

**Prevalence and predictors of lifetime alcohol use among HIV-positive Malawian adolescents attending selected Anti-Retroviral Treatment clinics in Blantyre, Malawi.**

By

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## ABSTRACT

**Background:** Alcohol use among adolescents living with HIV attending Anti-Retroviral Treatment clinics is a common occurrence in many low- and middle-income countries, yet data is scarce from Malawi. Adolescents living with HIV (ALHIV) are more likely to use alcohol because of psycho-social challenges associated with HIV status. The purpose of this study was to determine the prevalence and predictors of alcohol use among Malawian ALHIV attending selected Anti-Retroviral Treatment clinics in Blantyre, Malawi.

**Methods:** A cross-sectional research study design was used and three hundred and seventy-six adolescents living with HIV (attending Anti-Retroviral Treatment clinics) were recruited. The study participants were aged between 10-19 years. ALHIV participants were asked about their lifetime alcohol use and other psychosocial issues such as depression and anxiety symptoms, stigma, social support, peer pressure, post-traumatic stress disorder (PTSD), community factors, and family factors. For categorical and continuous variables, frequency distributions and descriptive statistics were computed. A multivariate logistic model was developed to determine factors associated with any life-time alcohol use.

**Results:** The study found that the overall prevalence of lifetime alcohol use was 17.8% (n=67) and that other psycho-social problems were prevalent among ALHIV. Of the entire sample, 27.7% (n=104) reported depressive symptoms and 23.7% (n=89) reported symptoms of anxiety. Also, 70.5% (n=265) reported experiencing a traumatic event with 31.7% (n=119) reporting symptoms of PTSD. In the unadjusted model, seven variables were significantly associated with life-time alcohol use. Being female decreased the odds of reporting any lifetime alcohol use compared to being male (OR=0.51, 95% CI 0.29, 0.88). As age increased the odds of lifetime alcohol use also increased by 18% (OR=1.18, 95% CI 1.02, 1.31). Participants who completed secondary school had increased odds of any lifetime alcohol use by 100% compared to those who had completed primary school only (OR=2.00, 95% CI 1.16, 3.47). ALHIV with symptoms of PTSD had increased odds of any life time alcohol use by 85% (OR=1.85, 95% CI 1.08-3.18), while participants who reported having more social support from a significant other (OR=0.87, 95% CI 0.77, 0.98), family (OR=0.83, 95% CI 0.72, 0.97) or friends (OR=0.83, 95% CI 0.72, 0.96) were less likely to report any lifetime alcohol use. In the adjusted

model, gender remained significantly associated with any lifetime alcohol use, where females were less likely to have used alcohol than male participants (OR=0.53, 95% CI 0.30, 0.94).

**Conclusion:** This is the first study to show prevalence of any alcohol use among Malawian ALHIV attending selected Anti-Retroviral Treatment clinics in Blantyre, Malawi. The prevalence of any life-time alcohol use among this adolescent group was 18%. This study suggests that males were more likely to report lifetime alcohol use compared to females.. Arguably, male ALHIV in this study might have experienced psycho-social challenges which made them more at risk of alcohol use than females; this may be required to be explored further in the study context. The results of this study may inform future studies and policy in the formation of effective prevention and management of symptoms of common mental health conditions among ALHIV to improve wellbeing in this group of adolescents living with a chronic condition.

**Key Words:** Prevalence, Predictors, Alcohol use, HIV-positive, Adolescents, Anti-Retroviral Treatment, Clinics, Blantyre, Malawi.

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## LIST OF ABBREVIATIONS

1. **AGAS** Antiretroviral General Adherence Scale
2. **ALHIV** Adolescents living with HIV
3. **ALHIV-SS** Adolescents Living with HIV- HIV Stigma Scale
4. **ART** Anti-Retroviral Treatment
5. **ASSIST** Alcohol, Smoking and Substance Involvement Screening Test
6. **AUDIT** Alcohol Use Disorder Identification Test
7. **CESD-10** Center for Epidemiology Studies- Depression scale – ten item
8. **GAD-7** Generalized Anxiety Disorder scale - 7-item.
9. **HICs** High Income Countries
10. **HIV** Human Immunodeficiency Virus (HIV)
11. **LMICs** Low and Middle Income Countries
12. **MICs** Middle Income Countries
13. **MSPSS** Multidimensional Scale of Perceived Social Support
14. **PLHIV** People Living with HIV
15. **SSA** Sub-Saharan Africa
16. **STI** Sexually Transmitted Infection
17. **YLHIV** Young People Living with HIV
18. **YRBSQ** Youth Risk Behaviour Survey Questionnaire

# CHAPTER 1

## INTRODUCTION

### 1.1 Context

Alcohol use among adolescents living with HIV (ALHIV) is a growing public mental health challenge globally (Birungi et al., 2021; Kalichman et al., 2019; Nouaman et al., 2018; Olagunju et al., 2017; Prasitsuebsai et al., 2018; Umar et al., 2019). The common factors associated with alcohol use among ALHIV include socio-demographics such as age, gender, religion, and family (Francis et al., 2015; Kuteesa et al., 2020; Madu & Matla, 2003; Swahn et al., 2020; Tyler et al., 2016), depression (Murphy, Durako, et al., 2001), anxiety (Birungi et al., 2021), post-traumatic stress disorder (PTSD) (Birungi et al., 2020), traumatic events (Birungi et al., 2020), poor social support (Swahn et al., 2019), stigma (Earnshaw, Kidman, & Violari, 2018; Kekibina, 2017), and peer pressure (Huang et al., 2014).

Globally, a number of studies have reported on the prevalence of any alcohol use among YLHIV including ALHIV, which varies from 4.3% to 66.7% (Bertholet et al., 2010; Birungi et al., 2021; Kalichman et al., 2019; Nouaman et al., 2018; Olagunju et al., 2017; Prasitsuebsai et al., 2018; Samet & Walley, 2010; Umar et al., 2019). A search for studies in Malawi exploring the prevalence of alcohol use amongst YLHIV in Malawi reveals limited literature on the subject as only one study was identified (Umar et al., 2019). This study was conducted among 450 YLHIV aged between 12–24 years out of 540 YLHIV attending 6 ART clinics for HIV care. They were randomly sampled in both urban and rural settings of six districts of Malawi, and the investigators found that 66.7% of YLHIV reported any use of alcohol. Alcohol use was measured through a direct question about whether the participant had ever consumed alcohol. This study was conducted in the following districts: Blantyre, Chiradzulu, Chikwawa, Mwanza, Mangochi and Zomba. Further, the study reported that 33.3% of YLHIV who reported “any use” were also found to have unsuppressed HIV viral loads (Umar et al., 2019). The difference in prevalence between this study and international studies could be secondary to several factors including the age of participants and time frame of the alcohol use survey items. Also, the sample was drawn from only six districts and one region of the country, thus extrapolating the results to the larger Malawian context is difficult. Data from Malawi is scarce

regarding the prevalence of alcohol use among ALHIV and currently, no published data from Blantyre, Malawi is available.

In addition, the prevalence of the individual psychosocial factors associated with alcohol use among ALHIV identified in the literature vary from one country to another. These include, but are not limited to: a) depression, it varies from 18.9% to 46% (Ayano, Demelash, Abraha, & Tsegay, 2021; Kemigisha et al., 2019; Kim et al., 2014; Lewis et al., 2015), b) anxiety, it varies from 2.2% and 58.5% (Durteste et al., 2019; Mutumba et al., 2015; Olashore et al., 2021; Too et al., 2021; West et al., 2019); trauma, it varies from 10% and 78.2% (Dow et al., 2016 & Merrill et al., 2020); d) stigma, it varies from 5% to 89% (Kim et al., 2017b; Kumar et al., 2014; Swendeman et al., 2006). However, data from Malawi is scarce regarding the risk factors associated with alcohol use among ALHIV and currently, no published data from Blantyre, Malawi is available.

Problem alcohol use is a multifaceted behavioral condition that manifests itself in a variety of ways in a variety of contexts. Alcohol can be harmful to ALHIV users, resulting in poor ART adherence, and mental and physical suffering (Davis et al., 2018; WHO, 2015). Furthermore, in terms of Anti-Retroviral Treatment (ART) adherence and other health outcomes. Alcohol use can result in failure to stay adherent to ART and missing ART prescriptions (Brittain et al., 2019; Kim et al., 2014; Kim et al., 2017b), having unprotected sex or have sex with multiple partners, or being involved in violent encounters (Elkington et al., 2015; Gamarel et al., 2018). Recognition for these effects of alcohol use among ALHIV would help to reduce poor ART adherence, violence, unprotected sex, and have improved health among ALHIV in Blantyre, Malawi (Brittain et al., 2019; Kim et al., 2014; Kim et al., 2017b). In addition, in Malawi as well as other parts of the world; adolescents experience several challenges including abuse, poverty, poor social support, and psychological issues (Adger & Saha, 2013; Kim et al., 2018; Patrick & Schulenberg, 2014; Ryan et al., 2010). Teenagers who experience these difficulties in their adolescence may have poor mental health and turn to substance use like alcohol use as a coping mechanism (Adger Jr & Saha, 2013; Kim et al., 2018; Marshall, 2014; Wills, 2013).

## **1.2 Rationale of the study**

Globally, the prevalence of alcohol use among ALHIV varies from 8% to 66.7% (Bertholet et al., 2010; Nouaman et al., 2018; Olagunju et al., 2017; Samet & Walley, 2010). The literature reveals that psycho-social factors like depression, peer pressure, anxiety, and poor family support are associated with alcohol use among ALHIV (Alperen et al., 2014; Birungi et al., 2020; Murphy et al., 2001; Starks et al., 2020). Additionally, ALHIV who use alcohol are at risk of poorly adhering to ART (Kim et al., 2017a). Therefore, understanding the prevalence and associated factors of alcohol use among ALHIV is important to be able to identify needs for health and social interventions to improve the wellbeing of ALHIV. However, there is a gap in the literature regarding prevalence and factors associated with alcohol use in Malawian ALHIV. The findings of this study may not only be used to inform prevention interventions for alcohol use among this vulnerable population, but may also provide input for policy development. This is important, given that the current Malawi mental health policy does not have clear policy guidance on management of alcohol use among ALHIV (MalawiMHP, 2020).

## **1.3 Study aims and objective**

The main aim of the study was to determine the prevalence and factors associated with lifetime alcohol use among HIV positive Malawian adolescents attending selected ART clinics in Blantyre, Malawi.

### **1.3.1 Specific objectives**

- To determine the prevalence of lifetime alcohol use among ALHIV attending ART clinics in Blantyre, Malawi
- To examine the associations between individual, family and community characteristics and any alcohol use among ALHIV attending ART clinics in Blantyre, Malawi

## **1.4 Thesis Outline**

The next chapter examines the international and global literature on the prevalence and risk factors associated with ALHIV alcohol use. Chapter 3 describes the methodology used in the current study to collect data to meet the study's objectives. The study's findings are presented in Chapter 4, and Chapter 5 discusses the study findings in relation to reviewed related literature, presents implications for policy and practice, and concludes with some recommendations for future research.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter begins by describing the literature on prevalence of the Human Immunodeficiency Virus (HIV) among adolescents with a focus on sub-Saharan Africa (SSA). This is followed by a description of the importance of adherence to Anti-Retroviral Treatment (ART), the prevalence of sub-optimal adherence to ART and several risk factors for sub-optimal adherence. Alcohol as a key risk factor is highlighted. Thereafter, data on the measurement of alcohol use among adolescents living with HIV (ALHIV) is discussed. This followed by a review of the global and local prevalence of alcohol use among adolescents, and the risk factors associated with adolescent alcohol use. To find relevant literature, various search techniques were used. Searches were done in PubMed, Google Scholar, and following up references from articles obtained. The broad search for literature used the following key words (prevalence of alcohol,) and (adolescents living with HIV, predictors or risk factors of alcohol use). The study only included studies published in English.

#### **2.2 The prevalence of HIV among adolescents**

The high percentage of HIV among adolescents is a global health threat. The World Health Organization (WHO) defines an adolescent as any person who is aged between 10 and 19 years (WHO, 2015). Global estimates show that between 1.6 and 2.1 million adolescents aged 10–19 years are living with HIV, with more than 80% of these young people living in SSA (Adejumo et al., 2015; Ammon et al., 2018; Slogrove & Sohn, 2018; UNICEF, 2019).

Studies from South Africa, Zambia, and Botswana found that the prevalence of HIV among adolescents ranged from 4% to 7.9% (Botswana-DHS, 2017; SouthAfrica-DHS, 2019; Zambia-DHS, 2015). These findings are similar to studies conducted in Malawi where the prevalence of HIV among adolescents ranged from 2.15% to 8.5% (Ahmed et al., 2017; Chihana et al., 2018; Malawi-DHS, 2017; Mensch et al., 2019; Price et al., 2018). The variation in prevalence of HIV could be due to the location, sampling strategies or culture where studies took place in Malawi (Chutuape et al., 2009; Xia et al., 2006).

### **2.3 Response to HIV in Malawi**

The Malawian government has mounted a proactive response to HIV infection, aligned with UNAIDS (2020) global target of 90-90-90 which states that by 2020 90% of HIV infected persons have to be aware of their HIV status, 90% of the HIV-infected persons who have the knowledge of their HIV status have to be on ART and 90% of those on ART have to achieve viral suppression defined as HIV viral load of < 1,000 of HIV RNA copies/ml (UNAIDS, 2014,Page75-81). ART is a treatment for someone who is HIV positive to control the viral replication, thus suppressing the virus to achieve undetectable levels in the bloodstream (WHO, 2015). The benefits include maintaining good health in HIV-infected individuals and decreasing the spread of the virus to others; thus, adherence to ART is essential (Kim, Gerver, Fidler, & Ward, 2014). In addition, the Malawi HIV/AIDS guidelines state that any person who has been diagnosed with HIV is to receive ART; this is in line with UNAIDS (2020) global target (Malawi-MoH, 2016). In Malawi, every effort is made to minimize the time between diagnosis and the initiation of ART.

### **2.4 ART adherence**

Good ART adherence is one of the goals of HIV management among PLHIV to avoid progression of the disease (WHO, 2015). There are several consequences of poor ART adherence among ALHIV. First, poor ART adherence results in sub-optimal viral suppression which allows advancement of the disease and causes susceptibility to infections in general, opportunistic infections like pneumocystis jirovecii pneumonia and tuberculosis, and cancers which take advantage of the body's impaired immune response (Davis et al., 2018; WHO, 2015). Second, a decline in health status can lead to a decrease in energy for day- to- day activities, like going to school for children and adolescents, with further consequences for their wellbeing in adulthood and future employment (Hudelson & Cluver, 2015a; Iacob, Iacob, & Jugulete, 2017; Ndiaye et al., 2013). Third, if PLHIV are not adhering to ARTs they are more likely to spread HIV to sexual partners (UNAIDS, 2014, Page 75-81). Fourth, if PLHIV are not following their ART regimen as prescribed, the virus is likely to become resistant to ART (WHO, 2015).

ART adherence among ALHIV varies substantially, partly due to the differences in definition. Some have defined poor ART adherence as taking ART drugs at < 95% of the recommended dosage over a month (Bijker et al., 2017; McBride et al., 2019) and others have defined poor ART adherence as ALHIV self-reporting missing any doses in the last 7 days, caregivers rating overall adherence as suboptimal, or a recent test of HIV-RNA viral load of >1000 copies per ml (Xu, Munir, Kanabkaew, & Le Coeur, 2017). In addition, other authors define poor ART adherence as participants reporting any missed doses in the past week or month (Kim et al., 2017a).

Research has found that the prevalence of ALHIV who are poorly adhering to ART varies from 9.6% to 65% (McBride et al., 2019; Nicolette Nabukeera-Barungi et al., 2015). For example, a systematic review and meta-analysis done by Kim et al. (2014) explored ART compliance among ALHIV globally. In total 50 articles from 53 countries were included in the analysis. Investigators reported that out of 10,725 participants, 37.7% were categorized as poorly adhering to ART. In this study, inadequate ART adherence was defined as an adolescent taking ART at less than 85% of recommended ART doses on a self-reported ART adherence measure (Kim et al., 2014). Furthermore, the review found that the highest prevalence of sub-optimal ART adherence was in North America (47%), whereas in Europe and South America adherence was 38% and the lowest levels of sub-optimal adherence (16%) were found in Africa and Asia (Kim et al., 2014).

Several studies conducted in SSA countries, including Malawi, reveal that ALHIV poorly adhere to ART (Feldman et al., 2013; Gross et al., 2015; N. Nabukeera-Barungi et al., 2015). For example, a cross-sectional study conducted among 519 ALHIV aged between 12 and 18 years attending ART clinics in Lilongwe and Zomba established that 45% of ALHIV had missed doses in the past week or month, suggesting poor adherence to ART. In this study, ART adherence was defined as adolescents missing doses in the past week or month (Kim et al., 2017a).

In addition, a study done by Umar et al. (2019) among 209 randomly sampled YLHIV aged between 13 and 24 years in 6 southern districts of Malawi found that 17% of the YLHIV were not adhering to ART, where ART adherence was defined as taking less than 80% of their prescribed ART as measured by a pill count. Furthermore, a retrospective chart review study done by McBride et al. (2019) at 16 Partners in Hope teen clubs in Lilongwe district, among

589 ALHIV aged between 15–19 years, found that 65% of ALHIV had poor ART adherence, this time defined as taking ART at < 95% of prescribed dose.

Many studies have highlighted the various risk factors that are related to ART non-adherence among ALHIV (Shubber et al., 2016; Simoni et al., 2007), including a few studies conducted in Malawi (Kim et al., 2017b; McBride et al., 2019). They relate primarily to medication-related factors like too many pills to take, caregiver and family factors like disorganized family and low caregiver involvement (Hudelson & Cluver, 2015b) and mental health problems such as depression and anxiety (Murphy et al., 2001; Radloff, 1977; Reisner et al., 2009). A close look at the literature highlights that alcohol use is one of the key risk factors for non-adherence among ALHIV.

Alcohol use among ALHIV can have harmful effects for those who use it, such as failure to stay adherent to ART and missing ART prescriptions (Brittain et al., 2019; Kim et al., 2014; Kim et al., 2017b), having unprotected sex or have sex with multiple partners, or being involved in violent encounters (Elkington et al., 2015; Gamarel et al., 2018). Recognition for these effects of alcohol use among ALHIV would help to reduce poor ART adherence, violence, unprotected sex, and have improved health among ALHIV in Blantyre, Malawi (Brittain et al., 2019; Kim et al., 2014; Kim et al., 2017b).

## **2.5 Measurement of self-reported alcohol use**

Alcohol use among adolescents is measured in a number of ways (Alperen et al., 2014; Birungi et al., 2020; Conner et al., 2013; Kuteesa et al., 2020; Murphy, Durako, et al., 2001; Musyoka et al., 2020; Swahn et al., 2020). Firstly, alcohol use has been assessed descriptively by asking about the use of any alcohol in a specific time frame (Alperen et al., 2014; Conner et al., 2013). For example, alcohol use has been measured by asking about the frequency of lifetime alcohol use or any use in the past 30 days (Alperen et al., 2014; Conner et al., 2013).

Secondly, alcohol use has been assessed using validated tools that often include frequency and quantity as well as items interrogating alcohol-related harms. Examples of validated tools include the Alcohol, Smoking and Substance Involvement Screening Test for Young people (ASSIST-Y) (Government-of-South-Australia, 2017). The ASSIST consists of eight questions covering tobacco, alcohol, cannabis, cocaine, amphetamine-type stimulants (including ecstasy) inhalants, sedatives, hallucinogens, opioids and 'other drugs'. ASSIST-Y questionnaire is a WHO questionnaire and measures substance use in young people aged between 10-17 years



and can be used in primary health care settings (Government-of-South-Australia, 2017). The ASSIST-Y questionnaire is a 7-item tool. It categorizes and measures alcohol and substance use into three different levels over the past 3 months: No risk (score 0-1), Moderate risk (score 2-11) and High risk (score 12-above) (Government-of-South-Australia, 2017). Also, the global school-based student health survey (GSHS) has served as a reliable tool to measure the health of young people across the world in a school environment (WHO, 2021). The Alcohol Use Disorder Identification Test (AUDIT) (WHO, 2001). AUDIT is a 10-item screening tool developed by the World Health Organization (WHO) to assess alcohol consumption, drinking behaviors, and alcohol-related problems. A score of 8 or more is considered to indicate hazardous or harmful alcohol use. The AUDIT has been validated across genders and in a wide range of racial/ethnic groups and is well-suited for use in primary care settings. and the CAGE questionnaire (Ewing, 1984), it is a 4 item questionnaire that allow researchers and clinicians to categorize adolescents by risk profiles. CAGE are scored 0 or 1, with a higher score an indication of alcohol problems. A total score of 2 or greater is considered clinically significant. The highlighted tools are commonly used when measuring alcohol use. However, this study adopted ASSIST-Y, and Global School-based Student Health Survey (GSHS).

## **2.6 Prevalence of alcohol use among YLHIV**

A number of studies have reported on the prevalence of alcohol use among YLHIV including ALHIV, which varies from 4.3% to 66.7% across the globe (Alperen et al., 2014; Conner et al., 2013; Bertholet et al., 2010; Birungi et al., 2021; Samet & Walley, 2010; Umar et al., 2019). Although studies that specifically focus on ALHIV are less available, some studies have investigated the prevalence of alcohol use among ALHIV and YLHIV specifically (Alperen et al., 2014; Brittain et al., 2019; Gamarel et al., 2016).

In SSA, a few studies have been conducted investigating the prevalence of alcohol use among ALHIV and the prevalence ranged from 4.3% to 47.4 % (Birungi et al., 2021; Brittain et al., 2019; Swahn et al., 2019). A search for studies in Malawi exploring the prevalence of alcohol use amongst YLHIV in Malawi reveals a limited literature on the subject as only one study was identified (Umar et al., 2019). Only the Umar et al study, conducted among YLHIV between 12 and 24 years old in six districts of Malawi, was identified; in this study, 66.7% reported any use of alcohol. Thus, data from Malawi is scarce regarding the prevalence of alcohol use among ALHIV and currently, no published data from Blantyre, Malawi is available.

## **2.7 Risk factors for alcohol use among ALHIV**

To develop appropriate strategies for alcohol use prevention amongst ALHIV, an understanding of the associated risk and protective factors is essential. Research suggests that there are several risk factors associated with alcohol use among adolescents (Gillman et al., 2018; Heron et al., 2012; Maserumule, Skaal, & Sithole, 2019). This section will review literature comprising risk factors associated with alcohol use among adolescents in general and will also highlight studies among ALHIV where available (see Table 1), given the limited research in this area. Although, the risk factors associated with alcohol use among adolescents may vary across studies, they can be categorised at the individual, family and community level (Bränström et al., 2008; Morojele et al., 2016; Shih et al., 2015).

