such as HIV counsellors, nurses, and doctors.

Barriers to therapy compliance: Therapy compliance barriers are obstacles that patients face when trying to adhere to their ART regimen.

Strategies that work: Those created with the intention of increasing ALHIV therapy compliance.

The term Acquired Immune Deficiency Syndrome (AIDS) refers to a condition where the immune system becomes less effective as a result of the HIV virus.

Antiretroviral drugs (ARVs) are pharmaceuticals that can be administered to patients with HIV/AIDS to extend their quality of life. They strengthen the immune system, delay the onset of AIDS from HIV, and lower opportunistic infections.

AIDS is brought on by the Human Immunodeficiency Virus (HIV) (Jackson, 2020).

People who have been diagnosed with HIV and AIDS are those who are carrying the virus; they can be in any stage of the HIV spectrum, from one to five.

# CHAPTER 1: INTRODUCTION

## 1.0 Background of the study

One of humanity's most dreadful chronic diseases is the Human Immunodeficiency Virus (HIV). Unfortunately, there is no cure for the HIV/AIDS condition, and it still threatens human life. HIV remains a pandemic and a major public health issue worldwide. By eliminating CD4 cells, a subset of immune system cells that coordinates the immune system's reaction by igniting additional lymphocytes like macrophages and B lymphocytes, and CD8+ cells in order to fend off infections, the lethal virus weakens the body's natural defences and targets the body. As a result, the fatal virus has affected and continues to affect a high number of adolescents every year across the globe. According to research conducted by UNICEF (2018), It was estimated that 2 million adolescents had HIV between the ages of 10 and 19 in the world in 2014. Of these, 1.6 million (or 82%) reside in sub-Saharan Africa. Furthermore, according to statistics from the Chitungwiza municipal office, numerous adolescents with HIV/AIDS were started on ART in December 2020; however, less than half of those adolescents continued to take their medication.

### 1.1.1 HIV Global Epidemic

Because there is currently neither a therapy for HIV/AIDS nor a vaccine that is effective, it differs from earlier pandemics that have affected the human race. According to UNAIDS (2016), there are 26.2 million people worldwide who are HIV positive. Sub-Saharan Africa is home to 67% of all HIV-positive people worldwide. Additionally, millions of adolescents grappling with HIV/AIDS around the world are at increased risk for poverty, homelessness, dropping out of school, discrimination, and lost opportunities, according to UNICEF (2018). According to WHO (2018), adolescents still struggle with compliance issues, particularly in Africa because of issues including poverty and discrimination. Attempts to reduce HIV/AIDS infection and its effects, particularly in developing nations, have been minimal to nonexistent. Adolescents grappling with HIV/AIDS have been offered free antiretroviral therapy, yet many still struggle with compliance issues.

It is pertinent to remember that poor institutional services have been the root cause of compliance problems. Poor compliance in Zimbabwe, Skovdal, Campbell, Nyamukapa, Madanhire, and Gregson (2019) state that it is a result of inadequate institutional services. As

a result, since some locations, such as rural areas, have few or no hospitals, subpar services serve as a driving force for more adolescents to break their therapy regimens. However, there have been improvements in service delivery. For instance, the Ministry of Health and Adolescent Care established an E-health plan in an effort to enhance service delivery. As a result, persons with HIV/AIDS can now get their medications at any hospital. This implies that there are additional problems preventing adolescents afflicted with HIV/AIDS from using ART.

### 1.1.2 HIV Prevalence in Zimbabwe

Approximately 24% of youths in Zimbabwe had HIV in 2014, as reported to the Zimbabwe National Statistics Agency (2016). Approximately 69,000 adolescents were initiated on ART in public health institutions in 2015, according to estimates from the Ministry of Health and Child Care (2016). However, adolescent HIV-related mortality in Zimbabwe is remains significant despite the general drop in HIV incidence and death. According to the Ministry of Health and Child Care (2014), from 300 in 2009 to 950 in 2010, there were three times as many HIV-positive young persons who died while receiving ART. In 2015, over 1 500 adolescents lost their lives to HIV-related illnesses. Therefore, the rate of adolescent mortality due to HIV in Zimbabwe is increasing despite a drop in overall HIV prevalence and death.

In accordance with the Zimbabwe Public Based HIV Impact Evaluation ZIMPHIA (2016), the primary causes of adolescents' mortality include delayed ART initiation, non-initiation of ART, poor therapy compliance, and low care retention. The utilisation of HIV services and compliance to therapies by young people living with HIV are affected by a variety of psychological as well as social variables (Maskew et al., 2016). Deprivation, stigma, delayed openness, inadequate information and therapy, loss and mourning, depression, therapy tiredness, a lack of encouragement at home, and some characteristics of the medical sector are among these variables, according to Maskew et al. (2016). Additionally, young persons who reside in rural locations are disproportionately affected by these problems when compared to their peers in metropolitan areas.

### 1.1.3 Significance of Anti-retroviral therapy

Aside from the obvious advantages of ART, or among the many benefits of HIV therapy and oversight are a decrease in death and illness triggered by HIV, which increases the life expectancy of PLWHIV and improves quality of life (Oguntibeju, 2012). PLWHIV are able to

lead lifestyles that are close to normal thanks to the reduction in viral load (i.e., ART has reduced the amount of HIV in a specimen of blood, (Danforth, Granich, Wiedeman, 2017; Cohen, Smith, 2013). As a result, it also slows the progression of the sickness (Ross, Ying R. 2018) and lessens the likelihood that the virus will spread. A significant amount of evidence suggests that, as a precondition, achieving the advantages of ART is dependent on almost perfect compliance to therapy (Iacob, Iacob, Jugulete. 2017).

Non-compliance to Anti-retroviral therapy is another undisputed indicator of HIV deteriorating into AIDS and ultimately mortality, in addition to the count of CD4 lymphocytes (test to determine the number of CD4 lymphocytes within a blood specimen; suggestive of patients' immune system performance and reaction to ART) (Bangsberg DR, Perry. 2001). Although many other illness conditions also require it, compliance with HIV therapy is particularly crucial because of the numerous negative effects that result from not taking it, i.e. ART. Despite the fact that there are many pharmaceuticals available for the therapy of HIV, patients must stick to their therapy plans and maintain that compliance over time in order for the medications to be effective (Schaecher, 2013). However, scientific research also documents the differences in therapy compliance between age groups (Jimmy, Jose. 2011). For example, in the case of HIV, ALHIV have been found to adhere to ART at much lower rates than the other age groups (Yang, Mphele, et al. 2018).

#### 1.1.4 Age, an impediment to compliance to ART

Adolescence presents significant physical and neurological problems making those in this age bracket the most prone to non-compliance with therapy. Age is an important determinant in therapy compliance. A vulnerable group of PLWHIV, adolescents with HIV have been found to adhere to therapy at much lower rates than other PLWHIV. Adolescent immune systems suffer as a result of non-compliance, which also increases teen mortality. Antiretroviral medications are essential because they improve immunity and lower the amount of viruses present. In line with UNICEF (2018), adolescent immune systems make HIV progression particularly quick. Adolescents who have HIV/AIDS would therefore experience an aggravation of the virus as a result of not taking their ART, leaving them even more vulnerable. As a result, this study details the difficulties adolescent HIV/AIDS patients have complying with ART.

## 1.2 Statement of the issue

In the majority of healthcare facilities, there is a noticeable discrepancy between the number of adolescents who genuinely adhere to ART and the number of adolescents grappling with HIV/AIDS who are started on ART. However, there is no factual support for the claim that adolescents taking ART do not adhere to it. In reality, both in industrialised and developing nations, several research on patient compliance to ART have been carried out. It should be noted that the majority of these researches are fairly Eurocentric; hence, the reasons for non-compliance may differ. Studies on ART compliance in Zimbabwe, particularly among adolescents afflicted with HIV/AIDS, are extremely rare. Takundwa (2019) conducted a study on the issues of non-compliance at three hospitals: Beatrice Infectious Diseases Hospital, Harare Central Hospital and Wilkins hospital. The canvasser found that there was a notably high prevalence of adolescent non-compliance to HIV/AIDS therapy. More prior to conception infected children are now surviving into adolescence thanks to advancements in ART's accessibility and effectiveness, which is fueling an increase in the proportion of youths living with HIV in Zimbabwe. According to Nabukeera-Barungi (2015), adolescents who contracted the infection during childbirth run the danger of being too exhausted to take their medication because they would have started therapy when they were still very young.

In the opinion of Nachege et al. (2006), adolescence is a time of high vulnerability since it is typified by a decline in parental support and supervision, a loss of inhibition, an increase in risk-taking conduct, and immature judgement. Adolescents living with HIV have attracted attention, according to the Ministry of Health (2016), since they constitute the only generation in Zimbabwe where HIV-related mortality is continuously rising. Therefore, the objective of this study is to assess the challenges adolescents grappling with HIV/AIDS face sticking to ART and to provide workable solutions to these issues.

## 1.3 Purpose of the study

This study seeks to identify barriers to ART compliance faced by adolescents afflicted with HIV/AIDS while also outlining practical solutions for these obstacles.

## 1.4 Research aims and objectives

Research objectives specifically identify the means by which the important concerns within the research are highlighted for the achievement of the study's objectives, as opposed to research goals, which refer to the reason for doing a study (Farrugia, Petrisor, Farrokhyar, and Bhandar, 2010). In light of the aforementioned context and in line with the 2017 investigation goals set by WHO and IAS for adolescents suffering due to HIV, the aim of this study is to "identify the hurdles to therapy compliance among adolescents diagnosed with HIV in Zimbabwe and establish successful tactics to mitigate these barriers."

This research has established the following goals in order to achieve the aforementioned ends:

- The opinions of the healthcare professionals will be used to obtain information on the causes of ALHIV in Zimbabwe's non-compliance to therapy.
- The obtained data will be rigorously reviewed and analysed to determine the most significant causes of therapy non-compliance of ALHIV.
- It will be suggested that effective measures be used to boost ALHIV commitment to HIV therapy.

## 1.5 Research inquiries

The following research inquiries were put out in order to address the study's research objectives:

- What obstacles do adolescents afflicted with HIV/AIDS come across in following their ART regimens?
- What prevents young people with HIV/AIDS from taking their medication?
- What are the answers to the problems of adolescent HIV/AIDS patients not taking their ART as prescribed?

## 1.6 Assumptions

This study's underlying premise is that: - There are numerous barriers to ART compliance for adolescents grappling with HIV/AIDS.

## 1.7 Significance of the study

The information gathered will have a significant impact on the literature that currently exists on the difficulties adolescents grappling with HIV/AIDS have in complying with ART. Many



earlier studies focused on the difficulties adults had complying with ART, and some of those studies are already outdated and primarily have a Eurocentric approach. Therefore, it is necessary to research the difficulties adolescents grappling with HIV/AIDS have sticking to ART. As a result, this research is extremely important because the results will further enhance the narrative that currently exists.

Because they are so important to ALHIV therapy compliance, the opinions of health care professionals solicited in the present investigation will aid in the development of successful ways to satisfy the research priorities outlined by the WHO (Mutambo C, Hlongwana. 2019). Additionally, the majority of compliance strategies now in use are geared towards adults, and the availability of evidence for ALHIV is considerably limited, identifying barriers to therapy compliance among ALHIV will make it easier to create interventions that are tailored to their needs. In order to improve health outcomes and lower healthcare costs, it is critical to develop interventional ways to increase therapy compliance among ALHIV, as shown by previous studies.

Due to the fact that this investigation aims to find ways to increase compliance to ART, it is crucial for adolescents afflicted with HIV/AIDS. Given some of the negative consequences of non-compliance emphasised in this study, such as the weakened immune system and death, non-compliance may actually help adolescents grappling with HIV/AIDS to stick to ART. As a result, the goal of this research is to enlighten adolescents grappling with HIV/AIDS about compliance problems and the benefits of sticking to ART.

Parents and the community, for example, will be able to understand the problems related to ART compliance thanks to the study's importance. Adolescents' biggest socialising influences are their families, thus this research may help parents or other family members understand how to support adolescents who are living with HIV/AIDS on compliance concerns and how to recognise problems with compliance to ART. The social labelling theory describes how the labels that society assigns to a person have an impact on that person. In order for young people to effectively adhere to ART, the community may be able to do so by using the study to do away with stigma and labels. This study is essential for achieving this objective because it may enable society to understand the value of ART and the significance of adolescents adhering to it.

## 1.8 Chapter summary

This chapter provides a lively and clear background on the topic at hand. The historical context of the study, the problem statement, the purpose of the study, the objectives of the investigation, the research inquiries, the assumptions of the study, and the importance of the study are all covered in this chapter.

## CHAPTER 2: LITERATURE REVIEW

### 2.1 Introduction

With a primary focus on the causes of adolescents' non-compliance with antiretroviral medications and methods to address these causes, this chapter presents and evaluates the literature of the study by examining both theoretical and pragmatic literature from experts and other investigators. Numerous studies have been conducted to understand why adolescent ART compliance is plummeting; yet, there is enough evidence to show that adolescent ART compliance problems still exist, particularly for those who have just started taking ART. As a result, this chapter presents an overview of the challenges faced by youths affected by HIV/AIDS, considers a number of points raised by other academics about the lack of adolescent commitment to ART, and evaluates ideas that served as the foundation for this study. These comprise Maslow's hierarchy of needs, the Behavioural Concept of medical service utilisation, the Sweat's along with Denison concept of HIV and AIDS Structural variables, utilisation of updated compliance papers obtained from reliable Websites, and research commentary gained from peer-reviewed journals are a few examples. Finally, this chapter supports the suitability of healthcare practitioners as the responders for this study. The global, regional, and local perspectives are taken into consideration in this literary analysis.

#### 2.1.1 Compliance to Antiretroviral Therapy

According to the World Health Organisation (2018), adolescence is defined as the period of growth and development that occurs between childhood and adulthood, and includes people between the ages of 10 and 19. Antiretroviral therapy (ART), according to the World Health Organisation (2018), is a drug that is frequently provided to people who are HIV positive. In order to suppress the virus and halt the development of AIDS, this therapy regimen consists of at least three antiretroviral (ARV) medications in various combinations. Although ART does not treat HIV, it can stop it from spreading and progressing to AIDS. According to Urquhart (2017), medication compliance refers to how closely a patient follows a doctor's orders for taking their medications. Since patients with chronic illnesses like HIV must take medication every day to maintain the repair of their immune systems, compliance rates are crucial. According to Machtiger and Bangsberg (2016), compliance rates to drugs for chronic diseases range from 50 to 75 percent. In order to attain viral load suppression, antiretroviral therapy compliance is also essential. To achieve complete and long-lasting viral suppression, ART

must be adhered to at least 95% of the time (Machtinger and Bangsberg 2016). As a result, maintaining ART compliance is one of the most efficient ways to stop HIV transmission because those with an undetectable viral load essentially have no chance of sexually transmitting HIV to HIV-negative partners. This level of devotion is only possible if individuals miss no more than three ARV medications each month. According to their San Francisco study, the viral load doubles with every 10% reduction in compliance.

In fact, maintaining ART compliance helps to dwindle the fatalities and illnesses associated with HIV. The World Health Organisation (2018) found a substantial correlation between HIV patient compliance and clinical outcomes as measured by laboratory markers such concentrations of CD4. Patients who reported 95-99% compliance at 6 months had a higher cell count of CD4 than the baseline of 205 cells/mm<sup>3</sup>, according to Gifford et al. (2020).

As a result, higher levels of compliance consequently decrease the chances of virological failure, drug resistance, and increase the likelihood of clinical success.

### 2.1.2 Magnitude of Compliance

Compliance can be gauged in an array of ways, including self-testing, attendance at clinic/hospital appointments, counting pills, and also pharmacy annals to specify how many pills were distributed.

### 2.1.3 Self testifying

By asking patients if they have missed any doses of medications in a certain number of days, and if so, how many, chemists can gauge patient compliance. 2020 (Chalker et al.). The World Health Organisation (2018) also argue that this approach can only be successful if the inquiry is routinely asked and recorded. Practically speaking, pharmacists may inquire about patients' compliance, but they do not consistently record the response. The recall period, which is 3 or 7 days, also applies to this process. Three indicators can be determined through self-testifying, according to Chalker et al. (2020), including the ratio of compliance for each patient, the percentage of patients with full compliance to ARV, and lastly, the percentage of ARV doses patients took throughout the test period.

### 2.1.4 Pharmacy annals

Long-term compliance can also be assessed using allocation measures of compliance (Chalker et al. 2020). This method calls for keeping track of how many days, like six months, the medication is given out. According to Chalker et al. (2020), using pharmacy records has the drawback of overestimating true compliance because patients may have gathered medication without properly consuming it.