### **2.7.1 Individual factors**

In both HICs and LMICs male gender has been found to be associated with alcohol use among adolescents (Fatoye & Morakinyo, 2002; Francis et al., 2015; Kuteesa et al., 2020; Madu & Matla, 2003; Morojele et al., 2016; Musyoka et al., 2020; Riva et al., 2018; Swahn et al., 2020; Tyler et al., 2016). The available studies from African countries have reported similar findings (Birungi et al., 2020; Fatoye & Morakinyo, 2002; Francis et al., 2015; Kuteesa et al., 2020; Madu & Matla, 2003; Morojele et al., 2016; Riva et al., 2018; Swahn et al., 2020; Tyler et al., 2016). For example, five cross-sectional studies conducted in Uganda, Kenya, Botswana and Tanzania among youths aged between 14 and 24 years found that being male was associated with alcohol use among adolescents (Francis et al., 2015; Kuteesa et al., 2020; Riva et al., 2018; Swahn et al., 2020). Further, in both HICs and LMICs being an older age group of adolescents has been found to be associated with alcohol use among adolescents (Bendtsen, Damsgaard, Tolstrup, Ersbøll, & Holstein, 2013; Francis et al., 2015; Gamarel et al., 2016; Kuteesa et al., 2020; Morojele et al., 2016; Swahn et al., 2020). In addition, studies conducted in both HICs and LMICs indicate that socio-economic status (Birungi et al., 2020; Bränström et al., 2008) and being a casual labourer (Francis et al., 2015) were associated with alcohol use among adolescents in general.

In LMICs being a non-Muslim has been found to be associated with alcohol use among adolescents (Birungi et al., 2020; M. O. Kuteesa et al., 2020; Maserumule et al., 2019). LMICs such as Uganda and South Africa studies have found that compared to young people who identify as being Muslim, being a Christian is positively associated with alcohol use among adolescents (Birungi et al., 2020; Kuteesa et al., 2020; Maserumule et al., 2019). Among

ALHIV specifically, a study in Uganda found that compared to ALHIV who identify as being Muslim, being a Christian is associated with alcohol use among ALHIV (Birungi et al., 2020).

Looking at adolescents with HIV specifically, most studies have been conducted in HICs, with limited data being available from LMICs (Alperen et al., 2014; Birungi et al., 2020; Conner et al., 2013; Elkington et al., 2015; Gamarel et al., 2016; WHO, 2014). For instance, five studies conducted in USA and Uganda reported that being male (Conner et al., 2013; Gamarel et al., 2016), being employed (Gamarel et al., 2016) and living in an urban area (Birungi et al., 2020) were associated with alcohol use among YLHIV. There are a number of reasons why male adolescents may be more likely to drink alcohol, including biological characteristics like genetic risk, and psycho-social factors like positive drinking expectancies based on traditional gender roles, and personality characteristics (Schulte et al., 2009).

**TABLE 1: RISK FACTORS ASSOCIATED WITH ALCOHOL USE AMONG YOUNG PEOPLE LIVING WITH HIV**

Author & Year published	Country	Age (years)	Sample size	Instrument (s) used	Study design	Title	Statistical method	Risk factors and Results
<b>INDIVIDUAL RISK FACTORS ASSOCIATED WITH ALCOHOL USE AMONG YOUNG PEOPLE LIVING WITH HIV</b>								
Murphy et al (2001)	USA	13-19	323	Frequency of alcohol use in the past 3 months and CAGE questionnaire	Observational study	No change in health risk behaviors over time among HIV infected adolescents in care: role of psychological distress	Descriptive statistics;  Generalized Estimating Equations (GEE), and Ordinal logistic regression models	Frequent alcohol use was associated with depression [OR; 1.87, 95% CI (1.31 – 2.67), P=.0006]
Conner et al, (2013)	USA	13- 21	166	Alcohol use was assessed based on self-report of any alcohol use over a past month.	Cross-sectional study (used baseline data from an intervention study)	Prevalence and Predictors of Drug Use Among Adolescents with HIV Infection Acquired Perinatally or Later in Life	Descriptive statistics;  Chi-square test; and multiple logistic regression models	57.2% used alcohol; life time alcohol use was associated with being older [OR; 1.3, CI (1.1– 1.5), (p ≤0.01)]
Gamarel et al (2016)	USA	12-26	2216	ASSIST questionnaire assessed alcohol use over	Cross-sectional study	Prevalence and correlates of substance use among	Multivariate logistic	21.3% used alcohol. Alcohol use was associated with being older [OR=5.5;95%, CI (3.95, 7.83)], behaviorally infected youth [OR=3.73, 95%, CI (2.93, 4.76)],

				the past 3 months.		youth living with HIV in clinical settings	regression models	MSM [OR=1.90; 95%, CI (1.59, 2.27)], being male [OR=1.59,95%, CI (1.30, 1.95)] and employed [OR= .76, 95%, CI (1.43, 2.17)]
Alperen et al (2014)	USA	7-16	511	Alcohol use was assessed based on frequency of self-reports of lifetime alcohol use.	Prospective cohort study	Prevalence of and risk factors for substance use among perinatally human immunodeficiency virus-infected and perinatally exposed but uninfected youth	GEE models with a logistic link were used to estimate odds ratios (ORs) for alcohol use	42% used Alcohol and was associated with higher academic achievement (aOR=1.03; 95% CI=1.00, 1.06; aOR=1.02; 95% CI=1.00, 1.05), advanced emotional problems [aOR: 1.04; 95% CI: 1.00 - 1.07] and higher severity conduct problems [aOR: 1.03; 95% CI: 1.00-1.06]
Birungi et al (2020)	Uganda	12-17	479	A six-item Alcohol and Substance Use self-reported questionnaire. It is part of Youth Inventory-4R (YI-4R).	Cross-sectional study	Substance use among HIV-infected adolescents in Uganda: rates and association with potential risks and outcome factors	Multiple logistic regression models	4.3% used alcohol. Alcohol use was associated with residing in Urban area [(aOR: 3.86(1.67–12.42)] Female [aOR :1.14 (0.50–2.57)], PTSD [OR:4.65 (2.07-0.44)], Christian [aOR :1.13 (0.49–2.57)], Orphan hood [aOR: 1.07 (0.47–2.43)] PTSD [aOR: 3.78 (1.63–8.77)]. However, alcohol use was not associated with depression [aOR: 0.64 (0.27–1.47)] and anxiety [aOR: 0.54 (0.23–1.26)]
Earnshaw et al (2018)	South Africa	13- 24	250	Alcohol use was assessed using CRAFFT Screening Questionnaire	Cross-sectional survey	Stigma, Depression, and Substance Use Problems among Perinatally HIV-	Bivariate, multivariate and Poisson regressions analysis were	Alcohol use was associated with Internalized Stigma [1.04 (0.93, 1.15)] and Associative Stigma [1.37 (1.16, 1.61)]

						Infected Youth in South Africa	conducted. Variance inflation factor = 1.19	
<b>FAMILY FACTORS ASSOCIATED WITH ALCOHOL USE AMONG YOUNG PEOPLE LIVING WITH HIV</b>								
Alperen et al (2014)	USA	7-16	511	Alcohol use was assessed via audio computer-assisted self-interview (ACASI).	Prospective cohort study	Prevalence of and Risk Factors for Substance Use Among Perinatally HIV-Infected and Perinatally Exposed but Uninfected Youth	Generalized estimating equations (GEE), t-tests, and chi-square tests were used	Alcohol use was associated with alcohol at home [aOR:1.81 (1.13, 2.89), Any substance use in home [aOR:1.82 (0.79, 4.23)], Parent-child relationship satisfaction < 40 [aOR:2.35 (0.84, 6.56)]
Birungi et al (2020)	Uganda	12-17	479	A six-item Alcohol and Substance Use self-reported questionnaire. It is part of Youth Inventory-4R (YI-4R).	Cross-sectional study	Substance use among HIV-infected adolescents in Uganda: rates and association with potential risks and outcome factors	Multiple logistic regression models,	4.3% used alcohol. Alcohol use was associated with caregiver psychological distress [ORs: 2.48, 95% CI (1.05–5.91), P =.039, aOR: 2.62, 95% CI (1.06–6.45), P = .037] and the psychiatric diagnosis of post-traumatic stress disorder of a care giver [ ORs: 4.65, 95% CI (2.07–10.44), P =< .001, aOR: 3.78, 95% CI (1.63–8.77), P = .002]
Swahn et al (2019)	Uganda	12–18	1134	CAGE questionnaire	Cross-sectional survey	Psychosocial correlates of self-reported HIV among youth in the slums of Kampala	Chi-Square Tests, Bivariate and multivariable logistic regression	Alcohol use was associated with living on the streets ( $\chi^2 = 10.14$ , $df = 1$ , $p = 0.002$ )

Pufall et al., (2017)	Zimbabwe	15–19	3274	Alcohol use was assessed based on frequency of self-reports over the past 30 days of alcohol use.		Education, substance use, and HIV risk among orphaned adolescents in Eastern Zimbabwe	SES, Multivariable regressions	6.4% used alcohol. Alcohol use was associated with being a paternal orphan [aOR:1.1 (0.67–1.9)]
<b>COMMUNITY FACTORS ASSOCIATED WITH ALCOHOL USE AMONG YOUNG PEOPLE LIVING WITH HIV</b>								
Birungi et al (2020)	Uganda	12-17	479	A six-item Alcohol and Substance Use self-reported questionnaire. It is part of Youth Inventory-4R (YI-4R).	Cross-sectional study	Substance use among HIV-infected adolescents in Uganda: rates and association with potential risks and outcome factors	Multiple logistic regression models	4.3% used alcohol use, alcohol use was associated with living in urban areas [ORs: 3.86, 95% CI (1.44–10.36), P = .007, aOR: 4.57, 95% CI (1.67–12.42), P = .003]
Conner et al, (2013)	USA	13- 21	166	Alcohol use was assessed based on self-report of any alcohol use over a past month.	Cross-sectional study (used baseline data from an intervention study)	Prevalence and Predictors of Drug Use Among Adolescents with HIV Infection Acquired Perinatally or Later in Life	Descriptive statistics; Chi-square test; and multiple logistic regression models	57.2% of used alcohol, life time alcohol use was associated with being Non-Black [ORs:5.4, 95% CI (2.1–14)]

This section will describe some of the most known individual psychosocial risk factors of alcohol use among adolescents identified in the literature. These include, but are not limited to: a) depression, b) anxiety; c) stigma, and d) trauma.

The reviewed literature indicates that depression and anxiety are the common psychological problems among adolescents (Kemigisha et al., 2019; Lewis et al., 2015; Too et al., 2021). The prevalence of depression among ALHIV varies from 18.9% to 46% (Ayano et al., 2021; Kemigisha et al., 2019; Kim et al., 2014; Lewis et al., 2015) while the prevalence of anxiety among ALHIV varies from 2.2% and 58.5 % (Durteste et al., 2019; Mutumba et al., 2015; Olashore et al., 2021; Too et al., 2021; West et al., 2019).

Studies indicate that there is an association between depression and alcohol use among adolescents (Balogun et al., 2014; Johannessen et al., 2017; Nalugya-Sserunjogi et al., 2016; Torikka et al., 2001; Unger et al., 2001). Possible reasons for this association between depression and alcohol use is that depression increases the risk of alcohol use as it affects cognitive functioning, often reducing the motivation and increasing chance of hopelessness and as a result adolescents may use alcohol as a coping mechanism of depression [OR: 1.9, 95% CI (1.5–2.5)] (Johannessen et al., 2017). In HICs, three cross-sectional studies conducted in Norway, China and Finland among adolescents aged between 10-19 years found that depression was associated with alcohol use [( $p=0.02$ ); ( $b=0.26$ )] (Unger et al., 2001). Similar findings have been observed in LMICs. Balogun et al. (2014) conducted a multi-national study among adolescents aged between 13-15 years in fourteen LMICs and found that alcohol use was associated with depression. In addition, a cross-sectional study in Morocco among adolescents aged between 13-16 years found that depression was associated with alcohol use [OR: 13.87, 95% CI (8.43–22.81)] (Ben El Jilali et al., 2019). Also, a cross-sectional study in Uganda among adolescents aged between 13-16 years found that depression was associated with alcohol use [OR: 2.30, 95% CI (0.53–9.90)] (Kuteesa et al., 2020). While a number of studies above highlight risk factors associated with any alcohol use among adolescents in general in both HICs and LMICs, only one study looked at factors associated with risky alcohol use among ALHIV (Murphy, Durako, et al., 2001). This study was conducted in the USA among 323 conveniently sampled ALHIV aged between 13 and 19 years attending health care at fifteen clinical sites (Murphy, Durako, et al., 2001). Researchers found that being depressed



was associated with frequent problematic alcohol use among ALHIV. However, a cross-sectional study in Uganda among ALHIV found that major depressive disorder was not associated alcohol and substance use among ALHIV (Birungi et al., 2020). For those struggling with depression, alcohol may be used to suppress symptoms related to their condition, such as irritability, loss of interest, restlessness and insomnia (Schuckit, 1996).

In HICs, four cross-sectional studies conducted in Brazil, USA, and Norway among young people found that anxiety was associated with any and risky use of alcohol (Costa Mde et al., 2013; Johannessen et al., 2017; Wu et al., 2010; Zimmermann et al., 2003). There were similar findings in LMICs (Balogun et al., 2014; Oppong Asante & Kugbey, 2019). Despite anxiety being one of the common psychological problems among ALHIV (Kagee et al., 2019; Kinyanda et al., 2019; Le Prevost et al., 2018; Mellins et al., 2012), only one study looked at association between anxiety and alcohol use among ALHIV attending health care (Birungi et al., 2021). The researchers found no association between anxiety and alcohol use among ALHIV. The association between alcohol use and anxiety could be due to self-medication pathway in order to cope with anxiety disorders, leading to co-occurring of alcohol use (Smith & Randall, 2012).

Also, the prevalence of HIV related stigma among ALHIV varies from 5% to 89% (Kim et al., 2017b; Kumar et al., 2014; Swendeman et al., 2006). In LMICs, two cross-sectional studies conducted in South Africa and Uganda among YLHIV found that HIV-related stigma was associated with alcohol use (Earnshaw, Kidman, & Violari, 2018; Kekibina, 2017). Further, the types of HIV related stigma that were associated with alcohol use in South Africa were: internalized stigma and associative stigma, whereby undermine the wellbeing of YLWH who were born with HIV (Earnshaw et al., 2018). The association between alcohol use and stigma among ALHIV use could be due to feelings of stigma (Wardell et al., 2018).

In addition, studies conducted in both HICs and LMICs indicate that there is an association between trauma and alcohol use among adolescents (Dube et al., 2006; Oliveira Filho et al., 2013; Paiva et al., 2015; Schiff, 2006; Schroeder & Polusny, 2004). Trauma has been associated with countless adolescent harms including poor coping skills, and risky alcohol use (Magidson et al., 2017). In HICs, six cross-sectional studies conducted in United Kingdom and USA among adolescents aged between 10-19 years found that trauma was associated with alcohol use (Dixon et al., 2009; Dube et al., 2006; Oliveira Filho et al., 2013; Paiva et al., 2015; Rowe et al., 2015;

Schiff, 2006; Schroeder & Polusny, 2004; Smith & Saldana, 2013). Similar findings have been observed in LMICs. Three cross-sectional studies conducted in Uganda and South Africa among adolescents aged between 12-19 years found that trauma was associated with alcohol use (Babihuga, 2015; Brook et al., 2011; Magidson et al., 2017). Some studies in South Africa have found that certain types of traumatic experiences, such as those related to violent exposure and victimization, have the strongest association with alcohol use among adolescents (Brook et al., 2011; Magidson et al., 2017). While a number of studies above highlight that trauma is associated with any alcohol use among adolescents in general in both HICs and LMICs, only one study looked at the association between trauma and alcohol use among ALHIV (Birungi et al., 2020). This study was conducted in Uganda among 479 ALHIV aged between 12 and 17 years attending health care at clinical sites (Birungi et al., 2020). Researchers found that having post-traumatic stress disorder was associated with alcohol and substance use among ALHIV (Birungi et al., 2020). The association between alcohol use and post-traumatic stress disorder could be a way to reduce impact of the symptoms PTSD (N. D. Smith & Cottler, 2018).

### **2.7.2 Family factors**

In LMICs, four cross-sectional studies conducted in Botswana, Tanzania, Zambia, and South Africa among adolescents aged between 10-19 years found that having received alcohol from a parent and parental use of psychoactive substances was associated with alcohol use (Bränström et al., 2008; Maserumule et al., 2019; Tyler et al., 2016). Further, these studies conducted in LMICs found that alcohol availability at home (Bränström et al., 2008; Komro et al., 2007; Riva et al., 2018), being allowed to drink alcohol at home (Komro et al., 2007; Tobler et al., 2009), and being an orphan (Meghdadpour et al., 2012) were associated with alcohol use among adolescents in the past week/months/year (Bendtsen et al., 2013; Bränström et al., 2008; Komro et al., 2007; Tobler et al., 2009). In addition, a study by Peltzer and Pengpid (2018) study in Namibia among adolescents aged between 14-16 years found that lack of parental support was negatively associated with alcohol use among adolescents.

Specifically, in ALHIV, family factors have also been noted to be associated with alcohol consumption (alcohol use by care giver in the home and being an orphan). For example, two studies in USA among ALHIV attending clinical care found that alcohol and substance use in the home by caregivers and others was associated with any alcohol use among ALHIV in lifetime or past month (Alperen et al., 2014; Conner et al., 2013). Further, a study conducted in Zimbabwe among ALHIV aged between 15-19 years found that being an orphan was associated with alcohol use (Pufall et al., 2017). Also, a cross-sectional study conducted in Uganda among ALHIV attending HIV clinics found that not living with both parents was associated with any alcohol use among ALHIV in lifetime or past month (Swahn et al., 2019). In addition, a study indicates that poor family support is associated with alcohol use among adolescents. For example, a cross-sectional study conducted in Uganda among ALHIV attending HIV clinics found that not living with both parents was associated with alcohol use among ALHIV (Swahn et al., 2019). The association between alcohol use and poor social support could be due poor monitoring on youth alcohol use (LaFreniere et al., 2022).

### **2.7.3 Community factors**

Several studies in both in HICs and LMICs demonstrate that peer pressure influences adolescents to use alcohol (McMorris et al., 2002; Myers, 2012; Swahn et al., 2018). However, studies that have been done specifically on the association between alcohol use and peer pressure among ALHIV remains limited as compared to adolescents in general. For example, seven studies conducted in USA, South Africa, Viet Nam and Uganda among young people aged between 11-25 years found that alcohol use was positively associated with peer pressure (Chauke, van der Heever, & Hoque, 2015; Kaljee et al., 2004; Maserumule et al., 2019; McMorris et al., 2002; Myers, 2012; Peltzer, Ramlagan, & Satekge, 2012; Swahn et al., 2018).

In addition, studies demonstrate that social support from peers can help in mitigating mental or behavioural problems such as any/risky alcohol use among adolescents in different countries across the world (Flaspohler et al., 2009; Mavhu et al., 2013; Nyongesa et al., 2021; Tanigawa et al., 2011). However, limited studies have been done specifically on the association between poor social support and alcohol use among ALHIV. Studies demonstrate that poor social support is associated with alcohol use among adolescents in both HICs and LMICs (Brick et al., 2018; B.

Piko, 2000). For example, two studies conducted in USA and Namibia among young people aged between 12- 26 years found that poor social support was associated with alcohol use among young people (Brick et al., 2018; B. Piko, 2000). However, a study among 119 participants in Bexar County, Texas in USA reveals that with good social support leads to some motivation to change on alcohol use and possibly reduce the alcohol use(Moon et al., 2019). The literature review section has highlighted the prevalence of alcohol use and associated factors among ALHIV. The next chapter looks at the research methodology that was adopted in this study.

## **CHAPTER 3 METHODS**

### **3.1 Introduction**

This section describes the research methodology that was used to conduct this study. A brief overview of the study's context is provided, describing the setting, population, study procedure, and measures used. A description of the data collection and data analysis methods is also provided. The ethical considerations are specified at the end of this section.

### **3.2 Study Design**

A cross-sectional research study design was used. A cross-sectional study design is a type of study design where a researcher conducts a study once off. Such a design may be used to describe a study population or a feature of the population, estimate whether a characteristic is associated with a disease or condition, show the distribution of a disease or estimate the prevalence of a disease (Creswell, 2009). This study design was chosen because of the nature of study objectives and it helped to generate knowledge about prevalence and factors associated with alcohol use among ALHIV. Further, the study utilized a quantitative analytical approach.

### **3.3 Setting**

The study was conducted at Blantyre District Health Centers, under Blantyre District Health Office, Malawi. In Malawi, all primary health care facilities offer ART services for ALHIV. The Blantyre district was targeted, as it has a particularly high prevalence of HIV compared to other districts in Malawi (MPHIA-SS, 2018). The languages spoken in this district are Chichewa and English.

Specifically, the study targeted ALHIV attending ART Clinics (Teen Clubs). Teen Clubs were created with the purpose of bringing the adolescents together to share their problems and support each other, while also providing ART services. This is in line with national HIV/AIDS treatment guidelines which states that the adolescents of that age group should receive treatment through the teen clubs (Malawi-MoH, 2016). There are 20 Teen Club facilities in Blantyre district. Three teen clubs are privately owned and adolescent ART services are within the private clinics (Light House, Dream, and Mlambe Hospital) and seventeen others are government owned; all ART clinics fall

under the management of Blantyre District Health Office. Of these 20 Teen Club facilities, four are located in rural areas while the other sixteen health centers are in urban areas. The number of teens registered at each club varies. For example, at the Lighthouse club, which is in an urban area surrounded by a densely populated township, has approximately 200 teens attending the club. This was one of the largest clubs as it can be easily accessed by many adolescents from nearby townships in Blantyre, while other teen clubs vary from 100 to 200 teen club members because the adolescents travel long distance to access the services.

According to Blantyre District Office (2021) data, there were approximately 3000 HIV positive adolescents, aged 10 to 19 years, attending ART clinics/Teen clubs. Almost all teens who were registered in Teen Clubs do attend ART sessions monthly. The teen clubs typically run on the last Saturday of the month. Further, based on Blantyre District Health Office statistics (January,2022) the turnout of adolescents attending ART Teen clubs has been fluctuating from 85% to 95%. since mid-2020.

### **3.4 Sampling**

A sampling strategy is the act of defining your population and then figuring out how to choose a sample from it most effectively(Creswell & Clark, 2011; Islam & Aldaihani, 2022). In this study, 10 of the 20 ART clinics/Teen clubs that have more than 50 adolescents on the registry were randomly selected as research sites. This was done using a random number generator in Statistical Package for Social Scientists (SPSS). Using SPSS again, ALHIV were sampled randomly using random numbers created based on the list of names of ALHIV Clinic Book. The Clinic Book contained a list of all participants (ALHIV) who attended a certain targeted clinic during a particular day. We randomly sampled participants using SPSS based on the list of names of ALHIV Clinic Book during our clinic visit. ALHIV were aged between 10-18 years. A total of 376 participants were sampled. Furthermore, this study only included the randomly selected ALHIV who gave consent and were willing to participate in the study.

### **3.5 Sample size calculation**

In order to determine sample size; acceptable margin of error of 5 %; Confidence Level of 95%, and Population Size of 3000 were used. This sample size was calculated using an online Sample

Size Calculator which is presented as a public service of Creative Research Systems survey software. Available at <https://www.surveysystem.com/sscalc.htm> accessed on 5 October 2021. Based on the Creative Research Systems Survey Software Online Sample Size Calculator it was determined that 341 participants were to be involved in this study. Further, in order to account for the possibility of participants not completing the interviews, 10% of the total targeted participants were added. Therefore, a total of 376 ALHIV participants was finally targeted in this study.

### **3.6 Participants**

In order to be eligible for the study, adolescents at the selected ART clinics needed to be between the ages of 10 and 19, HIV positive and on ART for more than 3 months. During the study, the researcher aimed to recruit around 37 participants per clinic, and provided informed consent/assent as appropriate. The reason for targeting adolescents who had been ART for more than three months was that, by 3 months, HIV-positive adolescents are fully aware of their HIV positive status and have an understanding that they are taking ART because the drugs suppress the virus. This criterion was also designed to reduce the chance of recruiting adolescents with symptoms of depression and anxiety secondary to recent diagnosis of HIV and treatment. Newly diagnosed HIV-positive adolescents may have symptoms of distress because they are still processing their new HIV diagnosis and may not have accepted their new status yet.

#### **3.6.1 Exclusion criteria**

Adolescents were excluded from the study if they met the following criteria:

1. All ALHIV who fail to give consent or assent.
2. All ALHIV under 18 years whose parents have not given consent.
3. All ALHIV who have no capacity to give consent due to other conditions.

### **3.7 Procedure**

All eligible participants at the selected clinics who gave informed assent/consent with parental informed consent as necessary were recruited in this study. The recruitment of study participants was conducted between April 2022 to August 2022 (5 months). The participants who met the criteria to be involved in the study were asked by the clinic medical staff if one of the research team may approach them to explain the study. The principal researcher employed research

assistants in this study and were 4th year psychology students at the University of Malawi, fluent in English and Chichewa, who were not involved in providing usual services at the clinics. The use of research assistants in data collection was done in order to minimize social desirability bias because nurses/clinicians based at the clinic might interfere with adolescent's expression of alcohol use because it is not allowed for an adolescent to take alcohol by law and participants may feel bad if health workers know that they are taking alcohol. Furthermore, participants may think that nurses will not treat them fairly because they take alcohol. The researcher went through the whole International Classification of Functioning (ICF) and all the information related to the study, including the information about the refreshments, gift packs and transport reimbursement. If participants agreed to be approached, a research team member gave the introduction to the study during their monthly visit to the teen club in a private space and consent forms to the adolescents who are under 18 years old to take home to their legal parent or guardian. The Malawian Government constitution (1994) states that anyone less than 18 years is a minor and cannot give a full consent on any issues that can affect their health. A legal guardian or parent is someone who is registered with the ART clinic to be the official guardian meant to take care of an HIV-positive adolescent attending that specific clinic. In case they wanted further clarifications from the researcher; the researchers' phone number was on the consent form so that they can call freely. Parents/Guardians were free to come and see the researcher and research assistants at the next teen club if they wanted to know more information about the study. If the adolescent was 18 or 19 years old, the research team member proceeded with the informed consent if the adolescent agreed to hear more about the study. Informed assent was taken from adolescents under 18 years when they return with a signed parental/guardian informed consent form. Before informed assent (for those under 18 years old) or consent (for adolescents aged 18 or 19) were taken in this study, the researcher explained and then asked the adolescent to teach the information back to the researcher so the researcher can see if they have understood the consent process (teach back process) and adolescents were given a chance to ask for clarification if there was a need. ALHIV attending teen clubs were approached on the day of the researcher visit. Those who were aged between 18-19 years individually provided consent while those who were aged between 10-17 years were interviewed after they brought the parental consent first; the parental consent forms were given to ALHIV during the researchers' first visit so that they take them to the guardians/parents to provide consent. The sample was supplemented by accessing extra clinics as necessary.



After obtaining both parental consent and adolescents' assent, assistant researchers administered the survey questionnaire in Chichewa in a quiet and private space at the facility that could take approximately 45 minutes. The assistant researcher first reiterated the study briefly and asked the person if they would like to continue.

The research questionnaires/instruments were translated into Chichewa language so that the participants were able to understand the items being assessed in the questionnaire. The language translation was done by a language expert at the University of Malawi. A brief pilot test was conducted with about 10 ALHIV using the Chichewa version questionnaires, since the questionnaires were not validated among ALHIV in Blantyre, Malawi. During the pilot test, the researchers checked with the adolescents that they understood the items that they are being assessed on. The interviews took place during teen club sessions. The principal researcher was available with the research assistants at every data collection visit in order to supervise the research assistants. Further, the researcher was not working at the Blantyre District Health Office clinics. Also, at the time of this research study the trained Research Assistants were fourth year psychology students at the University of Malawi and they had already covered psychometric assessment modules.

### **3.8 Measures**

#### **3.8.1 Socio-demographics**

The following participants' socio-demographic characteristics were collected: age, sex, ethnicity, residence, education, employment status, and religion.

#### **3.8.2 Alcohol use**

Alcohol use was measured using the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) for Young people (ASSIST-Y) questionnaire as well as the alcohol use module of the Global School-based Student Health Survey (GSHS). ASSIST-Y questionnaire is a WHO questionnaire and measures substance use in young people aged between 10-17 years and can be used in primary health care settings (Government-of-South-Australia, 2017). The ASSIST-Y questionnaire is a 7-item tool. It categorizes and measures alcohol and substance use into three different levels over the past 3 months: No risk (score 0-1), Moderate risk (score 2-5) and High

risk (score 6-above) among 10 to 14 year-olds while No risk (score 0-1), Moderate risk (score 2-11) and High risk (score 12-above) among 15 to 19 year-olds (Humeniuk et al., 2016). ASSIST-Y questionnaire has been found to be effective in assessing substance use and related harms among adolescents in different countries (Humeniuk et al., 2016; Källmén et al., 2019). Question 1 of the ASSIST was used, which assess if someone has ever used alcohol and other substances in a life time for non-medical reasons. The ASSIST alcohol risk scores were not used because few adolescents had used alcohol. Although the ASSIST-Y questionnaire has not been validated in Malawi, it has been found to be reliable and effective instrument in measuring alcohol and substance among young people (Government-of-South-Australia, 2017; Humeniuk et al., 2016; Källmén et al., 2019). Therefore, the questionnaire was used to detect alcohol, drug and substance use among ALHIV in Blantyre, Malawi. Also, the global school-based student health survey (GSHS) has served as a reliable tool to measure the health of young people across the world in a school environment. Therefore, the questionnaire was used to describe the lifetime alcohol use among ALHIV in Blantyre, Malawi. The GSHS English version was translated into local language (Chichewa). Given that few adolescents in the study reported risky alcohol use, we simplified this variable to “any lifetime use” based on question 1 of the ASSIST-Y. The Cronbach's alpha for the ASSIST-Y questionnaire used was .86. This shows that it was a reliable tool for assessing alcohol use among ALHIV. ASSIST-Y questionnaire was adopted because it has been proved to be a reliable tool in assessing alcohol use in adolescent population. For example, a study in Baltimore, USA among adolescents found Cronbach's alpha of .72 for alcohol of Internal Consistency(Gryczynski et al., 2015).

### **3.8.3 Depression**

The Center for Epidemiologic Studies Depression Scale (CESD-10) is a widely used ten-item screening tool used to assess depression (Mohebbi et al., 2018; Radloff, 1977). The 10-item scale is a measure of study participants' depressive symptoms in the past week. The respondents are asked to rate the degree to which they experienced each depression related symptom on a 4-point frequency scale: 1-Rarely or none of the time (less than 1 day), 2-Some or a little of the time (1-2 days), 3- Occasionally or a moderate amount of time (3-4 days) and 4-All of the time (5-7 days). CESD-10 scores range from 0 to 30. The CESD-10 cut-off score of 8 or 10 is considered as optimal to identify a participant at risk of depression (Andresen et al., 1994). The cut-off score that was used was found in a South African population(Baron et al., 2017). Although the psychometric

properties of the CESD-10 have not been validated in Malawi, it has been found to be effective instrument in measuring adolescent depression and has been used in similar settings in countries like South Africa and Rwanda where it has been validated (Baron, Davies, & Lund, 2017; Betancourt et al., 2012). The CESD-10 English version was translated into local language (Chichewa). The Cronbach's alpha for the CESD-10 questionnaire used was .71. This shows that it was a reliable tool for assessing depression symptoms among ALHIV. CESD-10 questionnaire was adopted because it has been proved to be a reliable tool in assessing depressive symptoms in adolescent population. For example, a study in a Morocco among adolescents found Cronbach's alpha values of between 0.88 and 0.93 for depressive symptoms of Internal Consistency (El-Ammari et al., 2023).

#### **3.8.4 Anxiety**

Anxiety was measured using the 7-item Generalized Anxiety Disorder scale (GAD-7) (Nyongesa et al., 2020; Spitzer, Kroenke, Williams, & Lowe, 2006). Possible scores range between 0 and 21. Items in these measures are rated on a 4-point Likert scale from “0” (not at all), to “1” (Several Days), “2” (More than half the days) to “3” (nearly every day). The GAD-7 cut-off scores indicate mild (5–9), moderate (10–14), and severe (15–21) anxiety symptoms, (Nyongesa et al., 2020). Although the psychometric properties of the GAD-7 have not been investigated in Malawi, it has been found to be an effective instrument in similar settings with adolescent populations (Haas et al., 2020; Nyongesa et al., 2020). The GAD-7 English version was translated into the local language (Chichewa). The Cronbach's alpha for the GAD-7 questionnaire used was .90. This shows that it was a reliable tool for assessing anxiety symptoms among ALHIV. GAD-7 questionnaire was adopted because it has been (Sun et al., 2021) proved to be a reliable tool in assessing anxiety symptoms in adolescent population. For example, a study among Chinese adolescents found Cronbach's alpha values of between 0.93 to 0.95 for the GAD-7 questionnaire (Sun et al., 2021).

#### **3.8.5 Adolescents Living with HIV- HIV Stigma Scale (ALHIV-SS)**

ALHIV-SS was used to measure stigma among study participants. ALHIV-SS is a 11 items scale including a vignette and associated questions. The vignette includes: “This is Phunziro” (male) or “This is Chimwemwe” (female). “Living with HIV is difficult for him/her sometimes. Some days Phunziro struggles to feel good about himself. Could you say how much these things are true for you?” The scale consists of items that measure all three HIV stigma mechanisms experienced by

ALHIV. The three HIV stigma mechanisms experienced by ALHIV include Anticipated stigma (2 items), Enacted stigma (3 items) and Internalized stigma (5 items). Responses are on a 3-point likert scale; 0: 'Never'; 1: 'Sometimes'; 2: 'Most of the time' (Pantelic, Boyes, Cluver, & Thabeng, 2018). The ratings of the measure was coded 0 for no stigma and 1 for presence of stigma. This tool has been used and validated in South Africa (Pantelic et al., 2018). Despite the fact that scale is not validated in Malawi, it has been found to be an effective instrument in similar settings with ALHIV. The questionnaire was used to detect the level of HIV stigma among ALHIV in Blantyre, Malawi. The ALHIV-SS English version was translated into the local language (Chichewa).

### **3.8.6 Social Support**

The Multidimensional Scale of Perceived Social Support (MSPSS) was developed by Zimet, Dahlem, Zimet & Farley (1988). The MSPSS is a 12 statements item questionnaire meant to assess perceived social support and is also a 7-point Likert scale. This questionnaire measures 3 constructs of social support (Family, Friends, and Significant Other) and has been validated to be effective in assessment of adolescent perceived social support in different countries (Ramaswamy et al., 2009; Zimet et al., 1990). It is a 7-point Likert scale and rated as follows "1" = Very Strongly Disagree, "2"=Strongly Disagree, "3"= Mildly Disagree, "4" = Neutral, "5"= Mildly Agree, "6" = Strongly Agree, "7" = Very Strongly Agree.

A score of less than 72 suggests low perceived social support while a score of greater than 72 is indicating greater perceived social support (Stewart et al.,2014). MSPSS questionnaire has been adapted and validated in Malawi by researchers (Umar et al., 2019). It has also been found to be a reliable and effective tool in determining social support among adolescents in South Africa in similar economic settings (Bruwer et al., 2008). Researchers have also used this tool to measure general social support from family, friends and significant others in various HIV and AIDS epidemic populations and societies, including adolescents (Kuo et al., 2012). The MSPSS English version was translated into local language (Chichewa).

### **3.8.7 Peer Pressure**

Brown (1986) peer pressure inventory is meant to assess perceived peer pressure and is also a 4-point Likert scale. It is rated as follows "No pressure", "A little pressure", "Somewhat", "A lot of pressure". It has 5 subscales; peer conformity, family involvement, peer involvement, school involvement and misconduct (Brown, Clasen, Donna.,Eicher, Sue., 1986). The inventory has been validated in different countries and has been proved to measure peer pressure associated with

alcohol use among adolescents (Santor, 1999; Studer et al., 2014). The peer pressure inventory English version was translated into the local language (Chichewa) which is relatively easy and straightforward to understand among study participants. The ratings of the measure were coded 0 for no peer pressure and 1 for availability of peer pressure problem. Greater scores meant greater peer pressure. The questionnaire was administered by the interviewer.

### **3.8.8 Child and Adolescent Trauma Screen (CATS)**

Trauma was measured using the Child and Adolescent Trauma Screen-20-item questionnaire. The CATS-20-item questionnaire was developed by Lutz Goldbeck and Lucy Berliner (2014). It is a measure of potentially traumatic events and of posttraumatic stress symptoms (PTSS) and has been validated in several countries in measuring adolescent traumatic experiences (Müller, Unterhitzenberger, Wintersohl, Rosner, & König, 2021; Nilsson, Dävelid, Ledin, & Svedin, 2021; Sachser et al., 2017). It is rated as follows: “0 = Never”, “1 = Once in a while”, “2 = Half the time” and “3 = Almost always”. The ratings of the measure were coded 0 for no trauma and 1 for yes (availability of trauma) problem. Both number of traumatic events and presence of PTSD symptoms as risk factors/independent variables were used. The questionnaire was administered by the interviewer. The CATS-20-item questionnaire English version was translated into the local language (Chichewa).

### **3.8.9 Family Factors**

In addition to the above individual factors, questions were elicited from the adolescents regarding their family environment, including whether parents/care giver were employed or not, family arrangements, parental use of alcohol and availability of alcohol at home.

### **3.8.10 Community factors**

Also, questions were elicited from adolescents regarding community risk factors associated with alcohol use among ALHIV, including whether peers use alcohol, and availability of alcohol in the community.

## **3.9 Analysis**

The first objective of the study was to explore prevalence of alcohol use among ALHIV. To determine this prevalence, descriptive analyses were conducted using SPSS version 27 software programme. The frequency distributions and descriptive statistics (means and standard deviations)

were calculated for categorical and continuous variables. The second objective of the study was to determine the factors associated with alcohol use. The unadjusted associations between lifetime alcohol use as the dependent variable, and participant socio-demographic characteristics (gender, religion, age, socio-economic status, violence and residence), and psycho-social factors (depression, anxiety, trauma, social support, peer pressure, family and community) as independent variables, were analysed. The statistical significance was based on 2-sided tests and set at  $\alpha = 0.05$ . Bivariate logistic model was established to control for social demographic variables (age, sex, ethnicity, residence, education and employment status), and psycho-social factors (depression, violence, anxiety, family and community). The model measured the risk factors associated with any alcohol use among ALHIV. We did not use alcohol risk given the low frequency of alcohol reporting in this sample. The results of the regression model were reported as odds ratios (ORs) with 5% confidence intervals (CIs) and 95% as a level of confidence of the results.

### **3.10 Ethical Considerations**

The research proposal was presented to the Human Research Ethics Committee at the Faculty of Health Sciences, University of Cape Town, Malawi National Health Research Committee (NHRC), and Blantyre District Health Office - Research and Ethics Committee and the management of each clinic selected for the study for ethical approval before the study was conducted.

#### **3.10.1 Privacy and Confidentiality**

Confidentiality was maintained at all times. If participants decided not to take part in the study, their decisions were respected, and this was not communicated to the staff providing care and it did not affect the adolescents' care at the facility. Further, participants' names were not used but they were allocated numbers which was used on the questionnaire. The research assistants did not divulge the participant's information and the interviews will take place in a private and quiet room at the clinic. The researcher did not leave any questionnaires at the clinics and research assistants took the questionnaires with them each time they are going for data collection and soon after finishing data collection at the clinic. The researcher took all the used and unused Questionnaires. Once the data was entered, it was stored on a password-protected computer. This helped to prevent disclosure of clients' privacy. After the student's MPhil degree has been completed and a paper

has been published, the deidentified data will be stored indefinitely in the Division of Public Mental Health Postgraduate Research Registry.

### **3.10.2 Risks and Benefits**

The main benefit for the participants was to be more aware of the effects and personal risks of alcohol use those identified by the ASSIST-Y questionnaire to have significant use and risky alcohol use level were to be referred to Queens Elizabeth Central Hospital, Mental Health Clinic, Blantyre and if they had other needs that had to be referred, it was done as required. For depression if the participant's scores are equal to or above 10 were considered to be depressed based on CESD-10 and referred to Queens Elizabeth Central Hospital, Mental Health Clinic, Blantyre. If an adolescent mentions suicidal ideation they were to be referred as well. The participants are young and HIV positive. The questions that were asked were not more stressful or distressing than questions that could be asked by healthcare staff at their usual clinic visits. Furthermore, the researcher was not able to talk to newly diagnosed adolescents. This research was classified as no greater than minimal risk, depending on the details of the study. Minimal risk in this case means that the probability and magnitude of harm or discomfort anticipated in the research was not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations.

In addition, the type of this research was not intervention, but purely observational. In case of minimal discomfort of a participant, the researcher who is a psychologist by training and experienced in counseling adolescents was able to counsel the study participant depending on the situation and refer appropriately. Furthermore, there was mandatory reporting if participant reports abuse or suicidal thoughts to Blantyre Health Office for support as required. The overall risk classification of this study was minimal, as the study did not have invasive procedures. Research Assistants were asked to sign the confidentiality forms so that they should be able to adhere to the ethical standards. The next chapter looks at the study results.

## CHAPTER 4 RESULTS

### 4.1 Introduction

The current chapter focuses on the outcomes. The first section describes the sample's socio-demographic information and alcohol use characteristics. It then presents the unadjusted associations between the dependent variable (alcohol use), and independent variables (participant demographic characteristics, depression, anxiety, post-traumatic stress disorder, the number of types of traumatic events, social support, stigma, and peer pressure). There is only one logistic regression model presented. This includes a model that predicts alcohol use.

### 4.2 Socio-demographics

A total of 376 ALHIV were sampled in this study, with approximately 3000 ALHIV attending ART clinics. In the total sample, 52.1% (n=196) were males, 84.8% (n=319) were Christians, 98.4% (n=370) were in school, and 42.3% (n=159) lived with both parents. See table 2 below.

**Table 2. Sociodemographic & family characteristics of sample (N=376)**

Variable	% (N)
<b>Gender</b>	
Male	52.1 (196)
Female	47.9 (180)
<b>Age (ms. sd)</b>	17, 2.5
<b>Religion</b>	
Christian	84.8 (319)
Muslim/others	15.2 (57)
<b>In school</b>	
No	1.6 (6)
Yes	98.4 (370)
<b>Education completed</b>	
Primary	53.5 (201)
Secondary	41.5 (156)
University/College	3.5 (13)
Never attended school	1.6 (6)
<b>Living arrangements</b>	
Both parents	42.3 (159)
Mother only	22.6 (85)
Father only	4.3 (16)
Other	30.9 (116)



### 4.3 Prevalence of psycho-social challenges among ALHIV attending ART clinics

The lifetime prevalence of any alcohol use among ALHIV is reported in Table 3. Overall, alcohol use across participant's lifetime was 17.8% (n=67). Depression and anxiety symptoms were reported in 27.7% (n=104) and 23.7% (n=89) of the participants, respectively. The most common psycho-social problem among ALHIV was experiencing a traumatic events (4 or more traumatic events) 70.5% (n=265), followed by reporting PTSD symptoms 31.7%(n=119). See table 3

**Table 3: Psycho-social mental health, and substance use characteristics of sample (n=376)**

	% (N)
<b>Any lifetime alcohol use</b>	
No	82.2 (309)
Yes	17.8 (67)
<b>Depression (median,range)</b>	7.0, 24.0
No	72.3 (272)
Yes	27.7 (104)
<b>Anxiety (median, range)</b>	0.0, 21.0
No	76.3 (287)
Yes	23.7 (89)
<b>Number of types of traumatic events (median, range)</b>	<b>6.0, 54</b>
0-3	29.5 (111)
4 and above	70.5 (265)
<b>Symptoms of PTSD (m,sd)</b>	10.40,11.58
No (0-14)	68.3 (256)
Yes (15 and above)	31.7 (119)
<b>Social Support (m, sd )</b>	
Significant other	4.76, 2.09
Family	5.80, 1.59
Friends	4.43, 1.82
<b>Total Social Support(median, range)</b>	63.0, 72.0
<b>Stigma (m, sd)</b>	
Internalized stigma	4.50,2.24
Anticipated stigma(median, range)	1.0, 4.0
Enacted stigma(median, range)	1.0, 7.0
<b>Total stigma (median, range)</b>	6.0, 20.0
<b>Peer pressure (median,range)</b>	
Family involvement	3.0, 36.0
School involvement	4.0, 3.0
Peer conformity	4.0, 35.0
Peer involvement	6.0,46.0
Misconduct involvement	3.0,54.0

#### 4.4 Results for any alcohol use in lifetime and associated factors among ALHIV.

Table 5 shows the unadjusted and adjusted associations between sociodemographic, psychosocial characteristics, and alcohol use. In the unadjusted model, seven variables were significantly associated with life-time alcohol use. Being male increased the odds of reporting any lifetime alcohol use compared be females (OR=0.51, 95% CI 0.29, 0.88). As age increased the risk for lifetime alcohol use increased (OR=1.18, 95% CI 1.02, 1.31). Participants who completed secondary school had increased odds of any lifetime alcohol use compared to those who had completed primary school only (OR=2.00, 95% CI 1.16, 3.47). Having symptoms of PTSD increased the odds of lifetime alcohol use among participants (OR=1.85, 95% CI 1.08-31.18). Participants who reported having more social support from a significant other (OR=0.87, 95% CI 0.77, 0.98), family (OR=0.83, 95% CI 0.72, 0.97) or friends (OR=0.83, 95% CI 0.72, 0.96) were less likely to report any lifetime alcohol use. In the adjusted model, gender remained significantly associated with any lifetime alcohol use, where females were less likely to use alcohol than male participants (OR=0.53, 95% CI 0.30, 0.94). Table 5 shows the details.