### 2.1.5 Pill counts

Pill count is a measure that analyses a patient's actual and anticipated intake since the pharmacy last issued the prescription, according to the World Health Organisation (2019).

### 2.1.6 Hospital appointments attendance

Records of missing (or late) appointments provide information about therapy non-compliance and defaulters. According to Chalker et al. (2020), while delivering medications, the majority of nations typically store additional medication for 3 days. Health care professionals use this indicator to categorise patients into three groups, including those who miss appointments on the scheduled day, those who miss their initial appointment but show up within three days, and those who miss their appointment and do not return to the clinic within 30 days of the missed appointment (early defaulters).

These categories can aid in identifying therapy lapsed and the degree of patient compliance. However, the World Health Organisation (2009) warns that some people may obtain their prescription but not properly take it as prescribed by health care workers.

### 2.1.7 The viral burden estimation

The 2002 edition of the McGraw-Hill Concise Dictionary of Modern Medicine defines "viral load measurement" as the quantification of the number of replicas of the HIV virus per millilitre. A 2002 study by Paterson et al. found that up to 95% compliance is needed for HIV viral suppression. The study found an inverse relationship between viral burden and compliance, with the viral burden sharply increasing as compliance decreased. The investigation managed to conclude that a significant lowering of viral levels was associated with compliance levels that were higher.

## 2.2 Theoretical framework

Three theories served as the foundation for this research: Maslow's Hierarchy of Needs (1943), Sweat as well as Denison's Theory of HIV and AIDS Systemic variables, and the Behavioural Framework of Health Service Usage (Babitsch et al., 2012). The Behavioural Model of Health Service Use illustrates how social support, financial costs associated with ART, faith-related beliefs and cultural norms affect ART compliance among people living with HIV/AIDS (PLWHA). The model, however, was unable to take into consideration how stigma affected PLWHA's adherence to ART. To illustrate how stigma affects compliance with ART, Sweat and Denison's Model of HIV and AIDS Structural Factors was used. According to Maslow's theory of the hierarchy of needs, adolescents who lack access to fundamental necessities may not adhere to regulations. These ideologies allowed for the identification and distinction of the numerous elements influencing compliance among adolescents living with HIV.

### 2.2.1 Maslow's hierarchy of needs

It is crucial to understand that A psychological theory developed in 1943 called Maslow's Pyramid of Needs Theory seeks to explain human motivation. Maslow's theory of the hierarchy of needs is composed of five sets, and they are as follows: physical requirements; security; love; self-worth; and self-actualization. Maslow's theory is used to comprehend the difficulties in complying with ART that young people with HIV/AIDS confront. Maslow's hierarchy of wants employs psychological needs to investigate why adolescents grappling with HIV/AIDS don't adhere to therapy plans. This is because psychological needs contend that humans inherently seek for love and belonging. Adolescents in particular should have their psychological needs met.

Adolescents require love, so when they are subjected to stigma and discrimination, they become less confident in all they do. According to Barbie (2021), adolescents grappling with HIV/AIDS are prepared to open up to others once their psychological needs have been met. As a result, the current body of evidence confirms that one of the main obstacles preventing adolescents grappling with HIV/AIDS from complying with ART is restricted access to psychosocial support services. As a result, teens living with HIV/AIDS have a variety of psychosocial issues, necessitating the use of psychosocial support services like counselling and support groups to help them cope. Additionally, research by Garanganga (2019) and Mhaka-Mutepfa (2020) reveals that one challenge experienced by individuals afflicted with HIV/AIDS

in Zimbabwe is the inaccessibility of psychosocial support services. After that, adolescents with HIV/AIDS experience problems with insufficient professional support to assist them in coping with emotions like depression, blame, and rage after discovering their HIV status. As a result, non-compliance could occur if psychological demands are not met.

Additionally, eating is one of the psychological demands under the heading of survival needs in Maslow's hierarchy of needs. Therefore, it is crucial to keep in mind that according to studies conducted by numerous researchers, a shortage of food is one of the primary causes of non-compliance. According to research, adolescents who are HIV/AIDS positive should eat more nutrient-dense meals. According to AVERT (2019), adolescents with HIV should consume more food than normal adolescents in order to gain weight and develop like other adolescents. Going forward, a catastrophe could result from a lack of food because it is a basic necessity. Nyambira conducted study in 2019 and found that the majority of African adolescents fail to stick to ART because of a lack of food.

Therefore, a lack of food can often lead to malnutrition, stunted growth, and a slower rate of recovery from opportunistic diseases (Bosworth 2020). Due to the ongoing financial crisis, food deficiency is a problem in African nations, especially for those who hail from very impoverished homes. According to the Marxist viewpoint, there are various social classes in a society, such as the bourgeoisie, the elite, and the impoverished class. People from the lower classes suffer the most in places like Zimbabwe, especially young people who have HIV/AIDS. However, this could result in drug resistance in the patient and perhaps lead to recurrence. Maslow's hierarchy of wants goes on to illustrate how adolescents grappling with HIV/AIDS may fail to adhere to ART if their psychological and physical needs are not met.

### 2.2.2 The Behavioural Theory of Health Service Usage

Over 46 years have passed since the Behavioural Model of Health Service Use was first created (Andersen, 1995). It has since undergone extensive application, replication, and modification. This model was initially created with a family-level focus to describe how health services are used. The algorithm, however, was eventually modified to forecast how each individual will use medical services. This approach looks at how need, enabling, and predisposing variables affect how people use healthcare (Andersen, 1995). The model has been used to find factors that affect drug compliance (De Smett & Erickson, 2006). This model was utilised by Murray (2004) to research compliance factors in senior citizens in the Southeast of the United States.

Wekesa (2002) also utilised the approach to look into Western Kenya's compliance to prescribed medication. In Michigan, De Smet and Erickson (2006) examined self-reported compliance in asthma patients and found that it was moderately correlated with predisposing factors like health belief, enabling traits (such as the number of metered dose inhaler instructors), and perceived need (such as perceived severity of the disease).

The personal as well as contextual variables of the use of health services are both included in the Behavioural Theory of Health, a multi-layered framework (Andersen, 1995). It comprises three main parts, which are each detailed in turn. Predisposing factors are those that exist before a sickness and that affect a person's perceptions of using medical services. These include patient health views (attitudes, values, and knowledge), social factors (education, occupation, and ethnicity), and demographic features (age and gender). Resources that either encourage or prevent the use of health care are referred to as enabling factors. Personal factors (such as income and health insurance) and social support in the community are examples of these. The person's condition or impairment that makes the usage of medical services necessary are represented by need factors. These include the needs that are appraised (professional opinions regarding the patient's health status) and those that are perceived (perceptions of sickness) (Andersen, 1995). New components have been added to the model in more recent iterations to represent the part health care systems play in affecting access and retention. Early adopters of the notion of access, according to Ricketts and Goldsmith (2005), tried to develop global measures of access that were concerned with both process and results. Regular source of care, travel time to medical facilities, the ability to schedule an appointment in a reasonable amount of time, and in-office wait times are some examples of process indicators.

### 2.2.3. Sweat & Denison's Framework of HIV and AIDS Systemic Variables

The typological theoretical paradigm promoted by Sweat and Denison (1995) divides structural elements affecting HIV and AIDS into four levels: individual, environmental, structural, and super structural levels. This model defines individual factors as characteristics of an individual, environmental elements as those of an individual's environment and resources, and structural factors as those of existing laws, policies, and programmes. According to Giddens and Sutton (2013), structural elements are those that take place at the highest level and include sexism, racism, and economic underdevelopment. These have an impact on the micro political structures and national cultural standards. These elements also relate to the various stigmatisation levels. Giddens and Sutton's (2013) conceptualization of stigma identified



various layers of stigma, including organisational, familial, community, and self-stigma. Each stigma is distinct and may require a different approach to combat. He also asserts that these stigma processes are influenced by broader super-structural, structural, environmental, and individual elements rather than occurring in a context-free vacuum. These elements include politics, the economics, religion and spirituality, and gender.

## 2.3 Challenges faced by adolescents grappling with HIV/AIDS in compliance to ART

### 2.3.1. Global View

In accordance with Gelled (2021), the issue of non-compliance to Anti-retroviral therapy, particularly among adolescents afflicted with HIV/AIDS, has become a major global concern with detrimental effects on adolescents afflicted with HIV/AIDS, carers, health planners, business, and society. According to research conducted in ADDIS ABABA by Abelti, Eshet, and Abdissa, adolescents who refrain from compliance to ART are far more likely to develop drug resistance and experience therapy failure. According to Enriquez and Makinsey (2020), adolescents who do not follow ART guidelines frequently experience poor health outcomes, including higher rates of morbidity and mortality as a result of the course of their condition.

Additionally, a barrier to compliance to ART for adolescents afflicted with HIV/AIDS is the lack of information on ART. According to a Smith (2019) study conducted in the UK, a lack of knowledge about ART caused many adolescents living with HIV to put off starting therapy. Consequently, it is clear from the research described above, which was conducted in the UK, that adolescents grappling with HIV/AIDS are significantly affected by a lack of information, which results in non-compliance to Anti-retroviral therapy. However, it should be noted that more civil society organisations have been founded to address HIV/AIDS-related issues. These civil society organisations, including Population Services International Zimbabwe (PSI), were founded in order to address HIV/AIDS-related challenges. Thus, it is clear that more attempts have been made to spread information about HIV/AIDS, yet the problem of compliance persists. This opens the door for further investigation into additional obstacles preventing adolescents grappling with HIV/AIDS from taking their medication as prescribed.

### 2.3.2 Regional View

Nyambira executed a cross-sectional study in Kenya in 2019 with 300 participants to identify the variables impacting adolescent HIV/AIDS patients' non-compliance to Anti-retroviral therapy. The degree of education and stigma were factors that were strongly linked to non-compliance. This indicates that inadequate knowledge from the research studies considerably contributes to adolescents grappling with HIV/AIDS failing to adhere to ART. Although adolescents who are HIV-positive or AIDS-positive are now informed about the disease, issues are still present. In primary and secondary schools, for instance, Domboramwari Primary School in Epworth introduced the HIV and AIDS curriculum from Grade three classrooms up to Grade six, adolescents are regularly informed about HIV and AIDS. Therefore, the aspiration of this research is to identify the causes of adolescents' continued noncompliance with ART.

### 2.3.3 Local Overview

Numerous academics have also conducted studies on compliance in Zimbabwe. Although they have been attempting to learn about the worries that adults and adolescents grappling with HIV/AIDS confront, the issue of compliance is still a major issue. Adolescents with HIV and AIDS continue to have restricted access to food, according to a Harare-based study by Ruparanganda (2021) on the difficulties experienced by people living with the virus. This statement is largely accurate because Zimbabwe is experiencing economic hardship. In addition, recent studies in a number of developing nations (South Africa, Zambia, Zimbabwe, and Uganda) have shown that one issue faced by those living with HIV in developing nations is restricted availability to food.

Poor nutrition was found to be one of the primary obstacles to ART compliance for youth living with HIV/AIDS in the Ruparanganda study, which was conducted by Keatinge, Maruva, Miller, Bwakure, Foster, (2019). This study examined the clinical and community provision of medical attention and therapy for adolescents contaminated with the HIV/AIDS virus in Zimbabwe. Vambe (2019) also makes the assumption that carers frequently fail to provide adolescents grappling with HIV/AIDS with enough food on a daily basis. Additionally, despite the fact that it is well known that inadequate food access is a major barrier to adolescent compliance to ART, there have been improvements in food distribution. For instance, Non-Governmental Organisations (NGOs) are putting forth consistent effort by giving food hampers to vulnerable adolescents, but compliance issues are still prevalent. As a result, it is clear that there are several knowledge gaps that must be efficiently filled.

### 2.3.4 Zimbabwe HIV /AIDS Policy & the rights of adolescents grappling with HIV/AIDS

The 1999 Zimbabwe National HIV/AIDS Policy was revised in response to the numerous difficulties that individuals with HIV/AIDS faced, including stigmatisation and discrimination. As a result, Zimbabwe's HIV/AIDS policy offers a legislative framework for how those with HIV/AIDS ought to and should be treated. It is crucial to take into account that the following guiding principles—16, 25, 27, and 29—have to do with protecting the rights and needs of adolescents grappling with HIV/AIDS and ensuring their safety. In accordance with the 1999 Zimbabwe National HIV/AIDS Policy, basic rights comprise promoting the needs and rights of adolescents grappling with HIV/AIDS and providing counselling services to all HIV-positive individuals and access to information for HIV prevention is the most significant right.

These guiding principles were developed to shield young people and adults with HIV/AIDS from discrimination and stigma. The National AIDS Council also gets the AIDS levy, which is responsible for managing projects related to HIV/AIDS, such as educating the public. However, some of the money are being misused or corrupted, leading to their eventual exploitation for personal gain. Economic challenges also pose a barrier because more skilled employees leave Zimbabwe for other nations in search of better paying jobs, which lowers the amount that can be paid into Zimbabwe's AIDS levy. Therefore, it is the rationale behind civil society's intervention in Zimbabwe in an effort to address HIV/AIDS-related challenges. People are lectured about HIV/AIDS by civil organisations like Zichire, Family AIDS Caring Trust Zimbabwe (FACT), and PSI, to name a few. However, studies conducted in Zimbabwe have shown that adolescents grappling with HIV/AIDS are still failing to adhere to antiretroviral therapy (ART) despite all the efforts being made by civil society organisations.

### 2.4 Hypothetical basis on variables affecting compliance

Below is the theoretical foundation created by Gellad et al. (2019) to review connected aspects that influence adolescent medication compliance. The theoretical foundation is related to the Sweat & Denison's Theory of HIV and AIDS Structural Variables and the Behavioural Framework of Health Usage (Andersen, 1995), which were equally addressed earlier in this chapter. The theoretical foundation specifies elements that are personal, environmental, and structural and have an impact on ART compliance.

Demographics, cognitive function, comorbid illnesses, pharmaceutical features, and illness portrayal all have an impact on patient factors (Gellad et al., 2019). Health beliefs and disease awareness are among the factors that influence how people perceive illnesses. Memory, understanding, and mental well-being are all examples of cognitive function. Age, gender, ethnicity, health literacy (educational attainment level), and living circumstances are all considered demographics. Medical and mental health disorders, as well as alcohol and drug abuse and smoking, are all examples of coexisting sickness. The number of medications, intricacy of the regimen, and side effect profiles are examples of medication features. According to Gellad et al. (2019), variables affecting the health system include expenses, the fragmentation of care, a lack of resources, and patients' access to care. Factors related to the provider include things like the doctor-patient relationship, how much time is spent debating medications, and various issues with communication.

## 2.5 Impediments to compliance

The variables that affect compliance to ART can be divided into four categories: patient- or person-related, delivery of service, drug and disease-related features, and societal factors.

### 2.5.1 Person related factors

Elements including the desire to be well, acceptance, loneliness and depression, lack of understanding, and the fear of unintentional disclosure are examples of patient-related issues (Machtinger & Bangsberg, 2006).

#### 2.5.1.1 Desire to be healthy

The desire to be healthy can increase adolescents' compliance levels, according to a 2013 study in Rwanda by Mutwa et al. Adolescents were inspired to continue taking their medication by their personal experiences of health improvement, such as evidence of increased CD4 cells (immunological recovery). Adolescents thus felt empowered to maintain their medication compliance. According to Denison et al. (2015), the majority of adolescents who use ART do so because they do not want to get sick or pass away. In a research by Denison et al. (2015), the majority of the adolescents interviewed said they started receiving ART after suffering from a long illness and blamed ART for their improved health. Adolescents may be motivated to take their medication as directed out of a desire to stay healthy and live long.

### 2.5.1.2 Acceptance

According to research by Mutwa et al. (2013), adolescents living with HIV exhibit higher compliance when they feel accepted. According to the study's findings (Mutwa et al., 2013), when adolescents accept their situation, they develop a will to live and become more adamant. According to Nabukeera, Barungi et al. (2015), adolescents who had accepted their HIV status were more likely to attend clinic review appointments and come up with self-management strategies. According to Denison et al. (2015), adolescents are more likely to learn self-management skills when they accept their condition. Learning to store their own medications and setting alarms as reminders were two examples of self-management techniques. Adolescents who accept they have HIV can cultivate the will and use instruments like clocks to manage their disease and follow therapy regimens.

### 2.5.1.3 Isolation and depression

As reported by Mutwa et al. (2013), adolescents who do not embrace their HIV status may experience despair and social isolation. In turn, depression can make it difficult for people to take their medicine. Reynolds (1994) added to this by showing that depression and younger age were substantially associated with inability to sustain long-term compliance. Murphy et al. (2005) indicate that depressive illnesses and symptoms in adolescents are frequently misdiagnosed, leading to inadequate care. Compliance to HIV therapy is consequently made challenging by undiagnosed depression in young people.