**Table 5: Any alcohol use in lifetime and associated factors among ALHIV**

	Yes (%)	No (%)	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
<b>Age (m, sd)</b>	17.63(2.17)	16.85 (2.57)	1.16 (1.02-1.31) *	1.06 (0.92-1.2)
<b>Gender</b>				
Male	44 (22.4)	152(77.6)	1.00	1.00
Female	23(12.8)	157(87.2)	0.51 (0.29-0.88) *	0.53 (0.30-0.94) *
<b>Religion</b>				
Christian	61(19.1)	258(80.9)	1.00	
Muslim/other	6 (10.5)	51(89.5)	0.50 (0.20-1.21)	
<b>Education Completed</b>				
Primary	51(16.3)	261(83.7)	1.00	1.00
Secondary	15(28.8)	37(71.2)	2.00 (1.16-3.47) *	1.77 (0.98-3.18)
University/College	1(16.7%)	5 (83.3)	1.93 (0.50-7.48)	1.75 (0.42-7.40)
Never attended school	0 (0.0)	6 (100.0)	-	
<b>Who do you live with?</b>				
Both parents	27(40.3)	132(35.1)	1.00	
Mother only	16(23.9)	69((18.4)	1.13 (0.57-2.25)	
Father only	6(9.0)	10(2.7)	2.93 (0.98-8.76)	

Other	18(26.8)	98(26.1)	0.90 (0.47-1.72)	
<b>Depression (m, sd)</b>	8.03,5.63	6.75,5.00		
No	44(16.2)	228(83.8)	1.00	
Yes	23(22.1)	81(77.9)	1.47 (0.84-2.59)	
<b>Anxiety (m, sd)</b>	0.33,0.47	0.22,0.41		
No	45(15.7)	242(84.3)	1.00	
Yes	22(24.7)	67(75.3)	1.77 (0.99-3.15)	
<b>Symptoms of PTSD (m, sd)</b>	13.96,12.56	9.62,11.23		
No	38(14.8)	218(85.2)	1.00	1.00
Yes	29(24.4)	90(75.6)	1.85 (1.08-3.18) *	1.78 (0.96-3.27)
<b>Social support</b>	M, SD	M, SD		
Significant other (m, sd)	4.22,2.29	4.88,2.03	0.87 (0.77-0.98) *	0.93 (0.76-1.12)
Family (m, sd)	5.37,1.85	5.89,1.51	0.83 (0.72-0.97) *	0.97 (0.81-1.16)
Friends (m, sd)	3.92,1.83	4.54,1.80	0.83 (0.72-0.96) *	0.89 (0.71-1.11)
<b>Stigma total</b>	7.48,3.84	6.81,3.94		
Internalized (m, sd)	1.39, 1.68	1.36, 1.59	1.11 (0.99-1.24)	
Anticipated (m, sd)	1.16, 1.18	1.03, 1.25	1.01 (0.88-1.34)	
Enacted (m, sd)	4.93, 2.36	4.41, 2.21	1.01 (0.86-1.19)	
<b>Types of traumatic events</b>				
0-3	14(12.6)	97(87.4)	1.00	
4 and above	53(20.0)	212(80.0)	1.73 (0.92-3.27)	
<b>Peer pressure</b>	M, SD	M, SD		
Family involvement (m, sd)	4.22, 6.39	3.98, 6.57	1.01 (0.97-1.05)	
School involvement (m, sd)	6.03, 6.18	5.12, 6.67	1.02 (0.98-1.06)	
Peer conformity (m, sd)	4.66, 6.39	5.26, 6.83	0.99 (0.95-1.03)	
Peer involvement (m, sd)	6.70, 7.65	6.28, 7.87	1.01 (0.97-1.04)	
Misconduct (m, sd)	3.63, 9.22	3.98, 8.63	1.00 (0.97-1.03)	

In conclusion, the study found that the prevalence of any lifetime alcohol use among this adolescent group was 18%. Also, this study found that being male increased the odds of reporting any lifetime alcohol use compared to being female. The next chapter presents a discussion of the findings.

## **CHAPTER 5 DISCUSSION**

### **5.1 Introduction**

This chapter's purpose is to discuss the findings presented in Chapter 4 in the context of relevant literature. It will begin with a discussion of the study's main findings, which include the prevalence and associated risk factors for any life-time alcohol use among ALHIV attending ART clinics at selected health centers in Blantyre. Following that, the limitations of the study will be addressed. The chapter will conclude with recommendations for future research as well as implications for practice, training, and policy development.

### **5.2 Major Findings**

Key findings emerged from this study. First, the study found that the overall prevalence of lifetime alcohol use was 17.8%. Second, only gender remained significantly associated with any lifetime alcohol use, where males were more likely to use alcohol than female participants. Third, although not associated with life-time alcohol use, the study found that participants experienced other forms of psycho-social problems, including depressive symptoms (27.7%), symptoms of anxiety (23.7%), past traumatic event experiences (70.5%) and symptoms of PTSD (31.7%). These findings will be discussed in more detail below.

#### **5.2.1 Prevalence of lifetime alcohol use**

This study discovered that the prevalence for alcohol use across participant's lifetime was 17.8% (n=67), which is within the range of global prevalence figures of alcohol use among ALHIV, estimated between 4.3% and 57.2% (Alperen et al., 2014; Birungi et al., 2021; Conner et al., 2013). The study findings were consistent with the prevalence of alcohol use that was found in HIC such as the United States, where the prevalence of alcohol use among ALHIV ranged from 12.7% - 57.2% (Alperen et al., 2014; Conner et al., 2013; Elkington, 2009; Elkington et al., 2015). Furthermore, similar findings were observed in SSA, where the prevalence ranged from 4.3% to 21.6% (Birungi et al., 2021; Brittain et al., 2019; Swahn et al., 2019). In addition, the current study's prevalence was lower than that reported in Umar et al's (2019) study, where 66.7% of YLHIV from urban and rural settings in six districts of Malawi reported any use of alcohol. The

age range in the current study was lower than in the Umar et al (2019) study, which could explain the lower prevalence, since younger adolescents are usually less likely to use alcohol (Conner et al, 2013). The study context in Malawi, where the government and numerous non-governmental organizations in Blantyre conduct sessions about the interaction between ART and alcohol use among ALHIV, may be the cause of the disparities in the study results. Additionally, as ALHIV cognitive abilities improve as well as their awareness of the effects of alcohol and ART interaction increases, ALHIV may tend to avoid drinking.

### **5.2.2 Risk factors**

The study discovered that only one variable, namely sex, was identified as a statistically significant risk factor for any lifetime alcohol use among ALHIV: being male increased the odds of reporting any lifetime alcohol use compared to being a female. This finding is consistent with reviewed international literature from both HIC and LMIC that suggests that being male is a risk factor for alcohol use among ALHIV (Birungi et al., 2020; Fatoye & Morakinyo, 2002; Francis et al., 2015; Kuteesa et al., 2020; Madu & Matla, 2003; Morojele et al., 2016; Riva et al., 2018; Swahn et al., 2020; Tyler et al., 2016). In the adjusted model, the study found that being male was the only risk factor to remain statistically significant ( $p=0.01$ ) for lifetime alcohol use among ALHIV. In addition, similar studies in adolescents have also revealed that being male is associated with lifetime alcohol use (Ben El Jilali et al., 2019; Birungi et al., 2021; Kuteesa et al., 2020; Nalugya-Sserunjogi et al., 2016; Saban, Flisher, & Distiller, 2010). However, further research utilizing qualitative or mixed methods approaches is needed, could shed light on the current studies finding that males were more likely to use alcohol than females among ALHIV in Malawi (Hafsa, 2019; Maggetti, 2020).

This study found that there was no association between being religious, other sociodemographic factors and any lifetime alcohol use. This finding contradicts several studies conducted in Uganda and South Africa that have found that compared to young people who identify as being Muslim, being a Christian is associated with alcohol use among adolescents (Birungi et al., 2020; M. O. Kuteesa et al., 2020; Maserumule et al., 2019). The disparity between earlier study findings and current study findings could be due to a number of variables. For example, given many religious institutions do not condone the use of alcohol use among its members (Bærndt & Frank, 2023), it

is very unlikely that their members would use alcohol. This could be the case with the findings of this study. In addition, contrary to prior studies among adolescents, this study showed no significant association between ALHIV's lifetime alcohol usage and variables like age and education level (Bendtsen, Damsgaard, Tolstrup, Ersbøll, & Holstein, 2013; Francis et al., 2015; Gamarel et al., 2016; Kuteesa et al., 2020; Morojele et al., 2016; Swahn et al., 2020).

Despite the high prevalence of ALHIV experiencing symptoms of depression in the current study, no association between lifetime alcohol use and depressive symptoms was found. The results are consistent to a cross-sectional study that was conducted in Uganda among ALHIV which found that major depressive disorder was not associated with alcohol and substance use among ALHIV (Birungi et al., 2020). However, Balogun et al. (2014) conducted a multi-national study among adolescents aged between 13-15 years in fourteen LMICs and found that alcohol use was associated with depression. In addition, four cross-sectional studies in Uganda, Morocco, and South Africa among adolescents aged between 13-16 years found that depression was associated with alcohol use (Ben El Jilali et al., 2019; Kuteesa et al., 2020; Nalugya-Sserunjogi et al., 2016; Saban, Flisher, & Distiller, 2010). The lack of association between lifetime alcohol use and depressive symptoms found in this study could be attributed to ALHIV's cognitive factors such as being positive and self-discovery (Breton et al., 2015).

Furthermore, the current study also found no association between lifetime alcohol use and anxiety symptoms among ALHIV. Similarly, one study that looked at association between anxiety and alcohol use among ALHIV (Birungi et al., 2021). This study was conducted in Uganda among ALHIV attending health care (Birungi et al., 2021). The researchers found no statistically significant association between anxiety and alcohol use among ALHIV. However, anxiety does appear to be a relatively widely recognised risk factor for alcohol use among adolescents in general (Costa Mde et al., 2013; Johannessen et al., 2017; Wu et al., 2010; Zimmermann et al., 2003). Given that Malawi and Uganda are both LMICs, one may argue that the similarities between the results of this study and the study carried out in Uganda could be due to the target population, methodology, and study context (Sabbagh et al., 2022).

In addition, this study discovered that ALHIV attending ART clinics in Blantyre had experienced a number of traumatic events, with some adolescents self-reporting high levels of PTSD symptoms. Again, no association was found between PTSD symptoms and alcohol use among

ALHIV attending ART clinics. However, studies conducted in both HICs and LMICs indicate that there is an association between trauma and alcohol use among adolescents (Dube et al., 2006; Oliveira Filho et al., 2013; Paiva et al., 2015; Schiff, 2006; Schroeder & Polusny, 2004). Furthermore, trauma has been associated with countless adolescent harms including poor coping skills, and risky alcohol use (Magidson et al., 2017). Six cross-sectional studies conducted in the United Kingdom and the United States among teenagers aged 10 to 19 years discovered a link between trauma and alcohol consumption in HICs (Dixon et al., 2009; Dube et al., 2006; Oliveira Filho et al., 2013; Paiva et al., 2015; Rowe, Santos et al., 2015; Schiff, 2006; Schroeder & Polusny, 2004; Smith & Saldana, 2013). In LMICs, similar findings have been seen. Three cross-sectional studies conducted in Uganda and South Africa among teenagers aged 12 to 19 years discovered a link between trauma and alcohol use (Babihuga, 2015; Brook et al., 2011; Magidson et al., 2017). According to some South African studies, some forms of traumatic experiences, such as violent exposure and victimization, had the strongest association with teenage alcohol consumption (Brook et al., 2011; Magidson et al., 2017). The disparity between the study results of this study and those of previous studies in terms of associations could be as the result of different study populations, as these studies were carried out among general adolescent populations rather than ALHIV-specific populations. Also, the current study also found that among ALHIV who visited ART clinics, there was no association between having PTSD symptoms and lifetime alcohol use. However, a study that was conducted in Uganda among 479 ALHIV aged between 12 and 17 years attending health care at clinical sites (Birungi et al., 2020). Researchers found that having post-traumatic stress disorder was associated with alcohol use among ALHIV (Birungi et al., 2020). Contextual, cultural and coping mechanism variations may be the cause of the discrepancies between the findings of the current study and those of earlier studies (Niu et al., 2021).

Additionally, stigma existed among ALHIV. Similar research studies have also found that HIV-related stigma is prevalent among ALHIV (Kim et al., 2017b; Kumar et al., 2014; Swendeman et al., 2006). However, after running binary logistic regression analysis, it was observed that all forms of stigma (internalized stigma, anticipated stigma, and enacted stigma) were not significantly associated with alcohol use among ALHIV. While, in LMICs, two cross-sectional studies conducted in South Africa and Uganda among YLHIV found that HIV related stigma was associated with alcohol use (Earnshaw, Kidman, & Violari, 2018; Kekibina, 2017). Further, the types of HIV related stigma that was associated with alcohol use in South Africa are: internalized

stigma and associative stigma, whereby undermine the wellbeing of YLWH who were born with HIV (Earnshaw et al., 2018). The disparities in the study findings may be ascribed to differences in the research context and the age of the study's target population (Mugo et al., 2023).

According to this study, ALHIV received support from their significant others, families, and friends. Furthermore, similar studies demonstrate that social support from peers can help in mitigating mental or behavioural problems such as any alcohol use among adolescents in different countries across the world (Flaspohler et al., 2009; Mavhu et al., 2013; Nyongesa et al., 2021; Tanigawa et al., 2011). Social support was shown to be associated with lifetime alcohol consumption among ALHIV in the unadjusted model in this study where adolescents with greater social support were less likely to report lifetime alcohol use, however in the adjusted model it was not statistically significant. However, a similar study revealed that alcohol use among adolescents is associated with poor social support. For example, a study by Peltzer and Pengpid (2018) study in Namibia among adolescents aged between 14-16 years found that lack of parental support was associated with alcohol use among adolescents. Variations in the target population's demographics and the study's setting could both contribute to the discrepancies in study results (Nyongesa et al., 2021).

Finally, the study found that ALHIV experienced peer pressure from family involvement, school involvement, peer conformity, peer involvement and misconduct involvement. Similar studies in both in HICs and LMICs reveal that adolescents experienced peer pressure (McMorris, Tyler, Whitbeck, & Hoyt, 2002; Myers, 2012; Swahn et al., 2018). The current study, however, found that peer pressure was not to be associated with lifetime alcohol use among ALHIV. While several studies in both in HICs and LMICs demonstrate that peer pressure influences adolescents to use alcohol (McMorris et al., 2002; Myers, 2012; Swahn et al., 2018), in comparison to adolescents in general, data on the relationship between alcohol use and peer pressure among ALHIV remain limited. Several studies have looked at peer pressure and alcohol usage among adolescents in HICs and LMICs. For example, seven research studies conducted in the United States, South Africa, Vietnam, and Uganda among young individuals aged 11 to 25 years discovered that alcohol usage was associated with peer pressure (Chauke, van der Heever, & Hoque, 2015; Kaljee et al., 2004; Maserumule et al., 2019; McMorris et al., 2002; Myers, 2012; Peltzer, Ramlagan, & Satekge, 2012; Swahn et al., 2018). Thus, it could be inferred that the target population and context of this



study may have played a role in the observed variation of the study's findings to those of previous research investigations because generally there is an association between alcohol use and peer pressure among adolescents (Inguglia et al., 2019).

The key study finding is that being male increased the odds of reporting any lifetime alcohol use compared to being a female. This finding is consistent with reviewed international literature from both HIC and LMIC that suggests that being male is a risk factor for alcohol use among ALHIV (Birungi et al., 2020; Fatoye & Morakinyo, 2002; Francis et al., 2015; Kuteesa et al., 2020; Madu & Matla, 2003; Morojele et al., 2016; Riva et al., 2018; Swahn et al., 2020; Tyler et al., 2016). However, the male adolescents' increased odds of reporting any lifetime alcohol use compared to being a female in Malawian context could be due to physiological and social changes like socialization into traditional gender roles (Schulte, Ramo, & Brown, 2009).

### **5.2.3 Prevalence of psychosocial problems**

This study found high prevalence of psychosocial problems among ALHIV attending ART clinics in Blantyre. A large percentage of adolescents reported having depression symptoms (n=104, 27.7%). The study findings were within the range of global prevalence figures of depression symptoms among ALHIV, which are estimated to range from 18.9% to 46% globally (Ayano, Demelash, Abraha, & Tsegay, 2021; Kemigisha et al., 2019; M. H. Kim et al., 2014; Lewis et al., 2015). Furthermore, similar findings were observed in SSA, where the prevalence ranged from 18.9% to 46% (Ayano et al., 2021; Kemigisha et al., 2019; Kim et al., 2014). The prevalence found in the present study is however greater than the prevalence of 18.9% reported previously among ALHIV in Malawi (Kim et al., 2014). The difference in the prevalence rate could be due to measures that were adopted in these two studies. For example, present study in Blantyre used CESD-10 to measure depression while the Lilongwe study used the Beck Depression Inventory-II and the Children's Depression Inventory-II-Short to measure depression among ALHIV (Kim et al., 2014). In addition, the current study was carried out in Blantyre, where it's possible that the participants had traumatizing experiences that put them at more risk of developing depressive symptoms than in the prior study, which was carried out in Lilongwe (Suliman et al., 2009). Furthermore, because Blantyre is a city, ALHIV may have been exposed to traumatic events such as witnessing violence, physical assaults, bullying, and sexual abuse, which could have led to depression (El-Khodary & Samara, 2020).

In addition, this study found that closer to quarter of ALHIV (N=89, 23.7%) were experiencing anxiety symptoms. The findings were also consistent with the prevalence found in both HIC and LMIC, such as the Ukraine, South Africa and Uganda, where the prevalence of anxiety symptoms among ALHIV ranged from 2.2% to 58.5 % (Durteste et al., 2019; Mutumba et al., 2015; Olashore, Paruk, Akanni, Tomita, & Chiliza, 2021; Too et al., 2021; West et al., 2019). However, when the current study's findings were compared to those of another study conducted in South Africa, the anxiety symptoms prevalence was found to be higher, as a study among ALHIV aged 9-19 years in South Africa discovered that 7% of ALHIV reported symptoms of anxiety (West et al., 2019). The disparity between the study results of this study and those of previous studies in terms of prevalence of anxiety might be as the result of different study social-economic contexts and lack of parental social support (West et al., 2019& Yap et al., 2014). The targeted ALHIV may have lacked social support from family and significant others in Blantyre, which may not have been the situation in South Africa, maybe because South Africa's social support systems were better. As a result, the study findings differed.

Also, this study found that over two thirds of ALHIV (n=265, 70.5%) had experienced lifetime traumatic events. The prevalence of lifetime traumatic events found in this study is in within the range of SSA prevalence figures of lifetime traumatic events among ALHIV, which are estimated to range from 10% and 78.2% (Dow et al., 2016 & Merrill et al., 2020). A similar study in Zambia found that 78.2% of YLHIV aged between 15 and 24 years had experienced lifetime traumatic events (Merrill et al., 2020)., perhaps reflecting the similarities in study contexts, socio-economic and cultural values. Furthermore, this study found that 31.7% of ALHIV had PTSD. While a similar study in Tanzania found that 10% of YLHIV aged between 12 and 24 years had experienced post-traumatic stress disorder (Dow et al., 2016). Unlike the Dow et al. (2016) study among YLHIV, the participants in the current study maybe had lower self-efficacy which may have increased their likelihood of PTSD, compared to the Tanzania study (Bender et al., 2010). It might be argued that the targeted participants' age, cognitive abilities and context contributed to the variation in the study findings.

The study revealed that there is a high prevalence of psycho-social problems (depressive symptoms, anxiety symptoms, PTSD, and Traumatic events) among adolescents in the Malawian context. The findings is not surprising, given that this population is living with HIV and may have

been exposed to more psychosocial stress than their peers, such as stigma and bereavement (Thapar et al., 2012; Beesdo et al.,2009; & Tian et al.,2014).

### **5.3 Implications of findings: Policy, practice and training**

The current study did not find high prevalence of alcohol use among ALHIV compared to earlier studies (Alperen et al., 2014; Conner et al.,2013) but the implications of alcohol use in this group are serious. However, the national mental health policy of Malawi does not recommend that cases of alcohol use among ALHIV be referred to mental health care, despite evidence linking such use to psycho-social problems, poor ART adherence, and other negative outcomes among this population (Abiodun et al., 2021; Nyongesa, 2022; Olashore et al., 2022). Therefore, a mental health policy is required to provide a clear strategy on how to effectively address alcohol use among ALHIV in Malawi.

Based on the study results Malawi needs to pay increased attention to the mental health of these young people. Alongside evidence from other studies conducted within the SSA and local contexts, it is evident that psychosocial problems like depression and anxiety are prevalent among ALHIV in Malawi. Currently, the Malawian mental health policy has not made provisions for the integration of mental health care into HIV care (Malawi MHP, 2020). In addition, strategies are lacking for the integration of in-service mental health training for general health care workers in order to provide them with necessary skills for the management of common mental health problems among ALHIV. This is not surprising, given that the mental health policy also has not made provisions for the integration of mental health services into the general health care delivery system or strategies to increase access of mental health services to young population of Malawi (Malawi MHP, 2020). The existing mental health services are mainly urban based and the national Primary Health Care delivery system is currently not equipped to provide adequate mental health services at this level (Malawi MHP, 2020).

In Malawi, there is need to pay more attention to the mental health of ALHIV, one possible modification to existing policies would be to incorporate the use of registered counsellors, social workers, or psychologists to conduct ALHIV interviews in HIV care settings. Such a practice would create a safe and comfortable environment for ALHIV to disclose mental health problems,

and risky health behaviours, including unhealthy alcohol use to healthcare providers, thereby allowing for adequate support, containment, and guidance.

Furthermore, based on the findings of the current study, it is recommended that healthcare professionals such as nurses, clinicians, and HIV counsellors should focus on educating the young people about mental health, healthy lifestyle and the effects of use of alcohol among ALHIV during routine ART visits. The current study revealed that 17.8% of ALHIV had a lifetime history of alcohol use but went undetected due to the lack of screening and assessment protocols. To address this gap, healthcare staff should be trained to screen for alcohol use, as well as how to respond when an ALHIV discloses their alcohol use. Additionally, standard operating procedures should be implemented in these settings to guide the appropriate assessment and intervention for ALHIV with alcohol use. This would require the development of an appropriate assessment and intervention strategy to identify and connect ALHIV with appropriate resources to address their alcohol use. By integrating alcohol use screening and intervention into routine ART visits, healthcare professionals can better address this public health concern among ALHIV in Malawi.

#### **5.4 Study limitations**

The findings of this study need to be considered among several limitations. The whole world has been affected by Corona Virus Disease 2019 (COVID-19) pandemic and COVID-19 has brought a lot of fear among patients (WHO, 2021). Since the present study was conducted during the pandemic, one must consider that fewer patients attended the Teen Clubs than expected. Based on the nature of the study, there may also have been a chance of self-selection bias occurring during recruitment, since adolescents who are heavy alcohol users may not provide consent/assent for study participation. In addition, the study's sample size is small, making it difficult to generalize the findings to larger populations. Furthermore, the study's findings may not be generalizable to the larger ALHIV population, as local generalizability is difficult to assume beyond sample size. The small sample size and cross-sectional study design also have an impact on the prevalence rates and comparison of this study's results to those of the larger literature. Given that the sample was drawn from only ten sites, extrapolating the results to the larger Malawian context is difficult. However, given that the selected health centers are among Malawi's largest health centers (Malawi Demographic Health Survey, 2015) it does offer some insight into the level of alcohol use among

ALHIV from this specific population and setting. In terms of measures, only the GSHS and ASSIST questionnaires are validated in Malawi, but the other measures included in this study are not.

## **5.5 Conclusion and Recommendations**

The current study conducted at selected health centers in Blantyre, Malawi, examined alcohol use among ALHIV, which is a global health issue linked to various negative outcomes that demand immediate attention from public health sectors. The study found that some ALHIV attending these health centers had consumed alcohol during their lifetime, which is consistent with previous research globally and in Sub-Saharan Africa. Additionally, the study identified that females were less likely to use alcohol than male participants. Given the prevalence of psycho-social problems among ALHIV, health care institutions and practitioners need to develop new ways of identifying, containing, and providing adequate mental health intervention and support for this population. Also, despite the fact that the prevalence rate for alcohol use was low it is imperative to raise awareness of healthy lifestyle in order to prevent alcohol use among ALHIV. This could result in improved adolescent health care, better adherence to ART, and policy development for appropriate intervention strategies. Furthermore, randomized control trials may reveal more about the best way to predict and effectively manage alcohol use in ALHIV. This would aid in the development of appropriate ALHIV intervention strategies and programs. A greater awareness of effects alcohol use among ALHIV may also contribute to improved adolescent health and adherence to ART. The efficacy of ALHIV psychosocial care screening and intervention programs should be studied. Additional research may aid in determining the most appropriate intervention strategies for ALHIV who use alcohol. This information could help in detecting alcohol use among ALHIV and connecting ALHIV to resources like social services and support groups. Future research could also look into the role of social support in improving the psychosocial well-being of ALHIV. To gain insight into the subjective construction of alcohol use among ALHIV, qualitative data is required. This will provide much-needed subjective insight into how ALHIV perceive alcohol use and how it can be avoided. This could help in the development of appropriate referral pathways. Examining the effects of alcohol use on individuals, families, and communities may aid in the development of appropriate interventions for alcohol use among ALHIV.

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## **Appendix 1: Informed assent and consent forms**

### **Adolescent information sheet & informed assent form**

Thank you for taking the time to think about helping with this research study. This study is run by John Mulinda Kuyokwa who is a student at the University of Cape Town.

**Title of the study:** Prevalence and predictors of alcohol use among HIV-positive Malawian adolescents attending selected Anti-Retroviral Treatment clinics in Blantyre, Malawi.

#### **Why is this study being done?**

Many adolescents in Malawi use alcohol at times. Most of the help and information available is focused on adults and not on adolescents. This study will find out about alcohol use, emotions and other aspects of the lives of HIV-positive young people in Malawi. We can use the information from the study to get young people the help and information they need.

#### **Why are you being asked to help?**

You are an adolescent living with HIV and we would like your help to see if the questions will help us to know more about adolescents living with HIV when we ask about alcohol use, their emotions and how they think about sigma problems in their daily lives.

#### **How many people will be taking part?**

We hope to talk to around 375 adolescent living with HIV in Blantyre.

#### **How long will it take?**

The questions today should take about 30-45 minutes.

#### **What are we asking of you?**

1. As you are younger than 18 years old, we need your parent or legal guardian to agree if you would like to take part in the study. If you do not want us to contact your parent/guardian, we will not do so, but you will not be able to take part in the study. We will not share any of the information you give us with your parent/guardian.
2. We will first make sure that you understand the study and give you some time to think about it.
3. If you agree to take part and your parent/guardian agrees, I will ask you questions about your age. Then I will ask a few questions about your use of alcohol, your emotions, HIV status, ART adherence and how you think about stigma problems in your daily life. I will not tell anyone else what you tell me – including the people here at the ART teen clubs or your family – unless you tell me that you are thinking of hurting yourself or anyone else. Then we have to tell people who can help you and your family.

**Are there any possible benefits for you?**

If we find that you have any problems we can help with, we will send you to the right person to give you this help.

**Are there any possible risks or discomforts for you?**

The interviewer will be asking questions about your lifestyle and emotions which could make you feel uncomfortable. You can choose not to answer any question and/or stop answering the rest of the questions. We will do our best to support you. The psychologist will be available to assist you and we can refer you to other places for help as well. If we are concerned about you, we will contact you in a week or two to ask about your emotions again and we will then offer you a referral if needed.

**What choices do you have?**

You can choose to take part, or you can refuse to take part. If you choose not to take part, you will not be treated badly and you will still receive services from the ART clinic as usual. You can also choose to stop at any time and again you will still receive services. You are also free to refuse to answer individual questions and continue for questions after that one.

**Will your answers be kept private?**

Yes. I will not tell the ART clinic staff or anyone else about what you said. We keep these consent forms separately from your answers. We also do not put your name on your answers. When we talk about the information we were given, we say ‘so many people used alcohol’, ‘so many people had depression’, and so on.

**What answers will have to be reported?**

If you tell any of the staff that you plan to hurt yourself or someone else, action will be taken to stop this. If you tell us that you plan to hurt yourself, we will take you to a hospital or clinic for help. If you tell us that you have been hurt, or that you are afraid that you will be hurt in the future, we will have to report this. This may include sharing the information with appropriate authorities such as the police or social services.

**What will happen when the study has finished?**

When the study is over, the information will be looked at carefully and articles could be published in academic journals, along with the information collected with the questionnaires. This will not include any names or addresses. We may also give the information, without names or any identifying details to other people who are interested in health information about adolescents living with HIV attending ART clinics. The information will be kept in a larger collection of information called the Division of Public Mental Health Postgraduate Research Registry.

### **Do you get anything for helping us?**

Each person who takes part in the study will get refreshments, gift packs and transport reimbursement worth R25 to compensate them for their time and transport money they used to come to the clinic.

### **Future projects**

If you agree to give us your contact details, we may contact you in the future to ask if you want to take part in other study activities. You will complete a separate assent or consent form if you agree. If you would like to take part and you are still under 18 years old, we will also give your parent or guardian information about the project and ask them to sign a consent form before you take part.

### **Who can you speak to if you have any questions about the project?**

Please phone or email John Kuyokwa, or my supervisors Dr Claire van der Westhuizen, Prof. Katherine Sorsdahl, Dr Chiwoza Bandawe and/or university staff at the University of Cape Town. See contact details below.

### **If you have any questions, comments or concerns about the research, you can talk to the researcher. Please contact:**

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**Also, the UCT FHS Human Research Ethics Committee can be contacted on 021 406 6338 in case participants have any questions regarding their rights and welfare as research subjects on the study. You can also email Ms Lamees Emjedi at [lamees.emjedi@uct.ac.za](mailto:lamees.emjedi@uct.ac.za).**

*You will be given a copy of this information to keep.*

NHSRC Contacts  
National Health Sciences Research  
Committee,  
P.O. Box 30377,  
Lilongwe 3,  
Tel nos 265 1 789400, 789 321;  
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**University of Cape Town**  
**Consent to participate in research-Adolescents aged 10-17 years**



Alan J Flisher Centre  
for Public Mental Health

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Thank you for taking the time to think about helping with this research study. This study is run by John Mulinda Kuyokwa who is a student at the University of Cape Town.

**Title of the study:** Prevalence and predictors of alcohol use among HIV-positive Malawian adolescents attending selected Anti-Retroviral Treatment clinics in Blantyre, Malawi.

**We would like to make sure you have all the information.**

Because we have given you a lot of information, please tell me in your own words what you understand us to be asking of you. Then, in the box below, please put your initials if you agree to the following activities. You do not give up any rights by doing this.

Initials	What we're asking of you
	I agree that the study staff may ask my parent or guardian if I may take part in the study.
	I agree to take part in the study, which has been fully described to me. I will answer questions at the study appointment.
	I agree that the study staff may contact me to ask if I would like to take part in future projects.
	I agree that the information (without names or place names) can be shared with other people and kept in the Division of Public Mental Health Postgraduate Research Registry.

**I declare that:**

- I have read or someone has read this information and consent form to me. It is written in a language which I can speak well. I understand what the project is about and also the possible benefits and risks/discomforts for me.
- I have had a chance to ask questions and all my questions have been answered fully.
- I understand that I can choose to take part in this study or I can choose not to. I have not been pressured to take part. I also understand that I do not give up any rights by signing below.



- I may choose to leave the study at any time and will not be penalised or prejudiced in any way. I will still get the care I need.
- I have received an unsigned copy of this form to keep.

**Participant signature** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Name of person taking consent:** \_\_\_\_\_

**Signature of person taking consent:** \_\_\_\_\_

**Date:** \_\_\_\_\_

## **Parent/guardian information sheet**

Thank you for taking the time to think about helping with this research study. This study is run by John Mulinda Kuyokwa who is a student at the University of Cape Town.

**Title of the study:** Prevalence and predictors of alcohol use among HIV-positive Malawian adolescents attending selected Anti-Retroviral Treatment clinics in Blantyre, Malawi.

### **Why is this study being done?**

Many adolescents in Malawi use alcohol at times. Most of the help and information available is focused on adults and not on adolescents. However, little is known about prevalence and predictors of alcohol use among HIV-positive Malawian adolescents attending selected Anti-Retroviral Treatment clinics in Blantyre, Malawi. Therefore, this study intends to explore the gaps in the knowledge of prevalence and predictors of alcohol use among HIV-positive Malawian adolescents attending selected Anti-Retroviral Treatment clinics in Blantyre, Malawi.

### **Why is your child being asked to help?**

We are talking to adolescent living with HIV and we would like to see if the questions will help us to know more about adolescents living with HIV when we ask about alcohol use, their emotions, HIV status, ART adherence and how they think about stigma problems in their daily lives.

### **How many teenagers will be taking part?**

We hope to talk to around 375 adolescent living with HIV in Blantyre.

### **How long will it take?**

The questions should take about 30-45 minutes.

### **What are we asking of your child?**

1. We will first make sure that he or she understands the study and give him or her some time to think about it.
2. If he or she agrees to take part, we will ask you questions about age. Then we will ask a few questions about your use of alcohol, your emotions, HIV status, ART adherence and how you think about stigma problems in your daily life. We will not tell anyone else what he/she tells us – including the people here at the ART teen clubs or your family – unless he/she tell us that he/she is thinking of hurting yourself or anyone else. Then we have to tell people who can help you and your family.

### **Are there any possible benefits for your child?**

There are no immediate benefits for your child. The information they give will help us use the right questions and offer high quality of HIV management to adolescents living with HIV.

### **Are there any possible risks or discomforts for your child?**

There should be no risk or discomfort for your child. If we see that your child is uncomfortable or upset, we will support him or her. He or she does not have to finish the questions and can leave at any time. If we are concerned about your child, we will contact him or her in a week or two to ask about their emotions again and we will then offer them a referral if needed.

### **Will your child's answers be kept private?**

Yes. Your child's name will not be on the questionnaires. We keep the consent forms separately from the answers.

**What answers will have to be reported?**

If your child tells any of the staff that he or she plans to hurt him- or herself or someone else, or that someone has been hurting him or her, action will be taken to stop this. If he or she tells us that they plan to hurt themselves, we will take your child to a hospital or clinic for help. If he or she reports that another child or vulnerable person has been badly hurt, action will be taken. This may include sharing the information with appropriate authorities such as the healthcare staff, police or social services.

**Will your child's answers be kept private?**

Yes. Your child's name will not be on the questionnaires. We keep the consent forms separately from the answers. We do not use names of teenagers or of the specific ART clinic when we report what we found.

**What choices do you and your child have?**

You can decide to allow your child to take part, and then we will ask your child if he or she agrees to take part. If either of you decide that your child won't take part in, this will not affect you negatively in any way. Your child can also choose to leave at any time, or you can fetch your child at any time, and again there will be no problems with this. You are also free to refuse to answer individual questions and continue for questions after that one.

**What will happen when the study has finished?**

When the study has been completed, the information will be looked at carefully and used to make our questions better for teenagers so that we may help teenagers in the future. If other researchers or policymakers ask to see the information, we may share this information. There will no names or place names in this information. Articles could be published in academic journals. This will not include any names or addresses. The information will be kept in a larger collection of information called the Division of Public Mental Health Postgraduate Research Registry.

**Does your child get anything for helping us?**

Each person who enrolls in the study will get refreshments, gift packs and transport reimbursement worth R25 to compensate them for their time and transport money they used to come to the clinic.

**Future projects**

In the future, we may contact you to ask if your child may take part in another study, if you agree to provide contact details. If your child is still under 18 years of age, you will complete a separate parental consent form if you agree. Your child will then be asked if he or she would like to take part.

**Who can you or your child speak to if you have any questions about the project?**

Please phone or email John Kuyokwa, or to my supervisors Dr Claire van der Westhuizen, Prof. Katherine Sorsdahl, Prof Chiwoza Bandawe and or university staff at the University of Cape Town. See contact details below.

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Also, the UCT FHS Human Research Ethics Committee can be contacted on 021 406 6338 in case participants have any questions regarding their rights and welfare as research subjects on the study. You can also email Ms Lamees Emjedi at [lamees.emjedi@uct.ac.za](mailto:lamees.emjedi@uct.ac.za).

You and your child will be given a copy of this information to keep at home for your records.

#### NHSRC Contacts

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**Parent/guardian consent for my child to participate in research**

Thank you for taking the time to think about helping with this research study. This study is run by John Kuyokwa who is a student at the University of Cape Town.

**Title of the study:** Prevalence and predictors of alcohol use among HIV-positive Malawian adolescents attending selected Anti-Retroviral Treatment clinics in Blantyre, Malawi.

**We would like to make sure you have all the information.**

Because we have given you a lot of information, please tell me in your own words what you understand of what we are asking of your child. Now I am going to ask you if you agree for your child to take part in each of the activities. You do not give up any rights by doing this. Please tell me, (name) and the second person, (name), who will act as a witness.

	<b>Indicate that if you agree or not (yes/no)</b>	<b>What we're asking of your child</b>
1		I agree that my child can take part in the study, which has been fully described to me. My child may answer questions.
3		I agree that the research team may contact me to ask if my child would like to take part in future projects.
4		The information (without names or place names) can be shared with other interested parties and kept in the Division of Public Mental Health Postgraduate Research Registry.

**I declare that:**

- Someone has read this information and consent form to me. It is written in a language that I can speak well. I understand what the project is about and also the possible benefits and risks/discomforts for my child.
- I have had a chance to ask questions and all my questions have been adequately answered.
- I understand that I can choose to allow my child to take part in this study or I can choose not to allow this. I have not been pressured to allow my child to take part. I also understand that my child and I do not give up any rights by my agreeing to the study.
- My child may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- My child will be given an unsigned copy of this form to give to me.

**Parent signature** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Name of person taking consent:** \_\_\_\_\_

**Signature of person taking consent:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Name of witness (if telephonic consent):**  
\_\_\_\_\_

**Signature of witness:** \_\_\_\_\_ **Date:** \_\_\_\_\_

## **Adolescent (18-19 years) information sheet**

Thank you for taking the time to think about helping with this research study. This study is run by John Mulinda Kuyokwa who is a student at the University of Cape Town.

**Title of the study:** Prevalence and predictors of alcohol use among HIV-positive Malawian adolescents attending selected Anti-Retroviral Treatment clinics in Blantyre, Malawi.

### **Why is this study being done?**

Many young people in Malawi use alcohol at times. Most of the help and information available is focused on adults and not on young people. This study will find out about alcohol use, emotions and other aspects of the lives of HIV-positive young people in Malawi. We can use the information from the study to get young people the help and information they need.

### **Why are you being asked to help?**

You are an adolescent living with HIV and we would like your help to see if the questions will help us to know more about adolescents living with HIV when we ask about alcohol use, their emotions and how they think about stigma problems in their daily lives.

### **How many people will be taking part?**

We hope to talk to around 375 adolescent living with HIV in Blantyre.

### **How long will it take?**

The questions today should take about 30-45 minutes.

### **What are we asking of you?**

1. As you are aged between 18-19 years old, we need your consent to participate in the study. We will not share any of the information you give us with anyone including your parent/guardian.
2. We will first make sure that you understand the study and give you some time to think about it.
3. If you agree to take part and your parent/guardian agrees, I will ask you questions about your age. Then I will ask a few questions about your use of alcohol, your emotions, HIV status, ART adherence and how you think about stigma problems in your daily life. I will not tell anyone else what you tell me – including the people here at the ART teen clubs or your family – unless you tell me that you are thinking of hurting yourself or anyone else. Then we have to tell people who can help you and your family.

### **Are there any possible benefits for you?**

If we find that you have any problems we can help with, we will send you to the right person to give you this help.

### **Are there any possible risks or discomforts for you?**

The interviewer will be asking questions about your lifestyle and emotions which could make you feel uncomfortable. You can choose not to answer any question and/or stop answering the rest of

the questions. We will do our best to support you. The psychologist will be available to assist you and we can refer you to other places for help as well. If we are concerned about you, we will contact you in a week or two to ask about your emotions again and we will then offer you a referral if needed.

### **What choices do you have?**

You can choose to take part, or you can refuse to take part. If you choose not to take part, you will not be treated badly and you will still receive services from the ART clinic as usual. You can also choose to stop at any time and again you will still receive services. You are also free to refuse to answer individual questions and continue for questions after that one.

### **Will your answers be kept private?**

Yes. I will not tell the ART clinic staff or anyone else about what you said. We keep these consent forms separately from your answers. We also do not put your name on your answers. When we talk about the information we were given, we say ‘so many people used alcohol’, ‘so many people had depression’, and so on.

### **What answers will have to be reported?**

If you tell any of the staff that you plan to hurt yourself or someone else, action will be taken to stop this. If you tell us that you plan to hurt yourself, we will take you to a hospital or clinic for help. If you report that you have been in hurt way or another during the research study, necessary action will be taken. If you tell us that you have been hurt, or that you are afraid that you will be hurt in the future, we will have to report this. This may include sharing the information with appropriate authorities such as the police or social services.

### **What will happen when the study has finished?**

When the study is over, the information will be looked at carefully and articles could be published in academic journals, along with the information collected with the questionnaires. This will not include any names or addresses. We may also give the information, without names or any identifying details to other people who are interested in health information about adolescents living with HIV attending ART clinics. The information will be kept in a larger collection of information called the Division of Public Mental Health Postgraduate Research Registry.

### **Do you get anything for helping us?**

Each person who takes part in the study will get a refreshments, gift packs and transport reimbursement worth R25 to compensate them for their time and transport money they used to come to the clinic.

### **Future projects**

If you agree to give us your contact details, we may contact you in the future to ask if you want to take part in other study activities. You will complete a separate consent form if you agree. If you would like to take part and you are still between 18-19 years old, you are free to do so.

**Who can you speak to if you have any questions about the project?**

Please phone or email John Kuyokwa, or my supervisors Dr Claire van der Westhuizen, Prof. Katherine Sorsdahl, Dr Chiwoza Bandawe and/or university staff at the University of Cape Town. See contact details below.

**If you have any questions, comments or concerns about the research, you can talk to the researcher. Please contact:**

John Kuyokwa  
Faculty of clinical sciences  
Malawi College of Health Sciences,  
P/Bag 396, Blantyre.  
Tel:0884425574

Email: [johnkuyokwa@gmail.com](mailto:johnkuyokwa@gmail.com)

Dr Claire van der Westhuizen  
Alan J Flisher Centre for Public Mental Health  
Department of Psychiatry and Mental Health  
University of Cape Town  
46 Sawkins Road  
Rondebosch, Cape Town  
Tel: 021-6504487

Email: [claire.vanderwesthuizen@uct.ac.za](mailto:claire.vanderwesthuizen@uct.ac.za)

Prof. Katherine Sorsdahl  
Alan J Flisher Centre for Public Mental Health  
Department of Psychiatry and Mental Health  
University of Cape Town  
46 Sawkins Road  
Rondebosch, Cape Town  
Email: [katherine.sorsdahl@uct.ac.za](mailto:katherine.sorsdahl@uct.ac.za).

Prof Chiwoza Bandawe  
Department of Psychiatry & Mental Health,  
Kamuzu University of Health Sciences, Blantyre  
Email; [cbandawe@gmail.com](mailto:cbandawe@gmail.com)

**Also, the UCT FHS Human Research Ethics Committee can be contacted on 021 406 6338 in case participants have any questions regarding their rights and welfare as research subjects on the study. You can also email Ms Lamees Emjedi at [lamees.emjedi@uct.ac.za](mailto:lamees.emjedi@uct.ac.za).**

*You will be given a copy of this information to keep.*



## **Appendix 2: Chichewa version: Ma fomu ololera kulowa nawo m’kafukuku nditafotokozeredwa mmene kafukufuku ayendere**

### **Mfundo za achinyamata ndi ma fomu ololera kulowa nawo m’kafukufuku**

Zikomo kwambiri potenga nthawi yanu kuganizira zothandizira mu kafukufukuyi. Kafukufukuyi akupangitsa ndi bambo John Mulinda Kuyokwa, ophunzira ku Yunivesite ya Cape Town.