### 2.5.1.4 Ignorance of HIV diagnosis and its management

According to research by Denison (2015), adolescents might not be conscious of their infection with HIV or the explanations for why they need to take medicine. According to MOHCC (2016), primary carers should notify children of their (the child's) HIV status, and medical professionals should assist them by offering counselling and health education to kids and teenagers. According to WHO (2018), late divulging of one's HIV among adolescents occurs in a variety of situations, depriving them of essential information about their health and resources for support. Adolescents consequently grow confused with respect to the purpose of applying ART. Based on the study by Denison (2015), the majority of adolescents are unaware of the justifications for taking their medications and would often throw these away, leading to

insufficient compliance. The ability of healthcare professionals to provide adolescents with health education sessions is further hampered by late disclosure. This hinders understanding of therapies and medication compliance.

#### 2.5.1.5 Dread of unintentional exposure

Unintentional disclosure is when someone unintentionally discloses their HIV status. Compliance to ART in adolescents is significantly influenced by the fear of unintentional disclosure. According to a study by Denison et al. (2015) in Zambia, the majority of adolescents opted to keep their HIV status a secret in order to avoid being stigmatised as positive for the virus and the ensuing prejudice. Adolescents' compliance to ART 16 was shown to be highly correlated with their desire to conceal their HIV status. This came about as a result of conflicting school and social activities that fell within home dosage periods. According to this study, adolescents chose not to take medication if doing so put them in danger of having friends and family notice them using it.

#### 2.5.2 Health system factors

Long travel times to medical facilities, a dearth of programmes specifically designed for adolescents, and inadequate health education are all aspects of service delivery that affect compliance.

##### 2.5.2.1 Lengthy commutes to health centres

Adolescents' travel distances to health care facilities are a factor that hinders medication collecting and, ultimately, compliance. According to WHO (2014), people should ideally be able to reach a health centre within a 5 km radius. Adolescents are concerned about the fact that people in less developed nations frequently travel distances of more than 10 kilometres. Adolescents and adults alike may avoid going to health amenities because of travel distances and high transportation costs. These barriers prevent adolescents from receiving HIV care and therapy in healthcare institutions, which results in missed clinic sessions and eventually poor drug compliance.

##### 2.5.2.2. Insufficient health education

Youth who received education from medical professionals on how to take ART drugs had increased compliance, according to a study by Filho (2008). This highlights the significance of health education resources in patient care as well as the significance of the patient-HCW connection in ensuring better compliance to ART. This is in line with the findings of Rueda et al. (2006), who showed that therapies aimed at enhancing the practical knowledge of how to take ART medications, like an HCW instructing the patients, were shown to enhance compliance. Even after correcting for poverty, hardship, and support, Kalichman et al. (2018) found that education and health literacy were independently linked with compliance.

### 2.5.2.3 Lack of specialised youth support services

Health facilities struggle to fulfil the special needs of adolescents as they age when there aren't enough resources. The competition for resources between adults and young children frequently outweighs the need to invest in programmes for supporting young people in the current financial context. Therefore, this age group runs the danger of becoming caught in the cracks of inadequately integrated medical sectors. The complex needs of adolescents are not expressly taught to healthcare professionals, and the majority of clinics lack established psychosocial support programmes for adolescents. As a result, the majority of adolescents lack the knowledge necessary to comprehend their situation, which has detrimental effects on their health.

### 2.5.3 Medication associated factors

Medication-related issues include the development of adverse reactions along with fatigue (Machtinger & Bangsberg, 2006).

#### 2.5.3.1 Side effects

Adolescents' adverse ARV reactions have been found to interfere with drug compliance. According to Maskew (2016), boys who take ARVs may have adverse effects such as nausea, vomiting, and swelling of the breasts, which may deter them from continuously taking their prescription.

#### 2.5.3.2 Therapy fatigue

Adolescents who admitted to getting tired of taking the drug were more likely to skip a clinic appointment and not stick with therapy, according to a research conducted in South Africa. In

addition, Amberbir et al. (2008) noted that adolescents find the daily obligation to take medications dull and taxing. These results were strengthened by MacDonell's (2013) claim that adolescents with perinatal infections skip medicine because they are tired of the therapy process, need a break, and think the medication is unpleasant and comes in huge doses.

## 2.5.4 Infection properties

### 2.5.4.1 Stages of infection

Adolescents diagnosed with HIV who are in the later stages of the disease are less likely to be adherent compared to those who are in the earlier stages of the disease, according to a research study conducted by Murphy (2005) in the USA. Their physical condition may make it tougher for their bodies to accept the side effects of medication, or it could be because they are depressed about the course of their illness and have lower expectations for how well the meds will work.

### 2.5.4.2 Mode of transference

According to a 2017 study by Xu et al. in Thailand, adolescents who contracted HIV during delivery are becoming recognised as a separate population with unique HIV medication compliance challenges. Youth who are infected from birth come across noticeably greater obstacles to ART compliance than their counterparts who are behaviourally infected. These challenges include a more complicated clinical trajectory, childhood struggles including parent(s) loss and unstable families, encounters with discrimination, and trauma from announcing their HIV status. They must additionally handle the change from paediatric to adult care as they become older, as well as the key period of independence from carers, which includes maintaining ART compliance.

## 2.5.5 Social factors

Social variables are elements of culture and larger living and societal structures that are outside the control of a person. These include stigma and privacy, religious convictions, social support, drug and alcohol usage, poverty, giving in to peer pressure, disclosing an adolescent's HIV status, and challenging social situations.



### 2.5.5.1 Stigma and privacy

Adolescents are discouraged from getting and using drugs because of stigma, both real and imagined. Adolescents may avoid travelling to the clinic to get their medicines because they do not want the community to see them, according to a 2013 study by Mutwa et al. Family members who were requested to pick up the medication frequently declined out of concern that they would be identified as HIV positive. Therefore, these dynamics have an impact on how long adolescents stay in care and, ultimately, how well they follow their therapy plans. Maskew et al. (2016) add that lack of privacy is another issue that affects many teens. Because they frequently reside in crowded homes, boarding schools, and foster care, this results in a lack of a private space to maintain and take their 19 medications. Even in their own homes, adolescents struggle with medication compliance due to social stigma since they don't want their friends, siblings, or other family members to see them taking their medications.

### 2.5.5.2 Religious beliefs

Giddens and Sutton (2013) define religion as a set of values and norms that serve as guidelines for how people should behave. Denison et al. (2018) discovered that adolescents in Zambia discontinued taking medication after being "declared healed" at churches. Another poll conducted in Tanzania yielded findings that 80.8% of respondents believed that prayer could cure HIV. These results were also supported by an article published in *The Sunday Mail* (2018), in which an adolescent living with the virus from the apostolic sect in Zimbabwe testified that her church refuses to embrace modern medicine and that she had witnessed peers perish from HIV as a result of their church leaders discouraging them from accessing HIV care and therapy services.

### 2.5.5.3 Social support

Adolescent compliance has been shown to improve with social support. According to Maskew et al. (2016), adolescents who lived with their mother as their primary carer were more likely than those who lived with secondary carers to attend all clinic visits and follow therapy instructions. The carers also serve as a further reminder to the adolescents to take their medication.

### 2.5.5.4 Drug abuse and alcohol consumption

Numerous studies show that alcoholism and drug misuse pose additional risks to appropriate antiretroviral therapy compliance. According to a study by Bernays et al. (2014), 40% of the patients polled admitted to skipping a dose of their prescription as a result of drinking. According to Mutwa et al. (2013), substance usage leads to intoxication, which has a detrimental effect on therapy compliance. Abuse of substances has a poor impact on psychological functioning, which leads to non-compliance.

#### 2.5.5.5 Poverty

Adolescents' capacity to adhere to medical advice has a substantial impact on what occurs outside of the clinic. According to Bernays et al. (2014), compliance to therapy can be challenging when there is a lack of food available for the adolescents. Due to poverty, the majority of households are unable to feed adolescents living with HIV enough food. In a research in Uganda by Nabukera-Burungi et al. (2015), adolescents claimed that they are hesitant to take the drug since they experience stomach ache when they take it on an empty stomach. Lack of transportation to go to medical institutions, especially in rural regions, makes this situation worse, and resulted in poor compliance to therapy.

#### 2.5.5.6 Succumbing to peer pressure

From the findings of Bernays et al. (2014), youngsters who live with HIV are often weaker and have delayed puberty. Adolescents frequently express a desire to fit in with their friends, which unintentionally causes them to quit following their therapy plan. Additionally, by labelling them as different from others due to their desire to conform to others, they may develop a strong sense of social isolation that places a significant psychological weight on them.

#### 2.5.5.7 Exposure of HIV status

The attitude and knowledge of the child's carers have an impact on the child's understanding of their HIV status and subsequent compliance. With sufficient support, it is anticipated that the progressive process of health care professionals first disclosing their HIV status to carers will eventually reach adolescents. According to Bernays et al. (2014), adolescents deal with their disease in secrecy and have poor or non-compliance to medicine as a result of the late and inadequate disclosure of their HIV status to them. Parents' quiet originates from the misguided belief that they are protecting their children, yet it causes adolescents to have a poor knowledge of their condition and the value of following their therapy plan.

### 2.5.5.8 Complex social circumstances

Since most adolescent patients contracted HIV by vertical transmission from mother to kid, it is a disease that affects entire families. Adolescents with HIV are more likely to become orphans and experience frequent guardianship changes. Due to a lack of family support, Bernays et al. (2014) observe that this leads to neglect, social isolation, and poor compliance. ALHIV find it challenging to manage their medical condition due to these confusing living situations and bereavement-related feelings.

## 2.6 Gaps left by existing research

The majority of the data that is currently available focuses on the difficulties that adult HIV/AIDS patients have complying with ART. Researchers like Clemeb, Stretel, Simbay, Wyk, Henda, and Nyeketo (2020) conducted study on the difficulties adults in South Africa have complying with ART. Numerous researchers in Zimbabwe also paid more attention to the difficulties adults with HIV/AIDS have in sticking to ART. Additionally, Gambingo in (2020) conducted a study to ascertain the association between partner support and zidovudine compliance among HIV-positive pregnant women attending the PMTCT clinic at Shurugwi Hospital. Therefore, the main focus of this study is on the difficulties that young people with HIV/AIDS have complying with ART.

Another urgent need is to use an Afrocentric lens to focus on the difficulties faced by adolescents afflicted with HIV/AIDS. One should be aware that numerous studies have been conducted in developed nations like the UK and Canada, but that emerging nations like Zimbabwe have different cultural and economic characteristics. Therefore, it is necessary to ascertain the challenges faced by adolescents afflicted with HIV/AIDS in following ART when using an Afro-centric methodology.

## 2.7 Healthcare professionals' prominence in therapy compliance

Adolescents' good compliance is supported by counsellors, nurses, and doctors who specialised in HIV care (Nasaba R, Tindyebwa, 2018). Health care professionals, notably doctors and nurses, are essential when it comes to pooling efforts to identify better ways to encourage ALHIV patients in taking care of oneself. Due to their substantial distinction, these healthcare professionals are able to identify each patient's barriers to care and take into account both the

cultural and personal characteristics of their patients. In addition, health care practitioners perform critical roles in HIV medical management and improve patients' quality of life as part of the multidisciplinary HIV team. Contrarily, counselling is a crucial component of HIV care that helps the most vulnerable ALHIV with challenges linked to compliance and daily life (Chippindale S, French. 2002).

In order to effectively treat ALHIV, these health care providers' knowledge is essential. Sadly, only a small number of research have examined healthcare professionals' perspectives while evaluating compliance to HIV therapy. The first health system representative, according to the literature, is a healthcare provider, who has a significant influence on how ALHIV is treated. The WHO defines therapy compliance as being committed to therapy by no professional other than a healthcare practitioner, who is a crucial part of the medical sector. According to the data, healthcare professionals' perspectives are particularly important for detecting challenges and offering fixes for adolescent HIV therapy compliance issues (Micheni M, Kombo, et al. 2014).

Additionally, studies demonstrate that healthcare professionals' experiences implementing HIV therapy compliance strategies will shed light on ways to enhance HIV care and strengthen the systems that surround adolescents in order to best support increased therapy compliance over time (Genberg B, Wachira, et al. 2019). From the perspective of healthcare professionals, this stresses the urgent need to design, test, and deploy therapies across ALHIV that are successful in enhancing HIV therapy compliance in order to ensure suppression of viral replication and lower adolescent HIV related deaths. Considering that due to their frequent interactions with them, healthcare professionals have the most in-depth awareness of HIV and ALHIV, their expertise and perspective can be very indispensable when advising strategies to boost therapy compliance (Inzaule SC, Hamers, et al. 2016).

## 2.8. Chapter Summary

The main academic discussions on the difficulties adolescents grappling with HIV/AIDS have complying with ART were examined in this chapter. The Behavioural Model of Health Service Use, Sweat and Denison's model of HIV and AIDS Structural Factors, and Maslow's Hierarchy of Needs Theory were three pertinent theories that were highlighted in the theoretical framework to shed light on the study's various aspects. The key causes of adolescents' non-compliance to Anti-retroviral therapy, which include social labelling, medicine expenses, stigmatisation, and religious views, are highlighted in the theoretical framework described in

this chapter. Studies conducted globally, regionally, and locally by other researchers were also highlighted to shed more insight on the difficulties adolescents grappling with HIV/AIDS encounter in complying with ART.

## CHAPTER 3: RESEARCH METHODOLOGY

### 3.0 Introduction

The research methodologies and the standards for their application are described in the current chapter. This study was conducted in Zimbabwe to point out challenges to compliance among adolescents surviving with HIV (ALHIV) suggesting measures for promoting compliance among this age group. It also covers the research philosophy and research design that were used in this study. The study population and sample size are also covered in this chapter. The systematic approach and methodology for gathering, processing, and evaluating data for the research are further explained in this chapter. The study's validity, reliability, and ethical considerations that were noted in this study are also highlighted in this chapter.

### 3.1 Study perspective

#### *The research model and methodology*

The first step of the approach is identifying the research paradigm as a means to accomplish the intent of this research. A paradigm is a comprehensive philosophical or ideological worldview and belief system regarding the nature of the world, according to Rubin HJ, Rubin IS. (2012) that, when applied to research, serves as the foundation for the assumptions that produce knowledge. The paradigmatic positioning of a researcher in the context of healthcare research explores understanding of the nature of knowledge (epistemological view) and reality (ontological view) (Vella-Burrows T, et al. 2019). A greater knowledge of phenomena in particular situations is the goal of the interpretivism paradigm (Pham L. 2018).

In an attempt to better understand the complex phenomenon of ART non-compliance for ALHIV, this research will adopt an interpretivism approach, demonstrating that the researcher will confirm the social construction of knowledge and the subjectivity of reality (Bunniss S, Kelly DR. 2010 and (Balka K. 2011). An inductive technique will be used to obtain qualitative data, as is typical of most qualitative research in terms of methodology. The inductive method enables the researcher to begin the study with the fewest preconceptions possible, establishing patterns that rely on theory and encouraging the development of theory from the emergent facts. assisting in identifying obstacles to compliance among ALHIV in Zimbabwe as a result.

## 3.2 Research methods

Goundar S. (2013) defined research methods as the accepted practises and strategies utilised to collect and assess data relevant to the study issue. Numerical as well as qualitative investigation approaches are both available. The problem is investigated using a naturalistic approach in the qualitative technique. through the associations and perspectives of the individuals, analyse and decode deeper meanings of events, the qualitative technique uses an interpretive approach (Aspers P, Corte U. 2019). Contrarily, the quantitative approach, according to Lucas-Alfieri (2015), works with numerical data by using statistical methods. The statistical HIV research conducted to date has been somewhat constrained in its capacity to impart community, structural, and individual level interventions and has fallen short of fully elucidating the contexts in which both risk and protective variables associated with HIV function (Lucas-Alfieri D. 2015).

### 3.2.1 Qualitative research in HIV

By merging the results of a qualitative study on HIV with the researchers' perceptions of the components, societal and cultural interpretations of sexual orientation, resiliency as well as general wellness can be created. Living with HIV enables the formation of nuanced descriptive interpretations that emphasise the political, socio-cultural, structural, and contextual aspects of the illness (Wilson, Valera, et al., 2016). To determine the reasons for ART non-compliance in ALHIV in Zimbabwe, the present research used the qualitative technique and was focused on the vulnerable HIV demographic of adolescents. It also suggested ways to encourage compliance.