**Mutu wa kafukufuku:** kukula ka kamwedwe ka mowa ndi zomwe zimachititsa kumamwa mowa mwa achinyamata omwe ali ndi HIV ndipo akulandira chithandizo cha ART muzipatala zosankhika mumzinda wa Blantyre ku Malawi.

#### **N’chifukwa chiyani kafukufukuyi akuchitidwa?**

Achinyamata ambiri m’Malawi amamwa mowa nthawi zambiri. Ndipo chithandizo komanso mfundo zomwe zilipo sizionetsa chidwi pa achinyamata koma akuluakulu. Kafukufukuyi akufuna kupeza zambiri za kagwiritsidwe ntchito ka mowa, mmene achinyamata amamvera zomwe zikuwachitikira komanso zina zambiri zokhudza umoyo waachinyamata omwe ali ndi HIV m’Malawi. Mfundo zomwe zipezeke pakafukufukuyi zidzagwiritsidwa ntchito popereka chithandizo ndi mfundo zoyenerera zomwe achinyamata angafune.

#### **N’chifukwa chiyani mukufunsiidwa kutengapo mbali?**

Ndinu wachinyamata amene muli ndi HIV ndipo tikufuna kuti mutithandize kudziwa zambiri za achinyamata omwe ali ndi HIV pa kagwiritsidwe ntchito kamowa, mmene achinyamata amamvera zinthu zomwe zikuwachitikira komanso za kusalidwa komwe kumakhalapo m’moyo watsiku nditsiku.

#### **Ndi anthu angati omwe alowe nawo mukafukufukuyi?**

Tikuyembekezera kuyankhulana ndi achinyamata omwe ali ndi HIV omwe ali mu Blantyre okwanira 341.

#### **Kucheza nanu kungatenge nthawi yaitali bwanji?**

Mafunso akhoza kutenga mphindi zapakati pa 30-45.

#### **Tikupempha chiyani kwa inu?**

4. Pakuti simunakwane zaka 18, tikupempha kuti kholo lanu kapena amene amakuyang’anirani avomere kuti mutenge nawo mbali mukafukufukuyi ngati inu mungafune kutero. Ngati simukufuna kuti tiafunse makolo kapena okuyang’anirani, iwo safunsiidwa ndipo inu simutenga nawo mbali mukafukufukuyi. Zones zomwe tingakambirane, sitidzaulula kwa makolo kapena okuyang’anirani.
5. Choyambirira, tiyesetsa kuti mumvetsetse za kafukufukuyi ndipo tikupatsani nthawi kuti mulingalire bwino zotenga nawo mbali mukafukufukuyi.
6. Ngati mungafune kutenga nawo mbali,ndipo makolo kapena okuyang’anirani avomera kutero, ndidzakufunsa mafunso okhudza zaka zanu. Kenako ndidzafunsa mafunso okhudza kamwedwe ka mowa, mmene mumamvera zomwe zikukuchitikirani, za mm’mene mulili kumbali ya HIV kamwedwe ka mankhwala a ART ndi zomwe mumaganiza za

kusalana komwe anthu amne ali ndi HIV amakomananako m'moyo wa tsiku ndi tsiku. Izi sizidzaululidwa kwa aliyense kuphatikizapo anthu omwe mumakumana nawo mmagulu achinyamata apano kapenanso anthu akunyumba kwanu, pokhapokha mutanena kuti muli ndi maganizo ofuna kudzivulaza kapena kuvulaza wina, apa tidzauza anthu omwe angathe kukuthandizani kapena kuthandiza anthu apabanja panu.

### **Pali phindu lililonse potengapo mbali mukafukufukuyi?**

Ngati titapeza kuti pali vuto lililonse ndipo mufunika chithandizo chomwe ife tingakwanitse, tidzauza ndikutumiza munthu woyenerera kuti athandizepo.

### **Pali chiopsezo chilichonse kupena kusakhutitsidwa kwa inu?**

Ochititsa kafukufuku adzakufunsani mafunso ammene mumakhalira moyo wanu, ndimmene mumamvera zinthu zomwe zikukuchitikirani zomwe zingakupangitseni kukhala omangika, mukhoza kusankha kuti musayankhe mafunso ena achoncho kapenanso kusayankha mafunso ena onse otsatira. Ife tiyesetsa kuti tikuthandizeni. Katswiri wodziwa za kaganizidwe ka anthu akhalapo kuti atithandize ndiponso tikhoza kukutumizani kwina kuti mukathandizidwe bwino. Ngati tingakhale okhudzika ndi zomwe mungafotokoze, pasanathe masabata awiri kapena atatu tidzafuna kudziwanso mmene mukumvera ndipo tidzapereka chithandizo china chapamwamba ngati kungafunike kutero.

### **Muli ndi chisankho chotani?**

Mukhoza kusankha kutenga nawo mbali kapena osatenga nawo mbali. Ngati mungasankhe kusatenga nawo mbali palibe chilichonse choipa chomwe tingakuchiteni, mudzapitilira kulandira chithandizo cha ART. Komanso ngati mungasankhe kuti musiire panjira osapitirira ndi kafukufukuyi, mudzapitirirabe kulandira chithandizo.

### **Kodi mayankho anu adzasungidwa mwachinsinsi?**

Eya. Sindidzauza wina aliyense ngati wopereka chithandizo cha ART za zomwe mudzayankhule. Ma fomu osonyeza kuti mwavomera kutengapo mbali adzasungidwa malo osiyana ndi mayankho anu. Ndipo pa mapepala amayankho anu sitidzalembapo mayina.ponena za zomwe zidzayankhidwe tizidzalemba kuti 'anthu angapo mamwa mowa' 'anthu ena anali osweka mtima' ndi zina zotero. Tikatero tidzaona ngati mafunso athu anali bwino kapena anayenera kusinthadwa.

### **Ndi mayankho ati amene tingauze anthu ena?**

Ngati mungauze wina aliyense ogwira ntchito kuti mufuna kudzivulaza kapena kuvulaza wina aliyense, tidzachitapo kanthu pofuna kuti izi zisachitike. Ngati mudzatiuze kuti mufuna kudzivulaza kapena kuvulaza wina wake, tidzakutengerana kuchipatala kuti muthandizike. Ngati mungatiuze kuti mwana kapena wina aliyense wakuti ali pachiopsezo, tidzachitapo kanthu. Ngati munganene kuti kuti munavulazidwapo kapena mukuopa kuchitidwa chipongwe, tidzachitaponso kanthu. Izi zikhoza kukhudza mabungwe oyenera ngati apolisi ndi mabungwe ena omwe amathandiza pa zinthu ngati izi.

### **Chidzachitike ndi chiyani kumapeto kwa kafukufukuyi?**

Kumapeto kwa kafukufukuyi, mfundo zonse zotolerredwa zidzayang'anidwa bwino lomwe ndipo zidasindikidwa mabuku a sukulu pamodzi ndi mfundo zotolerredwa kudzera mafomu a kafukufuku. Izi sidzaikapo maina ndi makeyala aanthu otenga nawo mbali mukafukufuku. Tikhoza

kupereka mfundozi poapnda maina ndi zizindikiro zanu kwa amene angafunitsitse kudziwa mfundo zokhudza achinyamata omwe ali ndi HIV omwe akulandira chithandizo cha ART. Mfundozi zidzaikidwa pamodzi ndi mfundo zina ku Division ya Public Mental Health Postgraduate Research Registry.

### **Mupezapo chiyani potenga nawo mbali mu kafukufukuyi?**

Aliyense otengapo mbali adzalandira chiphaso chogulira katundu wokwanira R50 ngati chipukuta misozi pa nthawi yomwe akhala akubwera ku chipatala cha ART kudzayankha mafunso a kafukufuku, komanso kubwezeredwa ndalama yoyendera yokwanira R100.

### **Kafukufuku wamtsogolo**

Ngati mungalore kupereka nambala ya lamyakuti tingalumikizane nanu, tikhoza kudzakufunaninso pa kafukufuku wina wamtsogolo. Nthawiyo mudzayenera kulembanso mafomu ena osonyeza kuti mwavomera kutenga nawonso mbala mu kafukufuku ameneyo. Ngati mudzakhale muskwane zaka 18, tidzafunsanso Makolo anu kapena okuyang'anira kuti nawonso avomere kuti mutenge nawo mbali mukafukufukuyo.

### **Mungalumikizane ndi ndani mutakhala ndi mafunso pa za kafukufukuyi?**

Mukhoza kulumikizana ndiine John Kuyokwa, poimba lamyakapena pa makina a inteneti kapenanso kulumikizana ndi oyang'anira za maphunziro anga a Dr Claire van der Westhuizen, Prof. Katherine Sorsdahl, Dr Chiwoza Bandawe kapena ogwira ntchito pa Yunivesite ya Cape Town. Onani m'munsimu momwe tingalumikizirane.

### **Ngati muli ndi mafunso kapena ndemanga kapena chilichonse chaphindu chokhudza kafukufukuyi lumikizani ndi ochita kafukufuku potsatira izi:**

John Kuyokwa  
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Dr Claire van der Westhuizen  
Alan J Flisher Centre for Public Mental Health  
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46 Sawkins Road  
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Prof Chiwoza Bandawe  
Department of Psychiatry & Mental Health,  
Kamuzu University of Health Sciences, Blantyre  
Email: [cbandawe@gmail.com](mailto:cbandawe@gmail.com)

**Mutafuna kudziwa zambiri zokhudza ufulu wa anthu otenga nawo mbali mukafukufuku mukhoza kulumikizananso ndi a UCT FHS Human Research Ethics Committee pa 021 406 6338 kapenanso mungagwiritse ntchito makina a intaneti a Mayi Lamees Emjedi pa [lamees.emjedi@uct.ac.za](mailto:lamees.emjedi@uct.ac.za).**

*Fomu iyi mupatsidwanso kuti muisunge.*

**University of Cape Town**  
**Kuvomera kutengapo mbali mukafukufuku kwa achinyamata kwa a zaka 10-17**



Alan J Flisher Centre  
for Public Mental Health

Alan J Flisher Centre for Public Mental Health  
 Department of Psychiatry and Mental Health  
 University of Cape Town  
 Building B, 46 Sawkins Road, Rondebosch, 7700



Zikomo kwambiri potenga nthawi yanu kuganizira zothandizira mu kafukufukuyi. Kafukufukuyi akupangitsa ndi bambo John Mulinda Kuyokwa, ophunzira ku Yunivesite ya Cape Town.

**Mutu wa kafukufuku:** kukula ka kamwedwe ka mowa ndi zomwe zimachititsa kumamwa mowa mwa achinyamata omwe ali ndi HIV ndipo akulandira chithandizo cha ART muzipatala zosankhika mumzinda wa Blantyre ku Malawi.

**Tikufunitsitsa kuti muziwe zofunikira zonse**

**Chifukwa chakuti takuuzani zochuluka, tiuzeni m’Chichewa chomveka bwinozomwe inu mwatolapo.** Ndipo m’ mabokosi mu lembani malemba oimira maina anu kusonyeza kuti mwagwirizana nazo zochitika m’kafukufuku. Sikuti mukatero ndiye kuti ufulu wanu utha.

Malemba oimira maina anu	<b>Zomwe tikupempha kwa inu</b>
	Ndikuvomera kuti mukhoza kutenga chilolezo kuchokera kwa makaolo kapena ondiyang’anira kuti nditenge nawo mbali mkafukufuku.
	Ndikuvomera kutenga nawo mbali m’kafukufuku, yemwe ndafotokozeredwa bwino nobwino. Ndipo ndidzayankha mafunso pa nthawi yoikika.
	Ndikuvoemra kuti ofufuza akhoza kulumikizana nane kuti nditenge mbali m’kafukufuku wam’mtsogolo.
	Ndikulolera kuti zomwe tingakambirane (koma ponda maina anga komanso malo) zikhoza kugawidwa kwa ena komanso kusungidwa ku Division ya Public Mental Health Postgraduate Research Registry.

**Ndikulumbira kuti:**

- Ndawerenga kapena wina wandiwerengera zomwe zili pa fomu iyi, zalembedwa mu chiyankhulo chomwe ndimayankhula bwino lomwe. Ndamvetsetsa zolinga za kafukufukuyi. Komanso ndamvetsetsa phindu lake komanso zoopsa zomwe zingakhalepo.
- Ndinali ndi mpata wofunsa mafunso ndipo mafunso onse ayankhidwa momveka bwino.
- Ndikudziwa kuti kulowa kapena kusalowa mukafukufuku ndi chisankho change, sinaopsezedwe kuti ndilow mu kafukufuku. Ndikudziwanso kuti ndikasainira munsimu sikuti ufulu wanga watha.
- Ndikhoza kusiira panjira, osapitiriza nawo kukhala mu kafukufuku nthawi ina iliyonse ndipo palibe chilango chomwe ndingalandire, ndidzalandirabe chithandizo chomwe ndimalandira.
- Ndapatsidwa fomu yofanana ndiyomweyi yakuti ndisunge.

**Saini ya otenga nawo mbali** \_\_\_\_\_ **Tsiku:** \_\_\_\_\_

**Dzina la opangitsa kafukufuku:** \_\_\_\_\_

**Saini ya opangitsa kafukufuku:** \_\_\_\_\_

**Tsiku:** \_\_\_\_\_

## **Fomu ya Makolo kapena oyang'anira mwana amene wafuna kulowa nawo mukafukufuku**

Zikomo kwambiri potenga nthawi yanu kuganizira zothandizira mu kafukufukuyi. Kafukufukuyi akupangitsa ndi bambo John Mulinda Kuyokwa, ophunzira ku Yunivesite ya Cape Town.

**Mutu wa kafukufuku:** kukula ka kamwedwe ka mowa ndi zomwe zimachititsa kumamwa mowa mwa achinyamata omwe ali ndi HIV ndipo akulandira chithandizo cha ART muzipatala zosankhika mumzinda wa Blantyre ku Malawi.

### **N'chifukwa chiyani kafukufukuyi akuchitidwa?**

Achinyamata ambiri m'Malawi amamwa mowa nthawi zambiri. Ndipo chithandizo komanso mfundo zomwe zilipo sizionetsa chidwi pa achinyamata koma akuluakulu. Kukula kwa kamwedwe ka mowa komanso zomwe zimapangitsa achinyamata omwe ali ndi HIV komanso omwe akulandira chithandizo cha ku zipatala zosankhika mu Blantyre ku Malawi kumwa mowa sizikudziwika bwino.

### **N'chifukwa chiyani tikupempha chithandizo kuchokera kwa mwana wanu?**

Tikucheza ndi achinyamata omwe ali ndi HIV ndipo tikufuna kuona ngati mafunso athu angathandize kudziwa zambiri za achinyamata omwe ali ndi HIV powafunsa za kamwedwe ka mowa, mmene amamvera, kukhala ndi HIV, kutsatira ndondomeko pakumwa mankhwala a ART komanso zina zokhudza kusalidwa pa moyo wawo wa tsiku ndi tsiku.

### **Ndi achinyamata angati omwe atenge nawo mbali?**

Tikuyembekezera kucheza ndi achinyamata osachepera 341 omwe ali ndi HIV mu Blantyre muno.

### **Kucheza nawoku kuzitenga nthawi yayitali bwanji?**

Mafunso akhoza kutenga mphindi zapakati pa 30-45.

3. Ngati mwana wanu walora kulowa m'kafukufuku, tidzamufunsa zaka zake. Tidzamufunsa mafunso ochepa za kamwedwe ka mowa, m'mene amamvera, m'mene alili kumbali ya HIV, Kulondoloza kamwedwe ka Mankhwala, zimene amaganizira za mavuto a kusalana m'moyo wake watsiku ndi tsiku. Sitidzauza wina aliyense zomwe angatiuze, kuphatikiza anthu omwe ali nawo mugulu limodzi la ART ngakhale abale, pokhapokha ngati atanena kuti ali ndi maganizo ofuna kudzivulaza kapena kuvulaza wina. Apa tidzauza anthu omwe angathe kuthandiza abale.

### **Tikupempha chiyani kwa mwana wanu?**

4. Tiyesetsa kuti amvetse zomwe kafukufuku akufuna komanso timupatsa nthawi kuti apange chiganizo.

### **Pali phindu lililonse kwa mwana wanu potengapo mbali mukafukufukuyi?**

Palibepo phindu loonekeratu, komabe mfundo zomwe atipatse zidzathandiza kukhala ndi mafunso abwino komanso kupereka chithandizo chapamwamba kwa achinyamata omwe ali ndi HIV.

**Pali chiopsezo chilichonse kupena kusakhutitsidwa kwa mwana wanu?**

Palibepo chiopsezo chilichonse kwa mwana wanu. Koma ngati ttaona kuti mwana wanu ali ndi mantha kapena wodkhudzika tidzapereka chithandizo. Sizokakamiza kumaliza kuyankha mafunso onse, ndipo akhoza kutuluka mukafukufuku nthawi ina iliyonse. Ngati titapeza kuti mwana afunika chithandizo china ndi mmene mwana wanu wayankhira mafunso, tidzalumikizana nayenso m' masabata awiri kapena atatu kuti timufunse mmene akumvera pa nthawi imeneyo, ndipo ngati kungakhale koyenera, kumupezera chithandizo chapamwamba.

**Kodi mayankho a mwana wanu adzasungidwa mwachinsinsi?**

Eya. Dzina lamwana wanu silidzalembedwa pa mapepala akafukufuku. Komanso ma fomu osonyeza kulora kulowa mu kafukufuku adzaikidwa malo osiyana ndi mapepala amayankho am' kafukufuku.

**Ndi mayankho ati amene tingauze anthu ena?**

Ngati mwana wanu angauze wina aliyense ogwira ntchito kuti afuna kudzivulaza kapena kuvulaza wina aliyense, tidzachitapo kanthu pofuna kuti izi zisachitike. Ngati adzauza ife kuti mufuna kudzivulaza kapena kuvulaza wina wake, tidzamtengera kuchipatala kuti athandizike. Ngati angatiuze kuti mwana kapena wina aliyense kuti ali pachiopsezo, tidzachitapo kanthu. Izi zikhoza kukhudza mabungwe oyenera ngati apolisi ndi mabungwe ena omwe amathandiza pa zinthu ngati izi.

**Kodi mayankho a mwana wanu adzasungidwa mwachinsinsi?**

Eya. Dzina lamwana wanu silidzalembedwa pa mapepala akafukufuku. Komanso ma fomu osonyeza kulora kulowa mu kafukufuku adzaikidwa malo osiyana ndi mapepala amayankho am' kafukufuku.

**Ndi mayankho ati amene tingauze anthu ena?**

Ngati mwana wanu angauze wina aliyense ogwira ntchito kuti afuna kudzivulaza kapena kuvulaza wina aliyense, tidzachitapo kanthu pofuna kuti izi zisachitike. Ngati adzauza ife kuti mufuna kudzivulaza kapena kuvulaza wina wake, tidzamtengera kuchipatala kuti athandizike. Ngati angatiuze kuti mwana kapena wina aliyense kuti ali pachiopsezo, tidzachitapo kanthu. Izi zikhoza kukhudza mabungwe oyenera ngati apolisi ndi mabungwe ena omwe amathandiza pa zinthu ngati izi.

**Kodi mayankho a mwana wanu adzasungidwa mwachinsinsi?**

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kukhudza mabungwe oyenera ngati apolisi ndi mabungwe ena omwe amathandiza pa zinthu ngati izi.

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**Ndi mayankho ati amene tingauze anthu ena?**

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**Kodi mayankho a mwana wanu adzasungidwa mwachinsinsi?**

Eya. Dzina lamwana wanu silidzalembedwa pa mapepala akafukufuku. Komanso ma fomu osonyeza kulora kulowa mu kafukufuku adzaikidwa malo osiyana ndi mapepala amayankho am'kafukufuku. Sitimagwiritsa maina achinyamata kapena maina a chipatala cha ART pamene tikusindikiza zomwe tapeza

**Inu ndi mwana wanu muli ndi chisankho chotani?**

Mukhoza kusankha kuti mwana wanu kulowa nawo m'kafukufuku mukatero tidzafunsa mwana wanu ngati angalore kutenga nawo kapena osatenga nawo mbali. Ngati inu munganene kuti mwana wanu asalowe nawo m'kafukufuku izi sizidasokoneza kulandira chithandizo cha ART. Komanso ngati angasankhe kuti asiire panjira osapitirira ndi kafukufukuyi, sipadzakhala vuto lililonse.

**Chidzachitike ndi chiyani kumapeto kwa kafukufukuyi?**

Pamene kafukufukuyi watha, mfundo zonse zotolerredwa zidzayang'anidwa bwino lomwe ndipo zidzthandiza kukoza mafunso abwino okhudza achinyamata ndikupangitsa kuti achinyamata azidzathandizidwa bwino m'tsogolo. Ngati opanga kafukufuku ena komanso okonza malamulo angafune kuona mfundozi zidzaperekedwa kwa iwo. Pa mfundozi sipadzaikidwa maina aanthu kapena maina a malo. Mfundozi zidasindikizidwa m'mabuku azakafukufuku. Ndipo sipadzaikidwa maina kapena makeyala a malo ndi anthu. Mfundozi zidzaikidwa pamodzi ndi mfundo zina ku Division ya Public Mental Health Postgraduate Research Registry.

**Mwana wanu apezapo chiyani potenga nawo mbali mu kafukufukuyi?**

Aliyense otengapo mbali adzalandira chiphaso chogulira katundu wokwanira R50 ngati chipukuta misozi pa nthawi yomwe akhala akubwera ku chipatala cha ART kudzayankha mafunso a kafukufuku, komanso kubwezeredwa ndalama yoyendera yokwanira R100.

**Kafukufuku wamtsogolo**

M'tsogolo, tikhoza kudzamufunanso mwana wanu kuti atengepo mbali mukafukufuku wina ngati mungalore kuti nambala ya lamy. Ngati mwana wanu adzakhalebe asanakwane zaka 18

mudzasainira mafomu ololeza mwana wanu kulowa mkafukufuku, kenako tidzamufunsa mwanayo ngati angalore kulowa nawo m'kafukufuku.

**Kodi inu kapena mwana wanu angayankhulane ndi nadani atakhala ndi mafunso okhudza zakafukufukuyi?**

Mukhoza kulumikizana ndiine John Kuyokwa, poimba lanya kapena pa makina a inteneti kapenanso kulumikizana ndi oyang'anira za maphunziro anga a Dr Claire van der Westhuizen, Prof. Katherine Sorsdahl, Dr Chiwoza Bandawe kapena ogwira ntchito pa Yunivesite ya Cape Town. Onani m'munsimu momwe tingalumikizirane.