## 3.3. Research setting

The precise location where data collecting actually occurs is known as a study environment (Polit & Beck, 2003). The study will be conducted at the Opportunistic Infections (O/I) Department at Chitungwiza Central Hospital, a government facility situated in Chitungwiza Town, roughly 30 km south-east of Harare City. It will take place at this facility because that is where adolescents go to pick up their ARV medicine and because that location also has the records of adolescents who have started taking ART. Additionally, this facility provides thorough HIV prevention, care, and therapy services. The referral hospital was the first to offer

free antiretroviral medication distribution in the area, so the hospital has a higher enrolment of adolescents living with HIV than other health facilities in the neighbourhood. This is another reason for conducting the research at this institution. Additionally, the hospital's catchment area spans the entirety of Mashonaland East Province as well as Chitungwiza town, nearby farms, Epworth, and other nearby communities.

### 3.3.1 Target population

Participants in this study were ALHIV-experienced medical professionals. Ten healthcare workers were hired, including four HIV counsellors, four nurses, and two doctors who dealt with ALHIV in various capacities (see Appendix for participant demographics). Since healthcare professionals have the most insight into the barriers to ART compliance in ALHIV, their insights into the occurrence of therapy non-compliance in ALHIV have been acquired in light of the research's goal in order to suggest useful strategies for improving therapy compliance. Counsellors, who work daily with adolescents and have the closest contact with ALHIV patients during counselling sessions, are the healthcare professionals who best understand the obstacles ALHIV patients have in adhering to their therapy regimens. While nurses are the main providers of HIV therapy and also oversee the majority of the hospitals and clinics in the nation, their everyday interactions with ALHIV increase their understanding of several elements of their care.

Medical practitioners in Zimbabwe's HIV care cascade deliver therapy by means of personal interactions with ALHIV and assist ALHIV's enhanced adherence to HIV medication through counselling and an understanding of the issues specific to adolescents. So, in descending order of their ALHIV expertise, the number of healthcare professionals included in the present investigation is a good indicator of their role in HIV therapy. According to Moucheraud, Stern, Ahearn, Ismail, Nyombi, and Ngonyani (2019), the bulk of studies examining ART compliance have emphasised patient viewpoints while ignoring the perspectives of healthcare personnel. Healthcare professionals, on the other hand, serve as the foundational elements of the healthcare sector and are the main channel of communication for ALHIV therapy. Having a close contact with ALHIV and serving as gatekeepers and facilitators of ALHIV, medical personnel provide the most appropriate sample to meet the objectives of this study. They also help shape adolescents' experiences with HIV therapy and care.



### 3.3.2 Sampling strategy

Including the most important study design phases, in the opinion of Guest, Namey, and Mitchell (2013), Sampling is the procedure of selecting a portion of a predetermined population with the aim of including them in the research study. Intentional sampling, the most popular sampling approach, was chosen because this research is qualitative in nature to comprehend and select individuals who gave a wealth of information (Patton, 2014). Purposeful sampling, as opposed to random sampling, entails selecting the informants who are most informed and experienced about the subject under study (Palinkas, Horwitz, et al. 2015). Additionally, the deliberate sampling method of maximal variation sampling was used to choose interview candidates. Through this method, a variety of perspectives and experiences from the participants who had access to a plethora of knowledge were gathered. Thus, volunteers for data collection were assigned and sampled. These participants included HIV counsellors, nurses, and doctors.

### 3.3.3 Research Instruments

The data gathering technique in this study included interviews that were partially structured. The comprehensive, in-person interviews were steered by partially organised interview guides. An introduction to the subject, a list of issues as well as inquiries, as well as recommended probes and assists for guiding the interview's dialogue through open-ended inquiries, are all included in a semi-structured interview guide (DeJonckheere M, Vaughn LM. 2019; Wilson C. 2014). See the annex for the interview guide used for the present research.

#### 3.3.4.1 Interview Etiquette

Unstructured discussions, according to Jamshed S. (2014), are in-depth interviews in which participants react to a number of open-ended inquiries. The semi-structured interview's open-ended framework allows for the thorough discernment of participant beliefs, thoughts, and experiences (DeJonckheere M, Vaughn LM. 2019). The most popular method of gathering data for healthcare research is unstructured discussions. These interviews use a flexible research procedure that is filled with follow-up inquiries, comments, and probes that are adjusted to the situation by using an interview guide. The research's goals and objectives, as well as its inductive methodology, were taken into consideration when developing the interview guide,

and a review of the literature also helped to develop suitable inquiries related to the main research subject.

As a consequence of conversations with the research supervisors, the manual for interviews was also modified and altered, helping to adapt the document to the needs of the matter being researched. The manual for interviews set the bar by focusing on the general perceptions of HIV in Zimbabwe and the experiences and opinions of healthcare professionals on HIV among adolescents. A neutral tone was used when asking and probing the participants to avoid swaying or biasing their opinions. All in-depth interviews were conducted using the funnelling technique, which involved asking introductory inquiries that led to the interview guide's main topic (Smith JA, Osborn M. 2015). The primary theme was introduced by the opening inquiries, which focused on issues pertaining to ALHIV therapy compliance in Zimbabwe and its unique characteristics with relation to therapy compliance. Further probing and asking about medication compliance concerns led to a range of responses that demonstrated and indicated reasons for ALHIV therapy non-compliance in Zimbabwe. These responses also helped identify areas where practical methods for boosting therapy compliance might be proposed.

#### 3.3.4.2 Study Duration and Interview Conduction

Given that this study was cross-sectional in design, like the majority of healthcare studies, interviews were used as a data gathering approach to understand participant experiences, (Grossoehme, Lipstein 2016). The principal canvasser spoke with the healthcare practitioners in-person for ten in-depth interviews from January to February 2023. The interviews took place in a private setting for 30 to 60 minutes so that the participants could express their opinions freely. The majority of the interviews was place in private, while those that took place at the hospital were done so in an area free of trespassers to prevent any interruptions. The Participant Information Sheet (PIS) (see Appendix) provided participants with thorough explanations of the research's goals, objectives, and method. Prior to conducting each interview, each participant provided written consent after being fully informed about the study's purpose and having all of their inquiries addressed (see Appendix). The research participants' personal information was treated with confidentiality at all times. In order to safeguard their identities, participants were also given codes to use while providing their reference quotations. To avoid unauthorised access, all data related to this study was kept on a password-protected computer.

### 3.3.4.3 Data saturation

The quantity of interviews to be done and the information they included were both under control thanks to data saturation, a renowned technique for stopping the collection of new data (Saunders, Sim, Kingstone, Baker, Waterfield, Bartlam et al. 2018). Data saturation is used in this study to determine the sample size of samples that were purposely collected. Data saturation, according to Francis, Johnston et al. (2010), concentrates on the amount of information provided, up until the halt of fresh data emergence, or informational redundancy. When no new information surfaced after the eighth interview, the researcher concluded that data collection had reached saturation. However, the researcher conducted two further interviews to support and validate the judgement that data exhaustion had been reached (Vandecasteele, Debyse et al. 2015). After data saturation, probing was also carried out until it was certain that a complete grasp of participant viewpoints had been attained (Ritchie, Lewis 2003).

## 3.4 Data Analysis

According to Hollowa (2005), conducting a thorough organisation of interview transcripts in order to better understand the phenomena of interest constitutes data analysis. It entails putting the data into categories and coding it, locating crucial elements and trends, and deriving conclusions from the data (Patton 2014).

### 3.4.1 Selecting qualitative thematic analysis

According to Wong (2008), the bulk of qualitative data is present as detailed, comprehensive, and contextualised information. It is important to do a thorough analysis of the data in order to get meaningful information from this wealth of information. In this study, qualitative evidence was analysed using thematic analysis (TA), which is described as the identification, organisation, evaluation, and breakdown of major themes that result from findings (Nowell, Norris, White DE, Moules. 2017). The strength of theme analysis resides in its ability to support the investigator in adopting a concise method for processing data and producing findings whose content is essential for distilling the essential components of massive amounts of data. Because this study adopts an interpretivism approach, thematic analysis was selected as the appropriate way to identify key themes and address the subject matter (Smith J, Firth J. 2011).

### 3.4.2 Theme evaluation process

Themes evaluation was carried out in this study using Braun together with Clarke's (2006) six-step method for qualitative inductive thematic analysis. Getting acquainted with the data first requires transliterating the interviews, reading the transcripts a second time, or by playing the audio files. Second, the information was coded through creating brief labels for significant and pertinent data characteristics connecting to the (broad) research inquiries, which guided the investigation. For the purpose of constructing a compelling story about the evidence, themes were explored, named, and searched. To present the reader with a clear and persuading interpretation of the information in relation to the currently used literature, the analytical description and data extracts are combined during the writing-up phase.

### 3.5 Validity

Trustworthiness is the ability of the researcher to evaluate each study decision critically (Miles, Jozefowicz, 2010). In this study, the researcher's honesty was revealed by their persistent scrutiny of the appropriateness and quality of the data gathering and analysis processes. However, this study employed an iterative, reflective methodology that permitted inductive examination of the body of literature (Braun and Clarke, 2006). Thematic analysis also significantly improves results' correctness and consistency.

### 3.6 Ethical Approval, Consent and Confidentiality

The ethical guidelines to execute the investigation and for safeguarding the rights of subjects in studies should be adopted and followed throughout the study, according to Botma, Greeff, Mulaudzi, and Wright (2010). Because of this, the research was conducted with a consistent commitment to the principles of beneficence and respect for individuals. In order to prevent harm, the researcher is concealing and will not make public the HIV infection status of adolescents. The standards of confidentiality as well as secrecy were upheld during this examination. Password-protected data storage devices were used to store all data securely. Prior to the study's start, the Head of Research at Chitungwiza Central Hospital and the study site gave their appropriate ethical permission. Prior to conducting the interviews as indicated above, participants' written agreement was also sought.

### 3.7 Chapter summary

This section concentrated on the researcher's methodology. Discussions covered topics such study design, sample, data gathering methods, validity and reliability, data analysis and ethical issues.

## CHAPTER 4: PROCESSING AND LAYOUT OF DATA

### 4.0 Introduction

This chapter presents the findings of the study as they were discovered after evaluation of themes of 10 participant deep-dive interviews. The major goals of the present research were to comprehend the obstacles preventing ALHIV patients in Zimbabwe from complying with their therapy regimens and to suggest practical solutions for enhancing therapy compliance.

### 4.1 Presentation of results

In view of this study inquiry, four topics and nine categories were produced by thematic analysis of the data and reflected ALHIV therapy compliance difficulties. According to Miles B. and Jozefowicz D. (2010), categories show the accumulation of related data, whereas themes are described as the narrative's core across the data. See the appendix for a detailed explanation of the themes, categories, codes, and associated excerpts from the thematic analysis. The themes and categories that the survey produced, along with example excerpts, are shown below. To protect participant confidentiality, codes were assigned to each topic and category.

### 4.2 Theme 1: Social obstacles to therapy compliance

Social obstacles, which include socio-cultural and socio-economic variables, have emerged as the most varied hurdles, preventing adolescents from adhering to therapy on a variety of levels. According to participant P04, the sociocultural problems with faith healers (Prophets) and traditional healers (Sangoma) initially carry detrimental effect on ART therapy compliance in adolescents:

*...” We have a propagation of faith healers, which is causing serious problems. Adolescents typically look for a way out. Therefore, if someone claimed, "I have healed you, you have ceased to possess the HIV virus," they would readily accept and be joyful. "Now that I've recovered, I don't use drugs anymore."*

P07, another participant, added the following:

***"A couple of them claim that we travelled to see 'Papa' or diviners where they handed us the remedy and since then I've been clear of the HIV virus," others claim they were told to stop taking their medication by the church."***

The participants further stated that there is still a great deal of discrimination and stigma around HIV, a sexually transmitted disease, particularly for ALHIV. Stigma from society produces intolerance and unacceptance for ALHIV, complicates the disclosure of the adolescents' HIV positivity to their partners, peers, and families, and has a significant impact on how well the adolescent patients stick to the medication.

Participant P07 said, ***"To this day, folks continue to harbour a very negative perception of the disease. Stigmatisation would actually lead to non-compliance and ALHIV default, and all those elements would have an impact on how young people use drugs, making it one of the major issues."***

In addition to the stigma issue, participant P02 stated that ***"disclosure concerning one's status takes numerous forms, I ask a few adolescents, and they talk about stigma and prejudice, and the necessity to disclose makes it tough to reveal to other family members, friends, and teachers."...***

Assistance for family members remains a significant component in influencing therapy compliance for ALHIV as well. According to the participants, the majority of ALHIV do not adhere to therapy because of the lack of support from families and difficult home circumstances, as participant P08 testified ***"The majority of these youngsters are HIV orphans who are cared for by foster households."***

***"They reside with kin who despise, stigmatise, and have no intention of actually being supportive of them. They don't have family support. Consequently, individuals may ultimately determine, "Why should I take the drugs anyway?" ..."***

A different participant, P09, stated during a discussion regarding familial backing, "Adolescent drug use can actually be dependent on an adult who might be less supportive, and the adherence element also pertains to the family guidance,"

Last but not least, the socioeconomic issues brought on by Zimbabwe's economic position have resulted in poverty, a decline in purchasing power therefore, as a result the adolescents are unable to afford the hospital user charge due to continuous inflation, impoverishment, and joblessness. Participant P06 declares:

*“These young individuals have no means to pay for admission to reputable medical facilities....*

Participant P03 also verbalized that:

*“Owing to the appointment expenses, they are incapable of paying to see a doctor”...*

Another issue brought on by socioeconomic issues is that The inability of disadvantaged young people to procure food for themselves has a direct negative impact on compliance with therapy as stated by participant P08:

*...“I believe that their social life is involved, as when there are impoverished circumstances, there is no food to eat before taking medicine.,” Therefore, not taking the prescription is the greatest thing they can do.*

The aforementioned obstacles show how socio-cultural and economic factors overwhelmingly influence ALHIV therapy compliance on both social and through the medical sector, which is covered in more detail below.

### 4.3 Theme 2: Medical sector obstacles to therapy compliance

The management of ALHIV and patients' compliance to therapy are significantly influenced by the Zimbabwean medical sector. Problems with healthcare management, healthcare functionality, and healthcare professionals thereby evidence that the medical sector acts as a barrier to compliance to ALHIV therapy. First off, due to inadequate administration of the medical sector, all medications, including ARVs, are insufficient or in limited supply at healthcare facilities nationwide.

*“They have drug shortages, what do they contribute when they experience ART deficits? They may supply as much as three months' worth of medication, however when there are supply deficiencies, they often just provide a weeks or two-weeks' worth.* Participant P10 confirmed.

Participant P07 highlighted this deficiency further by saying:

*“At particular moments, you discover that certain ART medications are not even available....*

Additionally, ALHIV cannot access healthcare services because of the dysfunctional medical sector. These operational issues are a result of decreased budget and inadequate funds provided



by the government to the public healthcare sector. The user price for healthcare facilities has increased as a result, it has made ALHIV patients' access to healthcare services even less accessible, making it difficult for them to obtain medications and leading to non-compliance to therapy. The same was said by participant P02: ***"the consumer expenses, because I am aware that it is unquestionably one of the barriers to compliance."***

Participant P10 added support by saying:

***"Charges for users are for sure an obstacle and they were recently increased as well, in my opinion."***

The collapse of Zimbabwe's economy has also had a significant impact on healthcare professionals, causing numerous issues in the medical sector. The majority of whom have left the nation in quest of better employment possibilities, leading to a dearth of healthcare professionals in Zimbabwe, which, as indicated by participant P09, indirectly effects the therapy compliance behaviour of ALHIV.

***"I think Zimbabwe's fiscal challenges are cause for concern because even medical facilities and the city health have seen a decline in employment."***

As stated by participant P04, the expulsion of healthcare professionals from the medical sector has had a number of negative effects on those professionals who are forced to work in unsanitary settings with far fewer staff members than patients they hardly have the opportunity or enough room to listen to the patients in busy clinics.

***"The workload is unfair, it can be simply overwhelming at times, and you can tell the nurse is just exhausted"***

***"They arrived at the hospital, they won't even be given a chance to listen, because their seats are quite completely filled, they need to clear them, clear all the clients," participant P01 highlighted further. "The staff-to-personnel proportion is therefore inadequate, and I think that this is the issue."***

As stated by participant P03,

***"How can you serve a patient if you're feeling burnt out? When the practitioner is burnt out, it affects everything, certainly. The healthcare professionals are overworked and unable to perform their duties, making it impossible for them to provide quality care to the ALHIV."***

***When you are affected psychologically all over, you cannot concentrate, you are strained, and you cannot provide high-quality healthcare.”***

The participants also indicated that medical professionals get upset with the adolescents occasionally for trivial issues, and that this has a detrimental impact on their compliance with therapy since the youngsters quit visiting clinics or hospitals for their therapy.

Participant P08 expressed this concern in the following words:

***“The attitude of the nurse is one of the primary explanations why adolescents cannot go to the hospital for therapy.”***

***“For instance, if I inform them that I neglected to take the medication, they'll be angry with me. Consequently, adolescents believe that they will be reprimanded or yelled at. They occasionally claim that when they arrive, the nurse informs them that they have missed their appointment and must return the following week. Therefore, some healthcare professionals engage in that type of behaviour to attempt and punish children, which is shocking.”***

Therapy compliance is impacted by medical sector barriers that limit ALHIV patients' access to healthcare facilities, prevent them from receiving necessary medications, affect their compliance to therapy both directly and indirectly, and result in healthcare professionals' judgmental and patronising attitudes towards these ALHIV patients.

#### **4.4 Theme 3: Personal obstacles to therapy compliance**

Adolescents' disease-oriented barriers to therapy compliance are a subset of personal barriers to therapy compliance that prevent HIV therapy compliance. According to the participants, adolescents who are HIV positive experience feelings of resentment, bitterness, and hostility towards their parents, families, and medical professionals as a result of variables associated to their disease state. The main reason for this is that families with just one HIV-positive child, he or she frequently consider themselves inferior to and distinct from the other children in the family.

Participant P07 had this to contribute: “According to one of them, “sometimes some of their siblings would test negative for HIV, so they'd say, I'd be resentful towards my parents, even those siblings, and that resentment would actually propel them not to employ their pills.”

Another participant, P06, claimed that the ALHIV are very agitated because their biological parents infected them and that this has made them bitter and resentful.

***“Because they believe they are innocent and did nothing to contract the disease, they may begin to despise their parents, which is very tough for them to deal with. They additionally get extremely frustrated about having HIV.”***

Additionally, failing to inform family members or medical professionals about an adolescent's HIV status could result in sentiments of animosity and a failure to stick to therapy, as participant P02 noted: ***“There is a great deal of frustration, resentment, and dissatisfaction with these adults, to the medical staff for failing to be accessible, and I think when it's poorly executed it may have a significant impact on how someone adheres to drugs.”***

Participant P04 also stated: ***“Also, other folks ‘just had rage’ because they felt deceived and left out of the reality.”***

The incapacity to anticipate any potential outcomes for the foreseeable future, whether related to partnerships or academics or a career, is another significant disease-related issue that discourages ALHIV from seeking therapy. They lose hope in their future prospects, which demotivates them to continue with their therapy and, in most circumstances, leads them to consider suicide. ***“And a number of them have attempted suicide, which makes them just think, what if I just discontinue it and I pass away because they, some of them have become utterly helpless since they believe they have diminished their inner confidence”***. Participant P05 verified.

Participant P01 affirmed this as well by saying:

***“ They predict a bleak future, so what's the point?” Why should I trouble myself?”***

As a result of their emotional upheaval and inner turbulence, which manifests as sentiments of hatred and bitterness towards everyone, these adolescents experience individual hurdles that lead to non-compliance to therapy.

#### 4.5 Theme 4: Medication barriers to therapy compliance

Medication-related variables may potentially function as a barrier to therapy compliance. These hurdles include those linked to the HIV therapy schedule as well as those related to the ART

tablets. HIV therapy is a lifetime commitment, and health care practitioners insist on it at all times. As a result, one of the difficult aspects of HIV therapy for ALHIV is the requirement to take medications consistently for the remainder of one's life. The necessity of having to consume pills on a regular basis for the rest of their lives appears burdensome to these adolescents, and they do not stick to their meds due to therapy weariness. Participant P04 characterised it as follows:

***"I've experienced therapy exhaustion, which is not unexpected given that you've probably endured your medications your entire life if you've had HIV since the age of four"***.

Furthermore, as indicated by participant P09, participants believed that adolescents with perinatal infections who have been taking the medication for a long time had a growing difficulty with therapy fatigue.

"Since you've laboured over it for so awhile and are now declaring that you're finished, sometimes I simply don't want to go through with it anymore."

***"Additionally, since the dosage forms are not age-appropriate for adolescents, the adolescents' concerns with the pills have been attributed to their massive size, which makes it tricky for them to swallow. As a result, ALHIV do not adhere to their therapy. " Particularly when it comes to how big the pills are, some criticise that they're excessively big, I struggle to take them," participant P08 stated....***

According to participant P02, pill burden, or the amount of medications to be taken, is also a difficulty for certain teens.

***"There are instances in which individuals claim that the quantity and size of the tablets render it impossible to follow the prescribed course of treatment"***.

Last but not least, the problem of drug side effects is a roadblock to therapy compliance. Participants acknowledged that adolescents are given accurate information and guidance about the risk of side effects before beginning therapy and are recommended to continue taking the medication even if they do occur. Nevertheless, the ALHIV stop their treatment against their doctors' recommendations. As participant P05 pronounced:

***"They would have been conscious of the adverse consequences, and you would have advised them to understand that we are fairly weighing the benefits against the drawbacks and that we have found that the advantages outweigh the drawbacks, yet they would still give up."***

Participant P04 stated: *In response to issues concerning negative consequences and failing to comply, "They Google the side effects of the drug, then they say, I won't continue to consume the drug because it is probable to have this adverse impact."*

In summation, the findings reported in this section have allowed healthcare practitioners to identify challenges to therapy compliance at various levels among ALHIV patients. The information gathered was assessed, processed, and divided into topics, categories, and codes. It's significant to note that this study found that social obstacles were the main cause of adolescents' failure to comply to therapy. ALHIV patients are particularly hindered from sticking with their therapy by issues of stigma and prejudice, as well as unintentional sharing among peers, school friends, and families. Additionally, ALHIV's bitterness, anger, and frustration in addition to variables related to pills in the medication barriers are the second most frequent barriers causing ALHIV therapy non-compliance, behind the many layers of obstacles in the medical sector and in particular the attitude of healthcare professionals.

## CHAPTER FIVE: DISCUSSION

### 5.0 Introduction

Following a thematic analysis of the data that was gathered, the outcomes of interviews with the participants will be explained in this chapter. In addition, it will make the four themes identified by this research more understandable and help with their inter- and within-relationships with the ensuing hurdles. After clarifying the difficulties highlighted by the healthcare professionals, this chapter also suggests practical plans to increase therapy compliance among ALHIV, in keeping with the study's goal.

The findings of this study revealed four themes in relation to the obstacles that hinder therapy compliance in ALHIV in Zimbabwe from adhering to their prescribed therapy regimens. These four obstacles are social, healthcare, individual, and medication-related, listed in decreasing order of how much they affect ALHIV therapy compliance. The nine categories (referred to as factors) that make up the four themes are further separated into elements that contribute to the phenomenon of therapy non-compliance among ALHIV. The most noticeable and pervasive barrier to ALHIV therapy compliance among the four barriers found is the social barrier, which has a variety of effects. Following that, there are pharmaceutical, personal, and healthcare-related hurdles. These four barriers, their respective categories, and the methods by which each one contributes to therapy non-compliance among ALHIV will all be illustrated in the paragraphs that follow.

### 5.1 Social barriers to therapy compliance

The National Academics of Sciences EAMN, (2018) contends that society plays a significant role in the lives of adolescents, affecting them in a variety of ways through culture, customs, and attitudes. As a result, the relationships that adolescents have with the people in their social circle—family, friends, and society—all have an impact on how well they adhere to therapy. Social barriers, which were mostly made up of socio-cultural and socio-economic factors, had a significant impact on therapy compliance of ALHIV. In the context of the socioeconomic category, these factors included poverty, higher transportation costs, and food insecurity. In the socio-cultural category, these elements encompassed traditional and religious healing, social stigma (stigma, discrimination, taboos), and family attitudes.

### 5.1.1 Socio-cultural factors

According to Bohlman LN, Panzer AM, and Kindig DA. (2004), socio-cultural influences shape society beliefs and actions, affecting how people see health, disease, and health-seeking behaviours as well as the creation of traditional religious practises and taboos. This study has demonstrated that a variety of social aspects of an adolescent's life, including their interactions with their faith, culture, peers, and families, as well as their HIV positivity, are significantly influenced by socio-cultural factors.

#### 5.1.1.1 Religion & Traditional healing

Religion can be deemed the traditional arrangement of holy ideas; it establishes the cornerstones of communal existence and establishes the moral standards for sexual behaviour in civilizations (Szaflarski, M. 2013). The findings suggested that traditional medicine and religion/faith healing had a significant influence on societal ideas and attitudes in Zimbabwe. Results revealed that these religious views on sexuality also play significant roles in fostering social judgement, hatred, prejudice, and rejection of ALHIV in African culture by virtue of illicit allegations rendered against these young people as being promiscuous and morally repugnant. The ALHIV experience stigmatisation in society, which makes it very challenging for them to maintain therapy compliance throughout their HIV therapy cascade.

On the advice of faith healers (often Evangelical congregations), who incorrectly assert that they may cure HIV, many of these adolescents' therapies are also stopped by family members. As a result, there are numerous instances of adolescent fatalities. Second, Harare's dominant ethnic group, the Shona, specifically seeks out the help of Sangomas, or indigenous healers, who claim to be able to communicate with ancestors through paranormal means in order to cure ailments (Strydom J. 2010). The interviews found that people are more likely to turn to traditional healers than to allopathic HIV therapy because of the native commonalities in their beliefs and practises. The elders of a home traditionally make all decisions in African culture, thus if the elders in the family of a teenager choose traditional medicine, ALHIV therapy will unavoidably end. Early study confirms the negative impact of practitioners of faith and conventional medicine on adolescents' therapy compliance, as suggested by Mavhu W. et al. (2020).

### 5.1.1.2 Social prohibition

Social preconceived notions and stigmas, especially with relation to sex, sexual behaviour, and sociocultural myths about the propagation of HIV, are referred to as social bans, according to Ogbonna B, et al. (2016). Findings show that despite efforts to lessen stigma for PLWHIV, there is still a significant amount of stigma for the ALHIV. HIV is a sexually disseminated infection, in spite of understanding, the sexual component of this illness cannot be ignored. This is the basis for stigma. As a result, adolescents were found to have serious issues in every area of their lives, which had a significant negative impact on how well they adhered to therapy. ALHIV experience resistance and disclosure anxiety due to stigma and fear of discrimination. The backing for these adolescents has vanished because of the nondisclosure, which is crucial during this stage of development. Both among their families and their contemporaries, ALHIV experienced these instances of social isolation. In addition, ALHIV prefers to purposefully abstain from drug use in order to hide their HIV positive status. Additionally, the stigma and absence of private areas in boarding schools cause drug dosages to be missed. The findings indicated that adolescents avoided attending clinics because of concern about unintended disclosure and refrained from doing so in order to obtain drugs. According to past studies, stigma, discrimination, and disclosure difficulties have a poor impact on ALHIV compliance (Madiba S, Josiah U. 2019). Similar findings have been reported in this regard.

### 5.1.1.3 Societal attitudes and views

The outcomes demonstrated that the family environment and parental encouragement were crucial elements in determining ALHIV's adherence to therapy. Makiwane and Kaunda (2017) assert that the family is the core component of organisation. Additionally, it is vital to African culture and serves to bind people to society. The results did, however, demonstrate that many parents opted not to divulge their child's HIV diagnosis due to judgements, social rejection, shame, and damaged feelings. This later resulted in family distrust and contributed to the non-compliance of adolescents. Such instances of betrayal and deception damaged family cohesion and solidarity, which is especially important for adolescents who require family support during this trying time in their lives.



### 5.1.2 Socio-economic factors

Socio-economic influences refer to how social and economic aspects interact in a community. Following is a discussion of the different socioeconomic aspects that have a detrimental impact on adolescents' compliance.

#### 5.1.2.1 Poverty

According to the research, poverty affects adolescents' compliance in a variety of ways. Adolescents in Zimbabwe have almost no chances for employment or financial security, therefore they are financially dependent on adults. Because of this, when there is no money available, the adolescents are unable to pick up their medications or go to medical facilities. Additionally, this position is made worse by the fact that the country's inflation has raised the cost of basic necessities as well as the costs of medical care, making it difficult for the adolescent to handle their therapy.

#### 5.1.2.2 Food insecurity

The results highlight one facet of poverty: the inability to purchase food because of a lack of money. Food is a necessary prerequisite for the majority of ARVs. However, the financial circumstances and poverty of these adolescents hinder them from being able to purchase food for themselves. One of the greatest devastating tropical cyclones to strike Zimbabwe was the most recent hurricane Idai. and cause widespread destruction, has also led to severe food shortages for the population of Zimbabwe, which has deteriorated the ability of many of these youths to use drugs. Because of this, it is directly impossible to follow a therapy plan when there is a food shortage.

#### 5.1.2.3 Increased transport costs

The socioeconomic issues in Zimbabwe, particularly the recession and rising inflation rates, have significantly worsened the quality of life for the population as well as eliminated many jobs and employment prospects in the country. Therefore, in Zimbabwe's current socioeconomic environment, making money is no less than a fight. The high expense of transportation, which prevents adolescents from travelling to medical facilities to pick up medications, is a factor directly related to the compliance of therapy for the vulnerable ALHIV population.

## 5.2 Medical sector obstacles to therapy compliance

Also, including individuals who offer health care services to people as well as the facilities and resources in the field, the primary provider of therapy and a major factor in how well ALHIV adhere to therapy is the medical sector. Medical sector operation, management, and staff/providers are the three components that make up healthcare obstacles. Each of these factors affects ALHIV therapy compliance in a variety of different ways, which are detailed below.

### 5.2.1 Healthcare functioning factors

The findings showed that factors such as medical sector funding and expenses linked to the provision of public healthcare facilities were necessary for the medical sector to function. It has been demonstrated that functional disruption prevents implementing the health care sector, leading to a wide range of issues. The incapability of entities in power to make investments towards public health amenities is the cause of these issues. Additionally, the governing organisations do not have dedicated facilities for the ALHIV, while being aware of the unique needs of adolescents, and there are currently very few adolescent-friendly programmes available in Zimbabwe.

Therefore, as a result of reduced funding, the price of accessing healthcare services has gone up along with additional costs associated with HIV therapy. Due to their inability to afford the higher user fees in such circumstances, financially dependent adolescents with ALHIV experience limited access to healthcare, which in turn results in non-compliance to therapy. In contrast to earlier research, when user costs did not appear to be a substantial barrier to ALHIV therapy compliance, increased user fees significantly contributed to decreased access to therapy facilities in the current study.

### 5.2.2 Healthcare management factors

Healthcare administration focuses on administrative duties such ensuring that there is enough supply of medications, medical supplies, and staff that is equal ratio with the amount of patients who are coming in. However, the imbalance between the number of clients and employees as a result of bad management has resulted in clinic overcrowding and high wait times. The findings confirmed that there are still numerous issues with the drug supply, including a dearth of ARVs and other crucial medications in Zimbabwe. The country's medicine deficit is a result

of inadequate resource allocation due to inadequate supply chain planning and management. When there is a medicine shortage for ALHIV, adolescents receive less medication than the recommended three months' supply, which results in more frequent hospital visits, an increased risk of unintended disclosure, and an increase in therapy expenditures. Patients are instructed to purchase medications privately at the local markets if they are not available in the hospitals. The drawback with privately making purchases, though, is that neighbourhood pharmacies charge high amounts for medicines (sometimes USD currency, which has become extremely difficult to acquire in Zimbabwe's precarious fiscal situation). Another problem is the reduction in medical institutions' capacity to diagnose patients and the staff's inability to treat patients due to inadequate medical supplies. All of which make it challenging for the teenagers to adhere to their therapy plans in one way or another. The results of this study corroborate earlier research by Azia, Mukumbang, and van Wyk (2016) in terms of lengthy clinic waiting periods, queues and an ARV shortage, but they did not experience the issues reported in other studies, such as absent medical documentation and delays in insurance documentation (Galea, Wong, et al. 2018).

### 5.2.3 Health care supplier factors

The results made clear that the working conditions for health care professionals in Zimbabwe are appalling, and when combined with their minimal pay, they have no incentive to put in any effort. The underfunding of public hospitals as a result of the national economic crisis has resulted in difficult working circumstances for healthcare professionals, according to the results. The inability of the health sector to meet the staff's financial needs has raised brain drain and turnover rates among Zimbabwe's medical professionals. This enormous flight was largely sparked by the medical sector's incapability to pay staff salaries, together with a dearth of necessary tools and an unfavourable work atmosphere. The staff's motivation and excitement for work have decreased because they are unable to meet their personal requirements and those of their families because of their low earnings.