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Mutafuna kudziwa zambiri zokhudza ufulu wa anthu otenga nawo mbali mukafukufuku mukhoza kulumikizanso ndi a UCT FHS Human Research Ethics Committee pa 021 406 6338 kapenanso mungagwiritse ntchito makina a intaneti a Mayi Lamees Emjedi pa [lamees.emjedi@uct.ac.za](mailto:lamees.emjedi@uct.ac.za).

Inu ndi mwana wanu mupatsidwa fomuyi kuti mukasunge kunyumba.



## Kuloleza mwana wanga kulowa nawo mukafukufuku

Zikomo kwambiri potenga nthawi yanu kuganizira zothandizira mu kafukufukuyi. Kafukufukuyi akupangitsa ndi bambo John Mulinda Kuyokwa, ophunzira ku Yunivesite ya Cape Town.

**Mutu wa kafukufuku:** kukula ka kamwedwe ka mowa ndi zomwe zimachititsa kumamwa mowa mwa achinyamata omwe ali ndi HIV ndipo akulandira chithandizo cha ART muzipatala zosankhika mumzinda wa Blantyre ku Malawi.

### Tikufunitsitsa kuti muziwe zofunikira zonse

Chifukwa chakuti takuuzani zochuluka, tiuzeni m'Chichewa chomveka bwino zomwe inu mwatolapo za zomwe tikufuna kuchoka kwa mwana wanu. Ndipo pano ndikufunsani ngati mwalora kuti mwana wanu alowe nawo muzochitika za kafukufuku. Sikuti mukatero ndiye kuti ufulu wanu utha. Ndiuzeni dzina lanu, dzina la amene akhale mboni.

	<b>Sonyezani kuti mwalora polemba Eya kapena Ayi</b>	<b>Tikupempha chiyani kwa mwana wanu</b>
1		Ndamvetsetsa ndipo ndikuvomera kuti mwana wanga atenge nawo mbali mukafukufuku. Mwana wanga akhoza kuyankha mafunso am'kafukufukuyi.
2		Ndikuvomera kuti opangitsa kafukufuku akhoza kundipeza kuti andifunse ngati mwana wanga angapange nawo kafukufuku wa m'tsogolo.
3		Mfundo zopezeka kudzera m'kafukufuku (popanda maina aanthu ndi maina a malo) zidzagawidwa kwa ena omwe angazifune komanso zidasungidwa ku ku Division ya Public Mental Health Postgraduate Research Registry.

### Ndikulumbira kuti:

- Wina wandiwengerera mfundo zomwe zili pa fomu yovomereza kulowa mu kafukufuku, , zalembedwa mu chiyankhulo chomwe ndimayankhula bwino lomwe. Ndamvetsetsa zolinga za kafukufukuyi. Komanso ndamvetsetsa phindu lake komanso zoopsa zomwe zingakhalepo kwa mwana wanga.
- Ndinali ndi mwayi ofunsa mafunso ndipo mafunso onse anayankhidwa bwinobwino.
- Ku kapena kumukanira kuti asalowe nawo. Sikuti ndachita kukakamizidwa kuti mwan wanga alowe nawo m'kafukufuku. Ndikuzindikiranso kuti kulora mwana wanga kulowa m'kafukufuku sikuchotsa ufulu ulionse.
- Mwana wanga akhoza kutuluka m'kafukufuku nthawi iliyonse popanda vuto lotsatirapo.
- Mwana wanga adzapatsidwa fomuyi kuti ibwere kwa ine.

**Saini ya kholo** \_\_\_\_\_ **Tsiku:** \_\_\_\_\_

**Dzina la opangitsa kafukufuku:** \_\_\_\_\_

**Saini ya opangitsa kafukufuku:** \_\_\_\_\_

**Tsiku:** \_\_\_\_\_

**Dzina la mboni (ngati wayankhulidwa pa lamyā):**

\_\_\_\_\_

**Saini ya mboni:** \_\_\_\_\_ **Tsiku:** \_\_\_\_\_

## **Fomu ya achinyamata (a zaka 18-19)**

Zikomo kwambiri potenga nthawi yanu kuganizira zothandizira mu kafukufukuyi. Kafukufukuyi akupangitsa ndi bambo John Mulinda Kuyokwa, ophunzira ku Yunivesite ya Cape Town.

**Mutu wa kafukufuku:** kukula ka kamwedwe ka mowa ndi zomwe zimachititsa kumamwa mowa mwa achinyamata omwe ali ndi HIV ndipo akulandira chithandizo cha ART muzipatala zosankhika mumzinda wa Blantyre ku Malawi.

### **N’chifukwa chiyani kafukufukuyi akuchitidwa?**

Achinyamata ambiri m’Malawi amamwa mowa nthawi zambiri. Ndipo chithandizo komanso mfundo zomwe zilipo sizionetsa chidwi pa achinyamata koma akuluakulu. Kafukufukuyi akufuna kupeza zambiri za kagwiritsidwe ntchito ka mowa, mmene achinyamata amamvera zomwe zikuwachitikira komanso zina zambiri zokhudza umoyo wa achinyamata omwe ali ndi HIV m’Malawi. Mfundo zomwe zipezeke pakafukufukuyi zidzagwiritsidwa ntchito popereka chithandizo ndi mfundo zoyenerera zomwe achinyamata angafune.

### **N’chifukwa chiyani mukufunsidwa kutengapo mbali?**

Ndinu wachinyamata amene muli ndi HIV ndipo tikufuna kuti mutithandize kudziwa ngati mafunso athu angathandize kudziwa zambiri za achinyamata omwe ali ndi HIV pa kagwiritsidwe ntchito kamowa, mmene achinyamata amamvera zinthu zomwe zikuwachitikira komanso za kusolidwa komwe kumakhalapo m’moyo watsiku nditsiku.

### **Ndi anthu angati omwe alowe nawo mukafukufukuyi?**

Tikuyembekezera kuyankhulana ndi achinyamata omwe ali ndi HIV omwe ali mu Blantyre okwanira 341.

### **Kucheza nanu kungatenge nthawi yaitali bwanji?**

Mafunso akhoza kutenga mphindi zapakati pa 30-45.

### **Tikupempha chiyani kwa inu?**

4. Pakuti muli ndi zaka za pakati pa 18 ndi 19, tikupempha ngati mungalore kulowa nawo m’kafukufuku. Mfundo zomwe mungapereke sitidzagawira wina aliyense kuphatikaizapo Makolo anu kapena okuyang’anirani.
5. Poyambirira tidzafuna kuti mumvetsetse zomwe kafukufuku akufuna ndiponso tidzakupatsani nthawi kuti muganizire kaye musanapereke chiganizo chanu.
6. Ngati mungalore kulowa m’kafukufuku ndiponso ngati makolo kapena okuyang’anirani angalore, tidzakufunsani mafunso okhudzana ndi zaka zanu. Kenako, tidzafunsa mafunso okhudaana ndi kamwedwe ka mowa, mmene mumamvera, mmene mulili kumbali ya HIV, katsatiridwe ka ndondomeko ya kamwedwe ka mankhwala a ART komanso zomwe mumaganiza za kusolidwa m’moyo wa tsiku ndi tsiku. Izi sizidzaululidwa kwa aliyense kuphatikizapo anthu omwe mumakumana nawo mmagulu achinyamata apano kapenanso anthu akunyumba kwanu, pokhapokha mutanena kuti muli ndi maganizo ofuna kudzivulaza

kapena kuvulaza wina, apa tidzauza anthu omwe angathe kukuthandizani kapena kuthandiza anthu apabanja panu.

**Pali phindu lililonse potengapo mbali mukafukufukuyi?**

Ngati titapeza kuti pali vuto lililonse ndipo mufunika chithandizo chomwe ife tingakwanitse, tidzauza ndikutumiza munthu woyenerera kuti athandizepo.

**Pali chiopsezo chilichonse kupena kusakhutitsidwa kwa inu?**

Ochititsa kafukufuku adzakufunsani mafunso ammene mumakhalira moyo wanu, ndimmene mumamvera zinthu zomwe zikukuchitikirani zomwe zingakupangitseni kukhala omangika, mukhoza kusankha kuti musayankhe mafunso ena achoncho kapenanso kusayankha mafunso ena onse otsatira. Ife tiyesetsa kuti tikuthandizeni. Katswiri wodziwa za kaganizidwe ka anthu akhalapo kuti atithandize ndiponso tikhoza kukutumizani kwina kuti mukathandizidwe bwino. Ngati tingakhale okhudzika ndi zomwe mungafotokoze, pasanathe masabata awiri kapena atatu tidzafuna kudziwanso mmene mukumvera ndipo tidzapereka chithandizo china chapamwamba ngati kungafunike kutero.

**Muli ndi chisankho chotani?**

Mukhoza kusankha kutenga nawo mbali kapena osatenga nawo mbali. Ngati mungasankhe kusatenga nawo mbali palibe chilichonse choipa chomwe tingakuchiteni, mudzapitilira kulandira chithandizo cha ART. Komanso ngati mungasankhe kuti musiire panjira osapitirira ndi kafukufukuyi, mudzapitirirabe kulandira chithandizo.

**Kodi mayankho anu adzasungidwa mwachinsinsi?**

Eya. Sindidzauza wina aliyense ngakhale wogwira ntchito pa chipatala cha ART za zomwe mudzayankhule. Ma fomu osonyeza kuti mwavomera kutengapo mbali adzasungidwa malo osiyana ndi mayankho anu. Ndipo pa mapepala amayankho anu sitidzalembapo mayina.ponena za zomwe zidzayankhidwe tizidzalemba kuti ‘anthu angapo mamwa mowa’ ‘anthu ena anali osweka mtima’ ndi zina zotero. Tikatero tidzaona ngati mafunso athu anali bwino kapena anayenera kusinthidwa.

**Ndi mayankho ati amene tingauze anthu ena?**

Ngati mungauze wina aliyense ogwira ntchito kuti mufuna kudzivulaza kapena kuvulaza wina aliyense, tidzachitapo kanthu pofuna kuti izi zisachitike. Ngati mudzatiuze kuti mufuna kudzivulaza kapena kuvulaza wina wake, tidzakutengerana kuchipatala kuti muthandizike. Ngati mungatiuze kuti mwana kapena wina aliyense wakuti ali pachiopsezo, tidzachitapo kanthu. Ngati munganene kuti kuti munavulazidwapo kapena mukuopa kuchitidwa chipongwe, tidzachitaponso kanthu. Izi zikhoza kukhudza mabungwe oyenera ngati apolisi ndi mabungwe ena omwe amathandiza pa zinthu ngati izi.

**Chidzachitike ndi chiyani kafukufukuyi akadzatha?**

Kafukufukuyi akadzatha, mfundo zonse zotolerredwa zidzayang’anidwa bwino lomwe ndipo zidasindikidwa mabuku a sukulu pamodzi ndi mfundo zotolerredwa kudzera mafomu a



kafukufuku. Izi sidzaikapo maina ndi makeyala aanthu otenga nawo mbali mukafukufuku. Tikhoza kupereka mfundozi popanda maina ndi zizindikiro zanu kwa amene angafunitsitse kudziwa mfundo zokhudza achinyamata omwe ali ndi HIV omwe akulandira chithandizo cha ART. Mfundozi zidzaikidwa pamodzi ndi mfundo zina ku Division ya Public Mental Health Postgraduate Research Registry.

### **Mupezapo chiyani pakutithandiza mu kafukufukuyi?**

Aliyense otengapo mbali adzalandira chiphaso chogulira katundu wokwanira R50 ngati chipukuta misozi pa nthawi yomwe akhala akubwera ku chipatala cha ART kudzayankha mafunso a kafukufuku, komanso kubwezeredwa ndalama yoyendera yokwanira R100.

### **Kafukufuku wamtsogolo**

Ngati mungalore kupereka nambala ya lamy kuti tingalumikizane nanu, tikhoza kudzakufunaninso pa kafukufuku wina wamtsogolo. Nthawiyo mudzayenera kulembanso ma fomu ena osonyeza kuti mwavomera kutenga nawonso mbala mu kafukufuku ameneyo. Ngati mudzakhale musanakwane zaka 18, tidzafunsanso Makolo anu kapena okuyang'anira kuti nawonso avomere kuti mutenge nawo mbali mukafukufukuyo.

### **Mungalumikizane ndi ndani mutakhala ndi mafunso pa za kafukufukuyi?**

Mukhoza kulumikizana ndiine John Kuyokwa, poimba lamy kapena pa makina a inteneti kapenanso kulumikizana ndi oyang'anira za maphunziro anga a Dr Claire van der Westhuizen, Prof. Katherine Sorsdahl, Dr Chiwoza Bandawe kapena ogwira ntchito pa Yunivesite ya Cape Town. Onani m'munsimu momwe tingalumikizirane.

### **Ngati muli ndi mafunso kapena ndemanga kapena chilichonse chaphindu chokhudza kafukufukuyi lumikizani ndi ochita kafukufuku potsatira izi:**

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Email: [cbandawe@gmail.com](mailto:cbandawe@gmail.com)

Mutafuna kudziwa zambiri zokhudza ufulu wa anthu otenga nawo mbali mukafukufuku mukhoza kulumikizananso ndi a UCT FHS Human Research Ethics Committee pa 021 406 6338 kapenanso mungagwiritse ntchito makina a intaneti a Mayi Lamees Emjedi pa [lamees.emjedi@uct.ac.za](mailto:lamees.emjedi@uct.ac.za).

**Fomuyi mutenga kuti mukasunge.**

### **Appendix 3: Ethical approval letters**

Telephone: + 265 789 400  
Facsimile: + 265 789 431

All Communications should be addressed to:  
The Secretary for Health



In reply please quote No. ....

MINISTRY OF HEALTH

P.O. BOX 30377  
LILONGWE 3  
MALAWI

22<sup>nd</sup> April, 2022

John Kuyokwa  
Malawi College of Health Sciences

Dear Sir/ Madam

**RE: Protocol #22/04/2891: Prevalence and predictors of alcohol use among HIV positive Malawian adolescents attending selected Anti-Retroviral Treatment clinics in Blantyre, Malawi**

Thank you for the above titled proposal that you submitted to the National Health Sciences Research Committee (NHSRC) for review. Please be advised that the NHSRC has **reviewed** and **approved** the above named study.

- **APPROVAL NUMBER** :2891
- The above details should be used on all correspondences, consent forms and documents as appropriate.
- **APPROVAL DATE** :22/04/2022
- **EXPIRATION DATE** :22/04/2023  
This approval expires on 22/04/2023. After this date, this project may only continue upon renewal. For purposes of renewal, a progress report on a standard form obtainable from the NHSRC Secretariat should be submitted one month before the expiration date for continuing review.
- **SERIOUS ADVERSE EVENT REPORTING:** All serious problems having to do with subject safety must be reported to the NHSRC within 10 working days using standard forms obtainable from the NHSRC Secretariat.
- **MODIFICATIONS:** Prior NHSRC approval using forms obtainable from the NHSRC Secretariat is required before implementing any changes in the protocol (including changes in the consent documents). You may not use any other consent documents besides those approved by the NHSRC.
- **TERMINATION OF STUDY:** On termination of a study, a report has to be submitted to the NHSRC using standard forms obtainable from the NHSRC Secretariat.
- **QUESTIONS:** Please contact the NHSRC on phone number +265 999397913 or by email on [mohdocentre@gmail.com](mailto:mohdocentre@gmail.com).
- **OTHER:** Please be reminded to send in copies of your final research results for our records (Health Research Database).

Kind regards from the NHSRC Secretariat.

For: **CHAIRPERSON, NATIONAL HEALTH SCIENCES RESEARCH COMMITTEE**  
Promoting Ethical Conduct of Research<sup>1</sup>



**Executive Committee: Dr. Martias Joshua (Chairperson), Dr. Evelyn Chitsa Banda (Vice-Chairperson)**  
**Registered with the USA Office for Human Research Protections (OHRP) as an International IRBIRB**  
**Number IRB00003905 FWA00005976**



# CERTIFICATE OF ETHICS APPROVAL

This is to certify that the National Health Sciences Research Committee  
has reviewed and approved the study titled:

Study Title: Protocol #22/04/2891: Prevalence and Predictors of Alcohol use among HIV Positive Malawian  
Adolescents Attending Selected Anti-Retroviral Treatment Clinics in Blantyre, Malawi.

Investigator: John Kuyokwa

StartDate: 22/04/2022

EndDate: 21/04/2023

Date of issue: 22/04/2022

Dr Collins Mitambo  
For Chairperson-NHSRC

Mr Billy Nyambalo  
NHSRC Administrator



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

Communication should be addressed to:  
**Blantyre District Council**  
**Director of Health and Social Services**  
0882002533; gkawalazira@yahoo.co.uk



In reply please quote No. ....

DISTRICT HEALTH OFFICE  
P/BAG 66  
BLANTYRE  
MALAWI

**Date: 14<sup>th</sup> December, 2021**

The Chairperson  
National Health Sciences Research Committee  
P.O. BOX 30377  
**LILONGWE 3**

Dear sir / madam

**LETTER OF SUPPORT FOR STUDY TITLED "PREVALANCE AND PREDICTORS OF ALCOHOL USE AMONG HIV POSITIVE MALAWIAN ADOLESCENTS"**

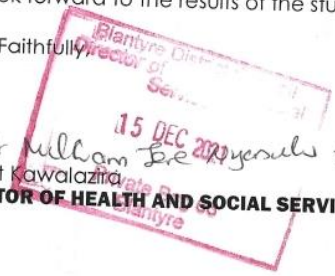
I write to confirm on the approval of the study as above, the study was approved by Blantyre District Management Team. The objective of the study to explore the prevalence and factors related to alcohol use among adolescent living with HIV, this study will help in identifying effect and personal risks of alcohol.

Blantyre District Health Office measures the right to stop the study at any time if ethical principles or study protocols are not followed.

We look forward to the results of the study.

Yours Faithfully

*Dr. G. Kawalazira*  
PP Dr. William Jere  
Dr. Gift Kawalazira  
**DIRECTOR OF HEALTH AND SOCIAL SERVICES**





**UNIVERSITY OF CAPE TOWN**  
**Faculty of Health Sciences**  
**Human Research Ethics Committee**



Room 45 E-52-E-Floor- Old Main Building  
Grootte Schuur Hospital  
Observatory 7925  
Telephone [021] 406 6492  
Email: [hrec-submissions@uct.ac.za](mailto:hrec-submissions@uct.ac.za)  
Website: [www.health.uct.ac.za/fhs/research/humanethics/forms](http://www.health.uct.ac.za/fhs/research/humanethics/forms)

22 March 2022

**HREC REF: 009/2022**

**Dr C van der Westhuizen**

Alan J Flisher Centre for Public Mental Health  
Psychiatry & Mental Health-Rondebosch  
Email: [Claire.vanderwesthuizen@uct.ac.za](mailto:Claire.vanderwesthuizen@uct.ac.za)  
Student: [Johnkuyokwa@gmail.com](mailto:Johnkuyokwa@gmail.com)

Dear Dr van der Westhuizen

**PROJECT TITLE: PREVALENCE AND PREDICTORS OF ALCOHOL USE AMONG HIV-POSITIVE MALAWIAN ADOLESCENTS ATTENDING SELECTED ANTI-RETROVIRAL TREATMENT CLINICS IN BLANTYRE, MALAWI.  
(MASTER'S DEGREE - MR JOHN MULINDA KUYOKWA)**

Thank you for your response letter, addressing the Issues raised by the Faculty of Health Sciences Human Research Ethics Committee (HREC).

It is a pleasure to Inform you that the HREC has **formally approved** the above-mentioned study.

**This approval is subject to strict adherence to the HREC recommendations regarding research involving human participants during COVID -19, our letter dated 02 February 2022 provides guidance found on our website:  
<http://www.health.uct.ac.za/fhs/research/humanethics/forms>**

**Approval is granted for one year until the 30 March 2023.**

Please submit a progress form, using the standardised Annual Report Form if the study continues beyond the approval period. Please submit a Standard Closure form if the study is completed within the approval period.  
(Forms can be found on our website: [www.health.uct.ac.za/fhs/research/humanethics/forms](http://www.health.uct.ac.za/fhs/research/humanethics/forms))

***The HREC acknowledge that the student: - Mr John Kuyokwa will also be Involved in this study.***

**Please quote the HREC REF 009/2022 in all your correspondence.**

Please note that the ongoing ethical conduct of the study remains the responsibility of the principal Investigator.

Please note that for all studies approved by the HREC, the principal Investigator **must** obtain appropriate institutional approval, where necessary, before the research may occur.

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Yours sincerely

**PROFESSOR M BLOCKMAN**

**CHAIRPERSON, FACULTY OF HEALTH SCIENCES HUMAN RESEARCH ETHICS COMMITTEE**

Federal Wide Assurance Number: FWA00001637. Institutional Review Board (IRB) number: IRB00001938 NHREC-registration number: REC-210208-007

This serves to confirm that the University of Cape Town Human Research Ethics Committee complies to the Ethics Standards for Clinical Research with a new drug in patients, based on the Medical Research Council (MRC-SA), Food and Drug Administration (FDA-USA), International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use: Good Clinical Practice (ICH GCP), South African Good Clinical Practice Guidelines (DoH 2020), based on the Association of the British Pharmaceutical Industry Guidelines (ABPI), and Declaration of Helsinki (2013) guidelines. The Human Research Ethics Committee granting this approval is in compliance with the ICH Harmonised Tripartite Guidelines E6: Note for Guidance on Good Clinical Practice (CPMP/ICH/135/95) and FDA Code Federal Regulation Part 50, 56 and 312.



## Appendix 4: Study Questionnaire-chichewa version

TSIKU: \_\_\_\_ / \_\_\_\_ / 2020

QUESTIONNAIRE NO: \_\_\_\_

### MALANGIZO:

1. Chonde, lembani m' mipata mwapatsidwayo pochonga yankho yoyenerera
2. Chonde, musalemebepo dzina lanu pa pepalali.
3. Chonde, mukamaliza kuyankha mafusno onse perekani pepalali kwa munthu woyenera.