The patient-provider ratio became unbalanced as a result of rising health professionals' attrition, with patients per health professional being significantly higher than the international standard. As a result of this disparity, Zimbabwean clinics are always overflowing with patients since there are more individuals seeking healthcare facilities than there are healthcare professionals available to treat them. Additionally, as a result, the quality of care given to

adolescents has severely declined because packed clinics and increased workloads prevent medical professionals from devoting enough time to solving these adolescents' concerns.

The results also indicated that the healthcare professionals' negative attitudes towards ALHIV have been a result of their low wages, heavy workloads, insufficient time for ALHIV patients, and bad working conditions. The ALHIV may be treated negatively by the medical staff in a variety of ways, including by being rude, interrogative, judgmental, shouting at them, and blaming them. As a result, the adolescents avoid going to the clinic to pick up their medications, which directly affects their compliance patterns.

### 5.3 Individual obstructions to therapy compliance

Adolescence is the time of rapid neurological, social, emotional, and intellectual growth. Adolescents go through this period of exploration, social acceptance, and identity formation. The trajectory of adolescents is drastically altered when they are diagnosed with a sexually transmissible illness like HIV at such a young age, and the deeply ingrained hurdles in their personal lives become a strong predictor of therapy non-compliance in this age group. The sections that follow go into more information on this.

#### 5.3.1 Disease-oriented factors:

This study revealed the harmful effects of anger and bitterness and projected that most adolescents don't understand why they're taking drugs since their parents don't disclose their status to them when it's suitable. Therefore, unintentional disclosure causes a sensation of being misled, which makes adolescents angry, bitter, and inclined to place blame on their parents. In addition, if only one child in a household has HIV, that youngster may feel bitter and hateful towards the other members of the family since he or she feels different from them. In spite of the fact that it was not their fault, the ALHIV blame their parents for infecting them, according to the results. Adolescents in these conditions often adopt self-injurious ways as an avenue of conflict resolution in place of counselling.

#### 5.3.2 Frustration, hopelessness, demotivation factors

Results show that there are no specific ALHIV future opportunities in Zimbabwe. For these adolescents, leading that kind of life is a quite a burden because the majority of them do not attend school because of shame or a lack of funds, and some do not have a source of income.

The increased sense of absorption also emerges at the adolescence stage, but the HIV infection ultimately results in limitations on their sexual choices and lives. Because of this, these adolescents do not believe that doing drugs will benefit them, and because they are unhappy with their lives, they also attempt suicide.

## 5.4 Medication barriers to therapy compliance

Pharmaceutical barriers are issues ALHIV experience sticking to therapy because of medications. The Food and Drug Administration (FDA) defines medication as a pharmaceutical which is used to cure, prevent, treat, or diagnose a condition. Despite the terrible taste and unfavourable adverse effects of the medications that must be carefully taken every day for the rest of their life to cure their HIV, numerous adolescents find it challenging to stay committed to therapy. drug barriers, also known as therapy regimen factors and pill factors, are problems with drug compliance. The discussion of both of these subjects follows.

### 5.4.1 Therapy regimen factors

The findings show that one of the main reasons why adolescents do not stick with their therapy is because of ALHIV's exhaustion caused by the lifelong commitment of ART and the therapy routine. They lack motivation and view taking medications as a hustle and a public sign of being positive. Adolescents experience therapy fatigue as a result of the stress of adhering to a precise medication timetable and having to remember to ingest tablets daily for the rest of their lives. This is especially true because they must take their medications every day regardless of their schedules, which is challenging for most adolescents who live in boarding schools or with foster families and are more social.

### 5.4.2 Pill factors

The results also revealed that aspect of ingesting tablets on its own may operate as obstacles to ALHIV therapy compliance. Barriers related to pill measurement, pill quantity, and taste occur as a result of motivation to take the prescriptions as well as the absence of any supportive entity throughout the difficult stages of their condition. Additionally, they struggle to swallow and consume medicines, and adolescents avoid using drugs because of their size, unpleasant taste, and strong odour. On a larger scale, children's resistance to taking medications is a result of the lack of child-friendly dose forms. Results indicate that the ALHIV are further dissuaded from taking the drugs when they experience any negative effects. Nowadays, prescriptions for once-

daily dosing (ODD) and fixed-dose combos (FDCs), which have less side effects, are preferred. However, adolescents continue to report experiencing nausea and vomiting after using medicines, as well as feeling lightheaded, tired, or insomniac. As a result, side effects represent a significant barrier in adolescents' resistance to therapy.

Even though the adolescents receive comprehensive information about the medications, their use, and any potential negative effects, they still do not adhere well to their therapy and engage in unpredictable drug use, which has long-term detrimental implications. The four categories and the related barriers were covered above, and they both show and explain why ALHIV in Zimbabwe face these challenges to therapy compliance. This study's investigation of these barriers revealed that in addition to their individual existence and detrimental effects on ALHIV therapy compliance, these barriers are also connected and consequently exacerbate that compliance, as stated in the following section.

### 5.5 Inter and Intra-relationship of noncompliance factors

The results of the data analysis and interpretation revealed that, in addition to the above-mentioned barriers producing therapy non-compliance on their own, there also existed an inter- and intra-relationship between them, whereby one barrier sparked the development of the other barriers, which in turn caused therapy non-compliance, demonstrating that social barriers induce and serve as the catalyst for the following barriers. The emergence of social barriers as the primary obstacle was caused by the growth of socio-cultural and socio-economic factors, which in turn accelerated the obstacles in the health care sector for individuals, and in medicine. Due to the weak national economy and inadequate healthcare financing, which make the medical sector function badly, the socio-economic factors in the social barriers initially have a negative impact on the medical sector.

Due to the badly performing healthcare sector, which worsens and degrades the performance of the healthcare workers, the management of the health care sector suffers. Personal obstacles in adolescents, such as bitterness, anger, dissatisfaction, discouragement, despair and thoughts of self-harm, are triggered by the unfulfilling and adverse mindset of healthcare personnel as a consequence of the absence of encouragement from the workers and the lack of future prospects. The combination of socio-cultural (stigma, publication, a dearth of family backing) and socio-economic (poor, greater costs) elements results in these personal hurdles. These obstacles also contribute to non-compliance with therapy.

Individual barriers, along with social barriers (socio-economic factors; malnourishment), all of which lead to therapy non-compliance among ALHIV, then stimulate the development of medication barriers, which show up as therapy exhaustion and others like pill size and number as well as adverse consequences of drugs. The aforementioned model, which depicts the relationships between the barriers on both an internal and external level, demonstrates how each barrier affects and encourages the development of the following barrier. This methodology will also make it simpler to pinpoint the ALHIV-related obstacles that cause therapeutic non-compliance. Additionally, it will aid in the recommendation of effective strategies that improve ALHIV therapy compliance.

## 5.6 Approaches to boost therapy compliance among ALHIV

The linkages between the obstacles were underlined in the preceding sections, as well as the thorough explanation of the causes of adolescents' noncompliance with HIV treatment. In accordance with the objective of this study, this section will offer practical suggestions for policymakers and all other participants in the ALHIV therapy cascade to lower the obstacles to therapy compliance. A cooperative effort from all systems involved in the HIV therapy of young people is supported by an examination of the barriers to therapy compliance, which reveals that these barriers are dispersed among numerous systems that surround an adolescent. ALHIV constitute a different demographic, hence interventions aimed at this group must be customised to their unique needs. In addition to increasing compliance, the development and implementation of such interventions would help low-income nations like Zimbabwe achieve the UNAIDS 90-90-90 targets. The four therapy compliance hurdles identified through this research are addressed by the strategies listed below in descending order of their importance.

### 5.6.1 Strategies to Improve Social Barriers to Therapy Compliance

Society plays a significant role in a person's existence. The main social hindrances identified in the context of this research include stigma, prejudice, disclosure, familial environment, and financial concerns. These social barriers prompt the following suggested interventions.

#### 5.6.1.1 Collaborating with faith healers

The social issue of faith and traditional healing is quite prevalent in Zimbabwe and has a big societal influence, so this study suggests that faith-based healers should be incorporated in therapeutic programmes in order to promote teenagers' compliance to therapy. Alliance and

cooperation with religious organisations and faith healers must be created in order to stop teenagers from using faith healing as a means of avoiding therapy. Involving practitioners of faith in the procedure, according to past studies, can considerably boost compliance (Wanyama, Tsui, et al. 2017).

#### 5.6.1.2 Combatting discrimination and stigma

Results showed that HIV stigma and prejudice are pervasive in Zimbabwean society; as a result, telling the child that they have HIV is essential to ensuring that they follow their therapy regimen. Families of such adolescents must be taught proper disclosure techniques in order to promote compliance as well as their emotional support. Additionally, ALHIV has serious concerns about disclosure to the family, partners, friends, and general public. As indicated by the participants, adolescents should also be encouraged to disclose to others. Disclosure, as recommended by past studies, can be accomplished through empowering adolescents, according to Kunapareddy, Nyandiko, et al. (2014). This will raise the societal acceptability of PLWHIV.

#### 5.6.1.3 Enhancing family support

Family is important in an adolescent's life, especially throughout the difficult period of living with HIV, it has been shown. Adolescents who get family support are more likely to comply with their therapy regimens and to support those living with ALHIV. A further factor that will improve ART compliance is including the family in the duty of the ALHIV patient's care. Other researches have supported Sahra, Munseri, Sultan, and Andersson's (2019) assertion that family participation plays a favourable impact in health.

#### 5.6.1.4 Economic empowerment

Results showed that ALHIV financial reliance is a substantial obstacle to medication compliance in Zimbabwe's ubiquitous low economic environment. As a result, ALHIV must use financial incentives to give the adolescents monetary autonomy, or food rations may be given to boost therapy compliance. Offering employment possibilities to provide monetary security and remove compliance issues brought on by financial limits could be another tactic for enabling adolescents in developing nations, as the data demonstrate that there are few future opportunities for ALHIV in Zimbabwe. According to Ngouakam, Assah, et al. (2019), financial incentives may be employed with adolescents and have been used in certain adult studies.



## 5.6.2 Approaches to boost healthcare sector obstacles

Zimbabwe's healthcare sector is in disarray as a result of a wide range of structural, political, and economical problems. These include concerns about how the medical sector is managed, operated, and staffed. The tactics suggested below try to reduce these elements, which can both directly and indirectly increase ALHIV therapy compliance.

### 5.6.2.1 Removal of user fee

User fees limit access to healthcare facilities, and they constitute a substantial barrier to adolescents' non-compliance with HIV therapy, the study's findings show. All HIV-related services must be offered without a user fee in order to promote the accessibility of healthcare facilities for ALHIV patients because the majority of persons with ALHIV originate from low-income families.

### 5.6.2.2 Managing drug shortages

Results showed that Zimbabwe suffers from a serious drug shortage issue; nevertheless, to solve this issue, the medical sector's financing needs to be boosted. To avoid future shortages, the supply chain system's flaws must be fixed. However, tactics including borrowing medications from other facilities, substituting ARVs that are insufficient, and directing adolescents to bigger hospitals with ample drug supplies should be used to assure unrestricted drug availability. Other investigations (Zakumumpa, Kiweewa, Khuluza, Kitutu. 2019) and (Mori & Owenya. 2014) have also made this claim.

### 5.6.2.3 Boosting working environment for healthcare staff

Lacklustre employment circumstances for health care professionals proved to be a barrier to providing ALHIV patients with high-quality care. As a result, in order for the providers to provide the finest therapy, they must be supported and inspired. This can be done in a number of ways, including by offering a comfortable workplace. Along with ensuring the timely delivery of fair compensation and financial and non-financial incentives, it is also necessary to promote the retention and return of healthcare professionals.

#### 5.6.2.4 Training of healthcare staff to deal with ALHIV

According to the findings, ALHIV patients are a heterogeneous group of people who need specialised care that takes a lot of time, patience, and effort. In order to help these ALHIV adhere well to their ART therapy, the medical team must be trained to demonstrate empathy for them and meet their unique needs. It's important to promote the use of a good, welcoming attitude. Preliminary studies (Soeters, Mark, et al. 2018) have also suggested training healthcare professionals to increase compliance.

#### 5.6.3 Approaches to boost individual obstacles

The absence of care and support from society causes adolescents to develop their own barriers of resentment, bitterness, lack of motivation, and frustration. Therefore, methods for overcoming these personal obstacles must centre on creating a network of support for these adolescents and giving them tools for empowerment.

##### 5.6.3.1 Encourage drug taking

According to the findings, adolescents require encouragement to use drugs, therefore urging them to go to therapy on a regular basis is crucial for sustained drug use. Text messages and reminders could be used to improve adherence to the therapy, which could teach the patient to take their pills regularly. The use of behavioural interventions as reminders for drug use has been supported by studies undertaken in the past (Hornschuh, Dietrich, Tshabalala, and Laher, 2017).

##### 5.6.3.2 Individualised care and service delivery

Due to the fact that ALHIV are a distinct subset of PLWHIV, they require HIV care that is distinct from that administered to adults and children and is tailored to their needs. Such initiatives could include the construction of adolescent clinics at every healthcare facility in order to more effectively assure their care and increase their involvement in therapy. There should also be facilities for ALHIV education, care, therapy, and entertainment, as well as clinic hours that are convenient for teenagers. These methods will improve ALHIV patients' adherence to therapy as well as their motivation for living and their chances for the future.

## 5.6.4 Approaches to boost medication obstacles

Therapy tiredness, the hardship of taking too many pills, and drug side effects were the main compliance hurdles associated to medicine. Results indicate that the majority of ALHIV find taking their medications embarrassing, hence initiatives to make their therapy easier must be put in place.

### 5.6.4.1 Short-cycle therapy (SCT), transdermal patches, and long-acting ART

Therapy weariness and pill load among ALHIV patients are brought on by the exhaustion of taking numerous medications over the course of a lifetime. The removal of obstacles to teenage therapy and the study of long-lasting drug use must also take advantage of advances in medical research and technology. This may lessen the quantity of tablets required, the frequency with which they must be taken, and the likelihood of side effects. To overcome the obstacle of therapy tiredness, additional techniques must be adopted, such as ART-free weekends that permit pre-planned pauses between therapies. Results also indicate that taking medications in public is associated with stigma and unintentional status disclosure. Transdermal patches or ART, which protect privacy and ease adolescents' anxieties of unintended disclosure, could be utilised to reduce the stigma associated with taking medication in public. This would increase compliance to therapy. In order to reduce the hurdles to therapy compliance faced by adolescents, earlier studies have also recommended using and researching the potential benefits of longer-acting medications and transdermal patches (Galea, Wong, Muoz, Valle, Leon, Perez, et al. 2018).

Because the aforementioned solutions were developed by identifying the obstacles that hinder ALHIV from committing to their therapy regimens, they focus on the areas of adolescent HIV therapy that still require improvement. However, social barriers appeared as the biggest roadblocks to ALHIV therapy compliance, as revealed by the inter- and intra-relationship model amongst the therapy compliance barricades. As a result, efforts should be prioritised to address these so that they do not cause the difficulties that were later identified throughout the development phase. Although challenging, implementing these strategies requires steadfast commitment and support from all parties involved in the HIV treatment continuum. These strategies offer guidance for improving drug adherence, allowing us to successfully meet the WHO targets of eradicating the HIV/AIDS pandemic by 2030.

## 5.7 Conclusions

The high rate of unsatisfactory compliance among ALHIV—around 39%—confirms the data that patients in situations with limited resources still struggle to maintain ART compliance. The fact that there is inadequate compliance is bad news for the authorities, who have been working to stop new infections and reduce the viral load in young people living with HIV. The amount of time from the diagnosis of HIV infection affects how well an individual uses ART. Adolescents' combined compliance to ART and HIV therapy depended on their medical providers' knowledge and instruction of how to take the medicine at the time of ART beginning and during follow-up visits. The majority of adolescents were reluctant to reveal their status to friends or family due to the potential for judgement, which is still existent in Zimbabwe, which had an effect on the adolescents' level of compliance with ART. The young people's inadequate awareness of the negative effects of each ARV treatment also had an effect on their degree of compliance. This study identified the obstacles to ALHIV therapy adherence and suggested workable ways to raise ALHIV therapy adherence in that nation.

Four barriers to therapy compliance were identified by the study's findings: social, medical sector, personal, and pharmaceutical barricades. These barriers are related to the various systems and interactions that surround ALHIV. The socio-cultural and socio-economic elements that make up social barriers are more complex than the other obstacles and operate as the primary factor in the development of the medical sector, individual, and medicine barriers. The results of this study indicate that while creating compliance interventions through the inter and intra-relationship concept of therapy non-compliance among ALHIV, social obstacles must also be taken into account in addition to medical interventions for enhancing therapy compliance.