### GAWO A: MBIRI YANU

Variable		RESPONSES		
<b>1. Chibadwidwe</b>		1. wamwamuna	2. wamkazi	
<b>2. Mtundu</b>		1. Lomwe	4. Chewa	7. Yao
		2. Tumbuka	5. Tonga	8. Sena
		3. Lambya	6. Ngoni	9. Ngonde
<b>3. Zaka zakubadwa</b>		1. 13 - 15	2. 16 - 19	
<b>4. Mbiri ya banja</b>		1. Simunalowe m'banja	2. Ndinu wapanja	3. munalekana
<b>5. Chipembedzo</b>	<b>M'khristu</b>	1. wa Catholic	2. wa Pentecostals	3. wa Presbyterian
		4. wa Adventist	5. wa Lutheran	
	<b>M'silamu</b>	1. wa Shia	2. wa Sunni	
<b>6. Maphunziro</b>		1. ku pulayimale	2. ku secondale	3. ku Koleji
<b>7. Kokhala</b>		1. M'tauni	2. Kumudzi	
<b>8. Ana omwe muli nawo</b>		1. Osapitirira pa awiri	2. Atatu kapena anayi	3. Asanu ndikupitirira

**GAWO B : HIV NDI KAMWEDWE KA MANKHWALA OTALIKITSA MOYO (MA ARV)**

MAFUNSO	MAYANKHO		
		Eya	Ayi
1. Kodi mukudziwa ngati muli ndi kachilombo ka HIV?			
2. Munakatenga bwanji?	Pobadwa		
	Mutakula kale		
3. Kodi kutalika kwa mtunda wokatenga mankhwala ama ARV kumakupangitsani kuti muzilephera kumwa mankhwalawa mwandondomeko?			
4. Kodi matenda osiyanasiyana monga TB kapena PCP amakulepheretsani kumwa ma ARV mwandondomeko?			
5. Kodi chiopsezo chokatenga COVID-19 kuchipatala pokapeza ma ARV chimakulepheretsani kumwa mankhwalawa mwandondomeko?			
6. Kodi mavuto obwera chifukwa chakusagwirizana kwa mankhwala a ma ARV ndi thupi lanu kumakupangitsani kuti musamamwe mankhwalawa mwandondomeko?			
7. Kodi mumalephera kumwa mankhwala a ma ARV mwandondomeko chifukwa chakuopa kusolidwa mutadziwika kuti muli ndi HIV?			
8. Kodi zoyankhula zosakhala bwino zochokera kwa anzanu zonena mmene inu mulili m'thupi zimakupangitsani kuti musamamwe mankhwalawa mwandondomeko?			
9. Kodi kusoweka kwa ubale wabwino ndi ogwira ntchito za chipatala kumakulepheretsani kumwa mankhwala a ma ARV motsatira dongosolo?			
10. Kodi kusoweka kwa magulu olimbikitsana nawo kumakulepheretsani kumwa mankhwala ama ARV motsatira ndondomeko yake?			
11. Kodi kusowa kwa chilimbikitso chochokera kkkwa Makolo ndi abale kumakupheretsani kumwa mankhwala ama ARV motsatira nondomeko yake?			
12. Kodi umasiye umakulepheretsani kumwa mankhwala ama ARV mwandondomeko yake?			

13. Kodi umphawi umakulepheretsani kumwa mankhwala ama ARV mwandondomeko yake?			
14. Mwakhala kumwa mankhwala ama ARV kwa nthawi yayitali bwanji?	Mosapitirira miyezi itatu		
	Mopitirira miyezi itatu		
15. Mu mwezi wapitawu, simunamwe mankhwalawa kwa masiku anagti?	Osapitirira masiku 3		
	Pakati pamasiku 4-6		
	Pakati pamasiku 7-14		
	Masiku opitirira 14		

### **GAWO C: KAFUKUFU WACHIKHALIDWE CHANU**

Mafunso otsatira akufunsa za kumwa mowa wosiyanasiyana monga ‘beer, wine, spirits, ndi ma ciders’ mu miyezi 12 yapitayi. Kumbukirani kuti mayankho anu siadzaperekedwa kwa munthu winanso.

1	Mumamwa mowa mowilikiza bwanji? ( <i>sankhani yankho limodzi</i> )	Sindimamwa	0
	<b>Ngati mwayankha kuti simumamwa, kayankhe kuyambira gawo lachinayi (4).</b>	Kamodzi pamwezi	1
		Pakati pa kawiri ndi kanayi pa mwezi	2
		Pakati pa kawiri ndi katatu pa pa sabata	3
		Pakati kanayi kapena kupitirira pamenepo pa sabata	4
2	Mumamwa zakumwa zochuluka bwanji pa tsiku pamwene mwaganiza kuti mumwa? (chakumwa chimodzi mulingo wake ndi botolo limodzi la mowa, kapena tambula imodzi ya mowa kapenanso toti imodzi).	1 kapena 2	0
		3 kapena 4	1

5 kapena 6	2
7 kapena 9	3
10 kapena kupitirira pamenepo	4

Otsatirawa ndi mafunso ammene mumamwera. Sankhani yankho lomwe likuonetsa za mmene mumamwera.

		Ayi	Mosapiti rira pa mwezi	Pa mwezi	Pa sabata	Pafupifu pi tsiku lilonse kapena tsiku ndi tsiku
3	Ndikawiri kawiri motani pamene mumatha kumamwa zakumwa zinayi kapena kupitirira apo?	0	1	2	3	4
4.	Ndi kangati mu chaka chapitachi munapezeka kuti mumafuna kumangomwabe mutauyamba mowa pa nthawi imeneyo?	0	1	2	3	4
5.	Ndi kangati mu chaka chapitachi komwe munalephera kuchita zomwe mumayenera kuchita chifukwa cha mowa?	0	1	2	3	4
6.	Ndi kangati mu chaka chapitachi pomwe munafuna mutamwa kaye mowa nthawi ya mmawa kuti mukwanitse zimene mumafuna kuchita chifukwa chakuti dzulo lake munali mutaledzera kwambiri?	0	1	2	3	4
7.	Ndi kangati mu chaka chapitachi munapezekeza mukudzimvera nokha chisoni chifukwa cha kuledzera kwa tsiku lapitalo?	0	1	2	3	4
8.	Ndi kangati mu chaka chapitachi pomwe munazizindikira kuti simukukumbuka chilichonse chomwe chachitika dzulo lake chifukwa chakuledzera kwambiri?	0	1	2	3	4

		Ayi	Eya, koma osati chaka chatha	Eya, mu chaka chatha
9.	Munavulalapo kapena wina womudziwa anavulalapo chifukwa choledzera?	0	2	4
10.	Pali m'bale, mnzanu, dotolo kapena wa chipatala wina aliyense amene anakhudzika ndikuledzera kwanu mpaka kukudzudzulani kuti muchepetse?	0	2	4

**Kuphatikiza mayankhidwe anu:**

$$Q1 + Q2 + Q3 + Q4 + Q5 + Q6 + Q7 + Q8 + Q9 + Q10 = \underline{\hspace{2cm}}$$

**GAWO D**

**Center for Epidemiologic Studies Short Depression Scale (CES-D-R 10)**

Mmunsimu muli zofotokoza za mmene mumadzionera kapena mmene mumakhalira. Chonde yankhani mogwirizana ndi mmene zakhalaira sabata yathayi pochonga mu bokosi loyenera pa funso lililonse.

		<b>Sizimachitikachitika kapena sizimachitika nkomwe</b> (osakwana tsiku limodzi)	Nthawi zina kapena mwapang'ono (tsiku limodzi kapena awiri)	mwapakatikati (masiku 3 kapena 4)	Nthawi zonse Masiku 5 mpaka 7
1.	Ndinakhudzika ndi zinthu zomwe nthawi zambiri sindikhudzika nazo.				
2.	Ndinali ndi vuto oyikira chidwi pa zimene ndimachita.				
3.	Ndimakhala osasangalala.				
4.	Ndimaona kuti ndikuyesetsa pa zimene ndimachita				
5.	Ndimaona kuti tsogolo ndi lowala.				
6.	Ndimakhala oopa				
7.	Ndimasowa tulo				
8.	Ndinali osangalala.				
9.	Ndimadziona opanda anzanga.				
10.	Ndimangoona kuti sizikuyenda				

<b>Total Score</b>	
--------------------	--

**GAWO E – KUKULA KWA KUSALIDWA**

<b>MAYANKHO</b>	<b>Kukana ndi mtima onse</b>	<b>kukana</b>	<b>Sindikukana kapena kuvomera</b>	<b>ndikuvomera</b>	<b>Ndikuvomera ndi mtima onse</b>
<b>Makhalidwe oyipa kwa odwala EDZI kapena opezeka ndi HIV</b>					
1. Akubanja kwa munthu amene ali ndi HIV kapena wodwala EDZI azichita manyazi					
2. Anthu opezeka ndi HIV kapena omwe akudwala EDZI azichita manyazi.					
3. People who have HIV AIDS are cursed.					
4. Anthu amene ali ndi HIV kapena odwala HIV samandisangalatsa					
5. Anthu amene ali ndi HIV kapena odwala HIV akuyenera chilango					
6. Ndipomveka kuwachotsa ntchito anthu amene ali ndi HIV kapena odwala HIV					
7. Anthu amene ali ndi HIV kapena odwala HIV sakuyenera kumakhala pagulu.					
8. Anthu amene ali ndi HIV kapena odwala HIV sakuyenera kukhala ndi ufulu mofanana ndi anthu ena onse.					
<b>Kusalana koonekeratu</b>					
1. Anthu amene ali ndi HIV kapena odwala EDZI mudera lino amakanidwa ndi anzawo.					
2. Anthu amene ali ndi HIV kapena odwala EDZI amanyozedwa kapena kunyogodolewa.					
3. Anthu amene ali ndi HIV kapena odwala EDZI mudera					



lino amakanidwa ndi anthu a m'banja mwawo.					
4. Anthu amene amaganiziridwa kuti ali ndi HIV kapena kuti akudwala EDZI sapatsidwanso ulemu.					
5. Anthu amene ali ndi HIV kapena odwala EDZI mudera lino amamenyedwa.					
6. Anthu ambiri samagula ndiwo za masamba ndi zinthu zina kwa munthu amene akudziwa kuti ali ndi HIV kapena akudwala EDZI.					
<b>Kusakondera</b>					
1. Achipatala akuyenera kuthandiza anthu amene ali ndi HIV kapena odwala EDZI akuyenera kuthandizidwa chimodzimidzi ndi anthu omwe alibe HIV.					
2. Anthu amene ali ndi HIV kapena odwala EDZI akuyenera kukhala nawo pazochitika zili zonse za mudera lino.					
3. Anthu odwala EDZI akuyenera kugwira ntchito ndi anthu ena onse.					
4. Anthu amene ali ndi HIV kapena odwala EDZI akuyenera kutenga chimodzimidzi ndi aliyense.					

**GAWO F : Chithandizo chomwe chimapezeka**

1. Amandichezetsa	Eya	Iyayi
2. Amandilimbikitsa pa zomwe ndikuchita		
3. Amandiyendera		
4. Amandibwereka zinthu zina ndi zina monga ndalama		
5. Amandiunikira njira yabwino		

6. Amandiona ofunikira		
7. Amandilangiza pa mavuto osiyanasiyana apa khomo		
8. Amandiimbira pofuna kuti tingocheza		
9. Amandimvetsetsa		
10. Amandidzudzula mondiongolera		
11. Amanditengera malo osiyanasiyana		
12. Amandionetsa chikondi		
13. Amandithandiza pomwe zinthu zasintha		
14. Amandithandiza pomwe mwapadera panthawi yakudwala, kusamuka kapena kulera mwana		
15. Amandiuza kuti ndimvetsetse pomwe zinalakwika		
16. Amaperekeza kokagula zinthu, kokaonera kanema, kumpira kapena kukhalira limodzi tsiku lonse		
17. Amandisisita		
18. Mandithandiza pa zinthu za tsiku ndi tsiku ngati kusamalira pa nyumba konanso ti ntchito tina ndi tina		
19. Amayamikira Mfundo zanga zabwino		
20. Amanditengera ku phwando kapena kunditengera kokadya		

### Brown (1986) : MAFUNSO AKU KETENGEKA

Pano pali *NDEMANGA ZIWILI* kufotokozela *KETENGEKA* ngati anzanu akukulimbisani mtima kuti muchite chithu kapena ayi. Pa ndemanga ziwiri, MUWELENEGE zones ndemangazo ndi kupanga chisankho ngati anzanu kwabiri akukulibisani mtima kuti musankhe ndemanga za ku MANZELE kapena KUMANJA. Ndiye muchonga, “X” mumodzi mwama bokosi amene alipafupi ndi ndemanga imene mwasankha, potengela M’MENE azanu akukulibisani mtima kuti muchite zofuna iwowo(“Pan’gano,” “Pan’gano choncho” or “Kwambiri”). Ngati mukuganiza kuti anzanu sakukukakamizani kuti mu chite chinthu, mu chonge pakati (“Palibe Kutengeka”) box.

Kumbukirani, chongani PAMODZI “X” pa pamodzi pa ndemanga ziwili.

<b>NKOCHULUKA MOTANI kukakamizidwa ku chokera kwa NZANU kuti: . . . .</b>	<b>Kwa mbiri</b>	<b>Pan’ gano choncho</b>	<b>Pan’ gano</b>	<b>Palib e Ketengeka</b>	<b>Pan’ gano</b>	<b>Pan’ gano choncho</b>	<b>Kwa mbiri</b>	<b>Kepepa: .....</b>
Kuwerenga kwambiri, kugwira ntchito yasukulu kunyumba, etc.	3	2	1	S38	-1	-2	-3	Musawerenge kapena, kugwira ntchito yasukulu kunyumba,
Mutenge kalasi YINA kusiyana ndiimene nzanu akutenga	-3	-2	-1	C23	1	2	3	Mutenge kalasi YOFANA ndiimene nzanu akutenga
Musute chamba,	3	2	1	M59	-1	-2	-3	Musachite zinjoyi, muzichita zinthu panokha, Komanso musasute chamba
Zinjoyi, mupange zinthu ndi anthu ena	3	2	1	P39	-1	-2	-3	NOT be social, do things by yourself
Musakhale olimba mtima, musamamenyane	-3	-2	-1	M42	1	2	3	muyesese kulimba mtima , mukhoza kumenyana.
Mukhale pa kugulu ndi azan uku sukulu amene mukufuna	-3	-2	-1		1	2	3	Muyesese kukhala pa gulu osati magulu ena
Mzipanga zomwe makolo akufuna	3	2	1	F52	-1	-2	-3	Musapanga zimene makolo akufuna
Kukwale ndi chibwenzi (Wamwamuna kapena wankazi).	3	2	1		-1	-2	-3	Musakhale ndi chibwenzi(Wamwamuna kapena wankazi).
Mumwe mowa	3	2	1	M65	-1	-2	-3	Musamwe mowa

Musamapange zithu ndi banja lanu	-3	-2	-1	F41	1	2	3	Musamapanga zinthu zambiri ndi banja lanu
Musapite kovina kusukulu	-3	-2	-1	P21	1	2	3	Muzipita kovina kusukulu
Mzikhala ndi anzanu pa magulu ku sukulu	3	2	1	C35	-1	-2	-3	Msakhale ndi anzanu pa magulu ku sukulu
Musagwire ntchito yowonjezera	-3	-2	-1		1	2	3	Muzigwira tchito yowonjezera
Mupezeke pa nyumba nthawi imene makolo akufuna	3	2	1	F47	-1	-2	-3	Kumabwera mochedwa poyelekeza nthawi imene makolo akufuna
<b>NKOCHULUKA MOTANI kukakamizidwa ku chokera kwa NZANU kuti: . . . .</b>	<b>Kwa mbiri</b>	<b>Pan' gano chon cho</b>	<b>Pan' gano</b>	<b>Palib e Keten geka</b>	<b>Pan' gano</b>	<b>Pan' gano chon cho</b>	<b>Kwa mbiri</b>	<b>Kepepa: .....</b>
Muchitebwino, kukhala wochitabwino pachinache monga masewero (ampila)	3	2	1		-1	-2	-3	Osakhala opambana kuposa anzanu pa zochitika
Kusapita ku maphwando	-3	-2	-1	P53	1	2	3	Kupita kumaphwando
Kutenga makalasi apamwamba	3	2	1	S35	-1	-2	-3	Kusatenga makalasi apamwamba
Kusayesela kukhala ndi anzanu otchuka	-3	-2	-1	C30	1	2	3	Kuyesela kukhala ndi anzanu otchuka
Kuvala zovala zimozizimozi ngati azanu	3	2	1	C36	-1	-2	-3	Kuvala zovala zisiyana ndi azanu
“Kucheza mwachikondi”	3	2	1		-1	-2	-3	“Kusacheza mwachikondi”
Kusuta fodya	3	2	1	M59	-1	-2	-3	Kusasuta fodya
Muzikhala ngati wankulu muzochitika	-3	-2	-1		1	2	3	Kuyesela kuwoneka ngati wang'ono muzochitika
Kumaliza sekondale sukulu	3	2	1	S39	-1	-2	-3	Kusiya sukulu
Kukhala muwuzimu muzochitika (Kumupingo, chinyamata).	3	2	1		-1	-2	-3	Kusakhala muwuzimu muzochitika (Kumupingo, chinyamata).
Muyankhula kapena kuchita mosiyana ndi azanu muzochitika	-3	-2	-1	C41	1	2	3	Muyankhula kapena kuchita chimodzichidzi ndi azanu muzochitika
Muzikhala thawi yanu panokha kapena banja lanu	-3	-2	-1	P34	1	2	3	Muzikhala thawi yanu ndi anzanu.
Kukhala olezera	3	2	1	M71	-1	-2	-3	Osalezera
Kusaba	-3	-2	-1	M50	1	2	3	Kuba zinthu
Musakhale ndinzelu kwambiri	-3	-2	-1	S32	1	2	3	Mukhale nd nzelu mumemungakwanisile

Kukacheza ndi asikana kapena anyamata (osiyana chibadidwe).	3	2	1	P52	-1	-2	-3	Kusakacheza ndi asikana kapena anyamata (osiyana chibadidwe).
Kukondwedwa ndi aphunzitsi	3	2	1	S46	-1	-2	-3	Kusakondwedwa ndi aphunzitsi
Kuvala nsisi mosiyana ndi anzanu	-3	-2	-1	C43	1	2	3	Kuvala nsisi kufanana ndi anzanu
Kupite ku mpira	3	2	1		-1	-2	-3	Kusapita ku mpira
Kumwa mowa musakwane za 18	3	2	1	M67	-1	-2	-3	Kusamwa mowa musakwane za 18
<b>NKOCHULUKA MOTANI kukakamizidwa ku chokera kwa NZANU kuti: . . . .</b>	<b>Kwa mbiri</b>	<b>Pan' gano chon cho</b>	<b>Pan' gano</b>	<b>Palib e Keten geka</b>	<b>Pan' gano</b>	<b>Pan' gano chon cho</b>	<b>Kwa mbiri</b>	<b>Kepepa: .....</b>
Kusafunsa anzanu amene mukuyenda nawo	3	2	1	C17	-1	-2	-3	Kuyenda ndimunthu amene anzanu akulolezani
Kusawonetsa ulemu kwa anthu akulu akulu.	3	2	1	F53	-1	-2	-3	Kuwonetsa ulemu kwa anthu akulu akulu
Kupita kumasewelo ku sukulu monga mpila wamyendo.	3	2	1	P26	-1	-2	-3	Kusapita kumasewelo ku sukulu monga mpila wamyendo.
Kusasiya maphunziro kapena kusiya sukulu	3	2	1	S44	-1	-2	-3	Kusiya maphunziro kapena kusiya sukulu
Kusapita kuzisangalalo	3	2	1	P31	-1	-2	-3	Kupita kuzisangalalo
Kusasatila zomwe makolo atiwuza kuchita	3	2	1	F62	-1	-2	-3	Kusatila zomwe makolo atiwuza kuchita
Kukhala ndi maganizo amodzi pakhuzana ndi zinthu ngati a anzanu	3	2	1	C33	-1	-2	-3	Kukhala ndi maganizo osiyana akhuzana ndi zinthu ngati a anzanu
Kuyesesa kukhoza bwino	3	2	1	S59	-1	-2	-3	Kusayesesa kukhoza bwino
Kusawononga zinthu monga ma windo	3	2	1	M51	-1	-2	-3	Kuwononga zinthu monga ma windo

Kuyesela kukhala owonda	3	2	1		-1	-2	-3	Kuyesela kukhala onepa
Kusawawuza makola kumene mukupita and ndizimene mukuchita	3	2	1	F50	-1	-2	-3	Kuwawuza makola kumene mukupita and ndizimene mukuchita
Kunvera nyimbo ndi magula amene winaaliyense akufuna	3	2	1	C36	-1	-2	-3	Kunvera nyimbo ndi magula amene winaaliyense sakulifuna
Kusagonana	-3	-2	-1	M52	1	2	3	Kumagonana
Kukhala bwino ndi makolo	3	2	1	F53	-1	-2	-3	Kusakhala bwino ndi makolo
Zisangalalo	3	2	1	P47 M52	-1	-2	-3	Kusapanga za zisangalalo
Kukacheza ndi azanu kumapeto a sabata	3	2	1	P61	-1	-2	-3	Kukhala pakhomu kumapeto a sabata
Kusagwiritsa mankhwala ozuguza ubongo	-3	-2	-1	M55	1	2	3	Kugwiritsa mankhwala ozuguza ubongo
Kuchita zinthu zosangalasa nsikana ukakhala munyamata kapena nsikana kusangalasa munyamata	3	2	1	P46	-1	-2	-3	Kusachita zinthu zosangalasa nsikana ukakhala munyamata kapena nsikana kusangalasa munyamata
Kuwavutisa a phunzitsi	3	2	1	S42	-1	-2	-3	Kusawavutisa a phunzitsi

**Appendix 5: Study Questionnaire**

**DATE:** \_\_\_\_ / \_\_\_\_ / **2021**

**QUESTIONNAIRE NO:** \_\_\_\_\_

**INSTRUCTIONS:**

- 4. Please fill in the blank spaces and tick appropriate answer wherever possible
- 5. Please do not write the name of the participant on the questionnaire.

**SECTION A**

**SOCIO-DEMOGRAPHICS**

Date:  
Participant name:  
Name of interviewer:  
Site:

<b>Variable</b>	<b>RESPONSES</b>		
<b>Socio-demographics</b>	<b>Individual risk factors</b>		
<b>1.Sex</b>	1. Male	2. Female	
<b>2.Ethnic</b>	1. Lomwe	4. Chewa	7. Yao
	2. Tumbuka	5. Tonga	8. Sena
	3. Lambya	6. Ngoni	9. Ngonde
<b>3.Age</b>	10 -15	16-19	
<b>4.Religion</b>	Christian	Muslim	Other Specify:
<b>5.Residence</b>	Urban	Rural	

<b>6.Education</b>	Are you attending school?	Yes	If yes, are you studying?		Primary	University/