The medical sector's financing needs to be strengthened in order for it to operate and be managed effectively. The management and operation of the medical sector will be improved, which will better the working conditions and motivate healthcare professionals to give the highest standard of care to ALHIV patients. Additionally, to help each adolescent see a bright future, future possibilities and assistance must be expanded. The UNAIDS aim of eliminating the AIDS epidemic by 2030 can be achieved by increasing medication compliance, which calls for the development of age-specific and long-acting drugs for the ALHIV. The findings of this study have assisted in developing interventions that are specifically aimed at ALHIV in Zimbabwe's resource-constrained environments. Despite gaining a wide understanding of

therapy compliance hurdles from the perspectives of healthcare professionals acting in diverse positions but however, this study had its own defects.

## 5.8 Constraints

The present research was only able to describe the viewpoints of healthcare professionals that solely practise in Chitungwiza town due to time restrictions. Despite the fact that receiving information from the healthcare professionals broadened the scope of this research and improved the depth of the data acquired, it's possible that the participants neglected the factors pertaining to healthcare professionals that served as obstacles to ALHIV therapy compliance. The results of this investigation therefore cannot be extrapolated to other parts of the country. Larger representative health facilities from around the country should be included to give a national perspective on the prevalence of compliance.

In this study, patients' compliance was evaluated using a self-report approach because all phases of data analysis, including transcribing, coding, and theme creation, were carried out by the researcher alone. It is believed that the study results may have been skewed by the researcher's prejudices. Because there is no industry-accepted supreme standard for measuring compliance, self-report has been demonstrated to be a trustworthy indicator of compliance. Self-report measures, however, are infamous for being subjective and for exaggerating patient compliance. Additionally, the self-report compliance measure has been found to be susceptible to recollection bias and social desirability bias. The study used a tiny sample size as well. The list of criteria and the decision of who was qualified to reply limited the sample size. Results from a sample size that is too small cannot be extrapolated to the entire population.

To decrease the impact of researcher bias on the study outcomes, the researcher iteratively examined all stages of data processing, coding, and theme construction in conjunction with the supervisors.

## 5.9 Future research recommendations

The findings of this study emphasise the moments at which inter- and intra-related hurdles to ALHIV therapy non-compliance might be generated, and these points should be used to develop future focused and targeted interventions. Future studies may use a longitudinal study design to look into Zimbabwe's therapy compliance hurdles and how they have changed over

time due to the short duration of this study. Despite interviewing both male and female healthcare experts, the current study struggled to determine how their attitudes would differ. Future research should therefore consider how male and female healthcare practitioners have different perspectives. Additionally, the survey took into account the opinions of three different categories of healthcare professionals, including counsellors, nurses, and doctors.

The counsellors managing ALHIV, however, spend the majority of their time listening to their clients and resolving their difficulties with therapy compliance, thus future study should compare their perspectives to those of the other two healthcare professionals. Because the current research was conducted in a low-income country with deeply rooted cultural norms and beliefs, future studies may look at these obstacles in high income countries to see whether there are any differences in cultural and economic barriers there. As the direct victims of the impacts of ART non-compliance, family members and carers of ALHIV patients ought to be studied. Finally, future research needs to take a peek at the differences in hurdles between ALHIV that is acquired during pregnancy and that acquired through conduct.

## REFERENCES

A framework for guiding policy choices is compliance. Corporation RAND. 60 available [http://www.rand.org/content/dam/rand/pubs/technical\\_reports/2009/RAND\\_TR765.pdf](http://www.rand.org/content/dam/rand/pubs/technical_reports/2009/RAND_TR765.pdf)

A New Orleans urban cohort's retention rate has been found to be strongly correlated with networks. *Therapy for STDs and AIDS* 27(7): 375-377.

A Systematic Review of Recent Interventions to Enhance HIV Care Retention and Antiretroviral Therapy Compliance Among Adolescents and Youth. *STDs and AIDS Patient Care*. 2019; 33(6):237-52

A. Giddens and P. Sutton (2013). *Sociology*. The Polity Press, Cambridge.

A. Mugenda (2008). *Social Science Research: Theory and Principles*. Applied Research & Training Services, Nairobi.

A. Sarna, S. Pujari, A. Sengar, R. Garg, I. Gupta, & J. Van Dam (2008). Antiretroviral medication compliance and related factors among HIV patients in India. 28–36. *Indian J Med Res* 127.

Addressing the Social and Cultural Norms That Underlie the Acceptance of Violence: Proceedings of a Workshop - in Brief, The National Academics of Sciences EAMN. DC, Washington 2018.

AKH Ngouakam, F. Assah, A. Ndjalla, F. Monebenimp, and N. N. Marcelin. A Qualitative Analysis of the Factors Influencing Antiretroviral Therapy Compliance Among Adolescents Living with HIV in Cameroon's Centre Region. *Journal of Environmental Science and Public Health, Fortune Journals*.

Amico KR; Shaw S. Interventions to Improve Compliance to Antiretroviral Therapy in Adolescents and Young Adults 13 to 24 Years of Age: Review of the Evidence. 1999;72(4):387-99 in *Journal of Acquired Immune Deficiency Syndromes*.

Ayaya S, Marrero DG, Nyandiko W, Kunapareddy CJ, and Vreeman R. An analysis of the qualitative factors that influence adolescents in western Kenya's compliance to antiretroviral medication. 2014;13(4):383-401 in *J HIV AIDS Soc Serv*.

Balka K. Research methodology and design. *Open Source Product Development: What It Means and Why It Matters*. 33–48. Wiesbaden: Gabler, 2011.

Barbara Kirshenblatt-Gimblett (2018). How does research design work? the design context. *The Design Context*. Methods for Performance Studies course outlines. Columbia University.

Bohlman LN, Kindig DA, and Panzer AM. Health Literacy: The Cure for Confusion. editors: Washington, DC.

Boundless. Influences of Culture and Society on Adolescent Development, 13th ed.

Clarke V. and Braun V. Psychology thematic analysis is used. *Qualitative Psychology Research*, 2006.

Confusing Categories and Themes, J.M. Morse. 18:727-8 (2008) in *Qualitative Health Research*.

Cresswell, J. W., and Plano Clark, V. L, (2011) mixed method study design and execution (2nd ed.). Sage, Thousand Oaks, CA.

D. Grossoehme and E. Lipstein. Analysis of longitudinal qualitative data using recurrent cross-sectional and trajectory methods. *BMC Res Notes*, 9:136-, 2016.

DR. Kelly and S. Bunniss. research models for studying medical education. 2010;44(4):358-66. *Medical Education*.

E.C. Green and E. Murphy (2014). model of health beliefs. pp. 766-769 in *The Wiley Blackwell Encyclopaedia of Health, Illness, Behaviour, and Society*.

Ehrlich, R., and Joubert, G. (2007) *Epidemiology. A South African research guide*. Oxford University Press, South Africa, Second Edition

Evangelista L., Nogueira S., Machado S., Abreu T., Oliveira R., and Hofer C. (2008). Factors connected to adolescents in a reference facility in Rio de Janeiro, Brazil, not taking their antiretrovirals as prescribed. *Int J STD AIDS* 19(10): 685–688.

F. Fowler (2013) *Methods of survey research*. SAGE Publications; California

Ferrand R., Lowe S., and Whande B. (2010). Time for adolescents to count in a survey of kids using HIV services in a high prevalence area? *Bull World Health Organ* 88: 428–34.

Firth and Smith, J. Analysing qualitative data using a framework. 2011;18(2):52–62. *Nurse Res*.

Fumaz, C.R., Muoz-Moreno, J.A., Moul, J., Ferre, M.J., Negro, E., Paredes, R., Gómez, G., and Clotet. (2008) Attitudes and beliefs on long-term antiretroviral therapy compliance in pre-HAART survivors. 20(7) of *AIDS Care*: 796–805.

G. Rouleau, L. Richard, J. Côté, M.-P. Gagnon, and J. Pelletier. A Qualitative Study on Nursing Practise to Support HIV Patients with Antiretroviral Therapy Compliance. e20–e37 in *J Assoc Nurses AIDS Care* 30(4) (2019).



Galea JT, M. Wong, M. Muoz, E. Valle, S. R. Leon, D. Perez, et al. Compliance to antiretroviral medication among Peruvian adolescents living with HIV: Barriers and enablers. 2018; 13(2): [e0192791 p.] in PLoS One [Internet]. Accessible from: /europepmc/abstract/MED/29447226

Galli L., Giaquinto C., Doerholt K., Judd A., Chappell E., & Gibb D. (2016). Long-term trends in perinatally HIV-positive children's death and AIDS-defining incidents in Europe and Thailand. AIDS Conference International, Durban, South Africa, 2016.

Gifford A., Bormann J., and Wright B. (2000). Plasma HIV concentrations and self-reported compliance predictors in individuals taking several antiretroviral medications. *J Acute Immune Deficiency* 23:386-95.

Gretchen B. Rossman, Catherine Marshall, and Gretchen. 2nd edition of "Designing Qualitative Research" 2005; Thousand Oaks, California: Sage Publications

Gretchen B. Rossman, Catherine Marshall, and Gretchen. Third edition of Designing Qualitative Research. 2009; Thousand Oaks, CA: Sage

Guba, E. G.; Lincoln, Y. S. (2017). Evaluation of the fourth generation. Publications by Sage.

H. R. Bernard (2002). Third edition of the book Research Methods in Anthropology: Qualitative and Quantitative Approaches. Alta Mira Press, Walnut Creek, California.

Halperin, J., Pathmanathan, I., and Richey, L.E. (2013). Social Disclosure of HIV Status is Difficult. Available at: 10.3102/0013189X017008010.

Hart, D. (2005) Adolescent moral development. on November 1, 2020, available at: <https://doi.org/10.1111/j.1532-7795.2005.00094.x>

Hatane L., Soeters H., Mark D., Ronan A., Walker D., and Ameyan W. 2018. Raising awareness among health professionals to provide adolescents and young people with HIV with responsive care.

HIV counselling in the psychosocial management of patients with HIV or AIDS, Chippindale S, French L. *BMJ*. 2001;322 (7301)

Horwitz SM, Wisdom JP, Green CA, Duan N, and Hoagwood K. Palinkas LA. Useful Sampling for Mixed Methods Implementation Research Qualitative Data Collection and Analysis. 2015;42(5):533-44. *Admin Policy Mental Health*.

Howe, K. (1998) A cross-sectional study entitled Dogmas Die in Kinondoni District, Tanzania: Against the Quantitative-Qualitative Incompatibility Thesis. 2014; 7:3- in *J Pharm Policy Pract*.

I. Hodgson, M.L. Plummer, S.N. Konopka, C.J. Colvin, E. Jonas, J. Albertini, A. Amzel, and I. Holloway. *Health Care Qualitative Research: Open University Press*, 2005.

Implementing data saturation for interview research based on theory. 2020;25(10):1229–45 in Psychology Health.

Incorporating Theory and Practise: Qualitative Research and Evaluation Methods, 4th edition, Sage Publications, 2014.

Introduction to Qualitative Research Design by Ronald J. Chenail. Southeast University of Nova Scotia  
Iriso R, Ingabire R, Nansera D, Musime V, Nasaba R, and others. Handbook on Psychological Care and Counselling for Children and Adolescents in Africa Living with and Affected by HIV. ANECCA, editor, in. Save the Children, Kampala, Uganda; 2018.

James S. using observation and interviewing as a qualitative research method. 2014;5(4):87-8 for J Basic Clin Pharm.

Jeane W. Anastas (2019). Chapter 4, Flexible Methods: Case Study Design, Research Design for Social Work and the Human Services, 2nd edition. Columbia University Press, New York.

Johnson F, Davies A, Moultrie H, Sherman G, Bland M, & Rehle M. A (2015). model-based examination of the impact of early antiretroviral therapy beginning in newborns on paediatric AIDS mortality in South Africa. *Pediatr Infect Dis J*, 31(5):474–480.

Joseph A. Maxwell, "Designing a Qualitative Study." *Applied Social Research Methods*, The SAGE Handbook.

Julie A. (2015). Adhering to antiretroviral medication and HIV: "The sky is the limit." *International AIDS Society Journal*, 18(1): 1-6.

K.P. Fogg (2014). ART Initiation, Compliance, and Retention for HIV-Infected Pregnant and Postpartum Women: A Systematic Review of Individual and Contextual Factors. 114–118 in *PLoS ONE* 9(11). You can get it at: [10.1371/journal.pone.0111421](https://doi.org/10.1371/journal.pone.0111421)

Key Ethnographic Concepts. 2009 2020/05/09. SAGE Publications Ltd., London. Key principles in ethnography is accessible at <https://methods.sagepub.com/book>.

Leonard Bickman and Debra J. 2nd ed., *Qualitative Research Methods*, Thousand Oaks, CA: Sage, 2009, p. 214–253. Colorado State University's Writing@CSU programme.

Lewis and Ritchie, J. *A Guide to Qualitative Research Practise for Social Science Researchers and Students* 2003. London: Sage Publications.

M. DeJonckheere and L. M. Vaughn. In primary care research, semistructured interviewing strikes a balance between intimacy and objectivity. 2019;7(2): e000057 for *Family Medicine and Community Health*.

M. Makiwane and C.J. African Families and Inclusive Societies.

M. Q. Patton (2002). *Methods for qualitative investigation & evaluation*, third edition. Sage, Thousand Oaks, CA

Malungo, J.R.S., Martin-Hilber, A., Gari, S., Doig-Acua, C., Smail, T., and Merten (2013).

Maskew, M., Bor, J., MacLeod, S., Carmona, G., and Fox (2016). Adolescents on ART are experiencing a youth therapy bulge in South Africa, with rising numbers and subpar results.[Abstract] AIDS Conference International, Durban, South Africa, 2016.

McGlynn, E.A., Grenard, J., and W.F. Gellad (2009). Review of medication-related obstacles.

Medical research: Botma Y, Greeff M, Mulaudzi FM, and Wright V. South Africa's Cape Town: Pearson Education 2010; South Africa.

Medicine Sentebale TpfeciA, LSoHaT. addressing the issues that young people in sub-Saharan Africa have when trying to determine and manage their HIV status. 2017 in London.

Miles, B., and D. Jozefowicz. (2020). "Naturalistic inquiry."

Morgan Kaufmann (2014); pages 23–41.

Munseri P, Sultan R, Sahra A, and Andersson R. In Tanzania's Dar es Salaam, family support is crucial for moms who are HIV positive to adhere to antiretroviral therapy. *Clinical Microbiology and Research, Science Repository*, 2019.

Namey EE, Mitchell ML, and Guest G. Sampling in Qualitative Research, Chapter 2. The 2013 field guide *Collecting Qualitative Data for Applied Research*.

Norman K. Denzin and Yvonna S. Lincoln. *Qualitative Research Handbook*. 2nd printing. Sage, Thousand Oaks, CA, 2000

Osborn M. and Smith JA. An effective research tool for studying people's actual experiences with pain is interpretative phenomenological analysis. 2015;9(1):41-2 in *Br J Pain*.

Owenya J., Mori A.T. Antiretroviral medication shortages and coping mechanisms used to avoid modifications to therapy regimens,

P. Aspers and U. Corte. What constitutes a qualitative study? 2019;42 (2), *Qualitative Sociology*.

Pham L. Key paradigms are reviewed in 2018, including positivism, interpretivism, and critical inquiry. Research and evaluation of the marketing plan by Lucas-Alfieri D. 3. in D. Lucas-Alfieri, ed. *Chandos Publishing*, (2015). *Marketing the 21st Century Library*, pp. 19–30.

Research Design, I. Akhtar, 2016.

Research Methodology and Research Method, Chapter 3, Goundar S. 2013.

Research Methods for Business Students, by Saunders, Lewis, and Thornhill (2009). Pearson, New York.

Rubin IS and Rubin HJ. The Art of Hearing Data: Qualitative Interviewing, 2nd edition, 2005 2012 January 1st.

Sampaio FJdLS, Nóbrega MdFB, Gubert FdA, Pinheiro PNdC, Martins AKL. A descriptive study of the self-care needs and daily life of an adolescent with HIV/AIDS. Brazilian Nursing Journal, Vol. 12, No. 1 (2013) DO - 105935/1676-428520133812. 2013.

Sim J, Baker S, Waterfield J, Bartlam B, Saunders B, Kingstone T, et al. Exploring the theory and operationalization of saturation in qualitative research. (2018). Qual Quant. 52(4):1893-907.

Simoni JM, Operario D, van der Elst EM, Micheni M, Kombo BK, Secor A, and others. Views of Healthcare Professionals on Increasing Antiretroviral Therapy Compliance Among Coastal Kenyan Men Who Have Sexual Contact with Men. STDs and AIDS patient care. 2017;31(3):113-21.

Smith, S., Rompa, and S. Kalichman (2018). HIV therapy compliance and unsecured sex among patients on antiretroviral medication. 79 (2):59–61 in Sexually Transmitted Infections.

Spirituality and religion among HIV-positive people, M. Szaflarski. 2013;10(Current HIV/AIDS Report)

Spradley, J. P. (2016). Interview for an anthropological study. Holt, Rinehart & Winston, New York.

Stern AF, Ahearn C, Ismail A, Nyombi TN, Ngonyani MM, and others; Moucheraud C. A qualitative study of discrepancies between patients' and healthcare professionals' perceptions of HIV therapy compliance was conducted in Tanzania and Uganda. STDs and AIDS Patient Care. 2019;33(9):406-13.

Sweat M. and J. Denison (2015) lowering the HIV prevalence in poor nations through structural and environmental changes. (suppl A): S251–S257. AIDS.

The Art of Case Study Research by Robert E. Stake. SAGE; Thousand Oaks, CA.

The future of healthcare in Zimbabwe, Kidia KK. 2018;11(1):1496888-. Global Health Action.

The Proposal in Qualitative Research by A. W. Heath. March 2017: The Qualitative Report 3.

U. Sekaran and R. Bougie (2010). A skill-building approach to business research methods (5th ed.). John Wiley & Sons, Haddington.

Understanding research philosophy and techniques to theory building is covered in Chapter 4 of "Research Methods for Business Students" (Saunders, Lewis, Thornhill, & Bristow, 2019). Pages 128–71.

White DE, Moules NJ, Norris JM, and Nowell LS. Striving to Meet the Trustworthiness Criteria is the theme of this analysis. 2017;16(1):1609406917733847 International Journal of Qualitative Methods.

Wilson I., Koech B., Kamene R., Wachira J., Kafu C., Genberg B., et al. According to a qualitative study of providers in Western Kenya, the health system hinders HIV care providers from providing high-quality care. 2019; 18:2325958218823285. Journal of the International Association of Providers of AIDS Care (JIAPAC).

Wilson IB, Lee Y, Rogers WH, and Genberg BL. Antiretroviral therapy compliance is decreased over time and is correlated with four different types of hurdles. 2015;19(1):85-92. AIDS Behav.

Wilson, C.M., Durako, S.J., Muenz, L.R., and Belzer (2005) Compliance to antiretroviral therapy among the REACH HIV-positive teen cohort. 13(2):27–4 AIDS Care

Patient non-compliance with medication regimens: assessment, clinical correlations, and economic consequences, Urquhart J. 1996. 8–15. European Heart Journal, 17 (Suppl A).

T. Vandecasteele, B. Debyser, A. Van Hecke, T. De Backer, D. Beeckman, and S. Verhaeghe. A qualitative investigation into nurses' perceptions of transgressive behaviours in care partnerships. 2015;71(12):2786-98 in J Adv Nurs.

'Dance to Health': an evaluation of health, social, and dance interest outcomes of a dance curriculum for the prevention of falls. Vella-Burrows T, Pickard A, Wilson L, Clift S, Whitfield L. 2019:1–15. Arts & Health.

Veloso V.G., Velasque L.S., Torees T., and Cardoso, S.W. (2014). Rate of initial combination antiretroviral medication regimen modifications or discontinuations during the first year of therapy due to toxicity, stratified by age. Braz. J. Infect. Dis., 18:34–41.

J. Wanyama, S. Tsui, C. Kwok, R. Wanyenze, J. Denison, O. Koole, et al. A study in three African nations found that people with HIV who are receiving antiretroviral medication also consult traditional healers. Journal of STD & AIDS International. 2017.

Van Teijlingen E, Wasti SP, Simkhada P, Randall J, Freeman JV. A qualitative study on the factors influencing antiretroviral therapy compliance in Nepal. 2012;30(4):410-9. J Health Popul Nutr.

writers for Wikipedia. medical system. 2020 edition of Wikipedia, The Free Encyclopaedia.

writers for Wikipedia. Socioeconomics. The Free Encyclopaedia on Wikipedia April,23, 2020.

Parker RG, Muoz-Laboy MA, Wittlin NM, Wilson PA, Valera P, Martos AJ, and Wittlin P. Qualitative research's contributions to the development of HIV/AIDS interventions in the United States that target Black MSM. *J. Sexual Res.*

Wong L. Data analysis in qualitative research: a quick tutorial on using nvivo, *Malaysian Family Physician.*

## APPENDICES

### Appendix I: Interview Guide

#### **Aims and Objectives**

This research aims to undertake “*An extensive inspection of barricades being faced by adolescents grappling with HIV/AIDS in adhering to Antiretroviral Therapy, concurrently proposing effective approaches to mitigate these challenges.*” The research initiatives that follow will be used to fulfil the objective in question: From healthcare professionals, information will be gathered on the underlying reasons of ALHIV in Zimbabwe non-compliance with therapy. to investigate and critically appraise the main causes of ALHIV patients' non-compliance with therapy. to offer suggestions for practical methods to increase ALHIV patients' devotion to therapy.

#### **Research Inquiries**

The current study is a double-edged investigation that involves the following inquiries in relation to the research problem:

- From the viewpoint of the medical professionals, what are the challenges to ALHIV therapy compliance in Zimbabwe?
- What can be the most successful tactics to increase ALHIV therapy compliance?

In-person conversations will be conducted with the medical professionals working with ALHIV in a setting where they feel free to share their opinions without fear as a way to accomplish the goals of this present investigation. An interview manual that is partially structured will be used to carry out the questions and answers and lead the conversation.

#### **Preliminary inquiries:**

- Identification & sex
- Date of birth
- Country of origin
- ALHIV expertise

The manual for interviews will be broken down into four concepts and each of these will have probes that may be used to elaborate on the topic at hand and gain an in-depth comprehension of it.

## **1. HIV in Zimbabwe**

- 1.1. Epidemiological tendencies
- 1.2. Severity of HIV
- 1.3. Mortality toll
- 1.4. Virus chronology
- 1.5 HIV proliferation
- 1.6 HIV prevention measures
- 1.7. Service delivery for individuals that are infected
- 1.8. Regional infection rates
- 1.9 Infection statistics

## **2. HIV-positive adolescents**

- 2.1. Delineating adolescents
- 2.2. Adolescents' demography in Zimbabwe
- 2.3. Causes of infection in adolescents
- 2.4. Impoverishment in adolescents
- 2.5. Level of education
- 2.6. Services for adolescents
- 2.7. Therapy for adolescents
- 2.8. Adolescents' way of life
- 2.9. Relationships
- 2.10. Mental condition of ALHIV

## **3. Therapy compliance**



- 3.1. Defining
- 3.2. Medications for HIV
- 3.3. Therapy process
- 3.4. Therapy compliance stats
- 3.5. Therapy compliance barriers
- 3.6. Reasons behind therapy compliance
- 3.7. Severe most barriers
- 3.8. Barriers related to healthcare staff
- 3.9. Relationship of healthcare staff with ALHIV
- 3.10. Role of healthcare professional in therapy non-compliance
- 3.11. Socio cultural and Socio-economic hurdles
- 3.12. Therapy regimen
- 3.13. Drug-based therapies
- 3.14. Therapy expenses

#### **4. Strategies for enhancing therapy compliance**

- 4.1. Barricades to non-compliance
- 4.2. Mitigation of challenges
- 4.3. Policies for barricades
- 4.4. Practical strategies to achieve compliance

## Appendix II: Participant Information Sheet

### Participant Information Sheet

**An extensive inspection of barricades being faced by adolescents grappling with HIV/AIDS in adhering to Antiretroviral Therapy, concurrently proposing effective approaches to mitigate these challenges: A Perspective of Healthcare suppliers in Zimbabwe**

#### **Introduction**

Greetings and I extend my deepest gratitude to you for consenting to participate in this research project, I am Kudakwashe Kelvin Muziri, an undergraduate student at Bindura University of Science Education, presently pursuing a Bachelor Honours Degree in Social Work.

#### **What is the purpose of this research?**

Despite the successful implementation and consequent decline in fatality of people of all ages in Zimbabwe, the proportion of the adolescents diagnosed with HIV is increasing and has not witnessed a continual decline, unlike other age groups. Compliance to anti-retroviral therapy is essential for managing the illness because it can prolong life and decrease virus replication for years. Adolescents living with HIV experience particular compliance issues as a result of their physical, psychological, and mental development stages. ART non-compliance is a significant threat to ART in this population. The WHO's 2017 global research agenda highlights the importance of and research priority of studying adolescents' compliance to ART. Numerous factors affect ART compliance, and as they continue to work closely with the patient, healthcare professionals play a crucial role in ALHIV therapy compliance. Therefore, it has been recommended by study that health care professionals' viewpoints on what prevents adolescents from adhering to their therapy be investigated.

Purposeful sampling method will be employed to conduct interviews with medical practitioners. The purpose of the present study is for comprehension of the factors that contribute to ALHIV patients' non-compliance to their therapy and to suggest practical ways to increase that compliance from the viewpoint of healthcare professionals who play a significant part in ALHIV care. The findings of the present investigation will assist with clarifying the recommendations provided to increase compliance and will assist in illustrating the hurdles to therapy compliance in ALHIV from the perspective of healthcare professionals.

The results of this study will be helpful to society because ALHIV compliance with ART is a big concern.

**Do you have to take part?**

You have the option to participate in or not participate in this study because participation is voluntary. I also want you to be aware that signing this consent form does not obligate you to respond to any of the inquiries. During our interview or chat, kindly don't provide any more information than you are comfortable with. You are not required to answer any inquiries you do not want to, and you are free to end the interview or discussion whenever you please, without having to give a reason. You are also free to stop participating in the research at any moment.

**What role will you undertake in the project?**

Unrestricted inquiries will be among those asked of you during partially organised, in-depth personal interviews and/or focused group discussions spanning between half an hour and one hour at the selected venue so as to elicit your ideas and points of view.

**Why have you been requested to take part?**

You have been requested to take part in this present research because I absolutely need and want to know what you think about it. I am aware of the jam-packed your routine is, and therefore appreciate you for taking the minute to participate in this interview and discussion. I don't anticipate any negative effects from your participation in this study. Hearing your thoughts will help me grow, and incorporating them into my research will help future study participants.

**What information is being gathered in the project?**

Through these comprehensive interviews and discussions in focus groups, we hope to hear your thoughts on how medical professionals may help young people living with HIV comply to their therapy regimens. Because the data will be pseudo-anonymous and I won't utilise any information that may be used to identify you, your privacy will be maintained both during and after the research.

**Who will have access to the information?**

I will be the only one with access to this information, along with my supervisors. I'll record our conversation with your consent to help with memory. I want to reassure you that the conversation will be private despite being recorded. The tape will be securely stored in a

secured location until it is verbatim transcribed, at which point it will be destroyed. There will be no information in the interview/focus group notes that could be used to connect particular subjects to comments.

**Where will the information be amassed and how long will it be retained?**

The information obtained from such interviews will be retained on a password-protected USB drive for up to a year before being erased. They will be kept in a secure location during the data storage time to prevent data leaking. Thank you for reading; if you have any inquiries about the content, don't hesitate to ask.

**What transpires next?**

You can get in touch with my supervisors and me using the details below if you have questions or want to learn more about the project:

Researcher: Kudakwashe K. Muziri Cell: 0781167688

Supervisor: Mr Maushe Cell: 0773814111

## Appendix III: Consent Form

### CONSENT FORM

**An extensive inspection of barricades being faced by adolescents grappling with HIV/AIDS in conforming to Antiretroviral Therapy, concurrently proposing effective approaches to mitigate these challenges: A Perspective of Healthcare suppliers in Zimbabwe.**

I attest that I have read and comprehended the Participant Information Form for the aforementioned experiment and that the researcher has satisfactorily addressed any of my concerns.

I certify that I have read, understood, and agree to the terms and conditions governing the collection, use, disclosure, and storage of my personal information.

I am aware that my involvement is entirely optional and that I can leave the project at any time, up until it is finished, without having to offer a reason or suffer any repercussions.

I am aware that I have the right to ask researchers to stop using part of my personal information for research purposes, and they will do so whenever it is practical. The following personal information is included: Audio recordings of interviews in which I am mentioned or details about me from the transcripts.

I am aware that after they have been incorporated into the study, anonymized data—data that do not personally identify me—cannot be removed.

I am aware that any data gathered for the study will be kept private and that nothing about me will be disclosed to the public.

I agree to participate in the experiment and to have my voice captured for the purpose of the project.

Name/Code:

Participant's signature:

Date:

## Appendix IV: Trustworthiness in the Study

CRITERIA	DEFINITION	APPLICATION IN RESEARCH
1.  <b>Reliability</b>	<p>Additionally, this study's participants' experiences had to be appropriate for the study in order for the data collection procedure to be appropriate and the quality of the data acquired to be relevant.</p>	<p>Based on participant experience and predetermined requirements were utilised to choose participants in accordance with the study topic. The participants were chosen from among healthcare professionals, such as doctors, nurses, and counsellors, who had at least five years of experience working with ALHIV. These medical practitioners had direct experience with ALHIV in their various roles, and as a result, they could offer detailed descriptions of the obstacles to therapy compliance.</p> <p>To evaluate the objective emergence of codes, categories, and themes from transcripts, peer debriefing was used. Raw data was used to derive the quotations used in the results, and the data was accurately and totally transcribed verbatim.</p>
2.  <b>Replicability</b>	<p>How widely research findings can be applied to other people, groups, and studies, as well as how widely they can be used in other research.</p>	<p>Through clarification and characterization of descriptions from the viewpoints of participants, this study has been explained in detail in order to facilitate replication. To enable use by other researchers in related contexts, the researcher has made sure to include a thorough explanation of the study's setting, participants, observations, data collection method, data processing method, and reporting method.</p>
3.  <b>Soundness</b>	<p>Assessing data quality through measurement of consistency and explicit description of study process and report</p>	<p>All interview data and transcripts were meticulously recorded and documented in order to follow the data and enable research replication in related contexts.</p>

DEPARTMENT OF SOCIAL WORK



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BINDURA UNIVERSITY OF SCIENCE EDUCATION

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Date ..... 15 February 2023

TO WHOM IT MAY CONCERN

Dear Sir/Madam

**REQUEST TO UNDER TAKE RESEARCH PROJECT IN YOUR ORGANISATION**

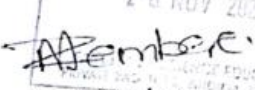
This serves to advise that..... KUDAKWASHE K. MUZIRI ..... Registration No.

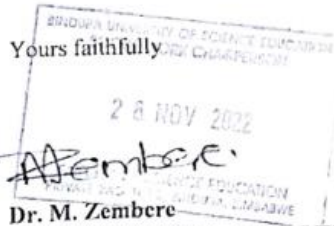
B..... 190685B ..... is a BACHELOR OF SCIENCE HONOURS

DEGREE IN SOCIAL WORK student at Bindura University of Science Education who is conducting a research project.

May you please assist the student to access data relevant to the study and where possible conduct interviews as part of the data collection process.

Yours faithfully

  
Dr. M. Zemberere  
A/CHAIRPERSON – DEPARTMENT OF SOCIAL WORK



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## Kuda final

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### ORIGINALITY REPORT

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The Chief Medical Officer  
Chitungwiza Central Hospital  
CHITUNGWIZA

Dear Sir

**RE: REQUEST FOR PERMISSION TO CONDUCT A RESEARCH AT CHITUNGWIZA HOSPITAL  
MUZARIRI KUDAKWASHE KELVIN (B190685 B) DEPARTMENT OF SOCIAL WORK**

I hereby request for your permission to undertake a research entitled: **(An Extensive Inspection of barricades being forced by adolescents living with HIV/AIDS adhering to Antiretroviral Therapy concurrently proposing effective approaches to mitigate these challenges. A Perspective of Healthcare supplies in Zimbabwe; A case study of Chitungwiza Central Hospital.**

The study is two-fold in that it looks at the barriers to treatment adherence but at the same time seeks to establish the most effective approaches/strategies to improve adherence to treatment.

As a final year student in Social Work, the research is my contribution to community knowledge by engaging experts in the field and through the findings the society will benefit.

I look forward to a favorable response to enable me to engage and benefit from the perspectives of Health Care Providers.

Yours faithfully

*KMuziri*

Kudakwashe Kelvin Muziri



*Dwango*

0774 66 09 29

9/6/23

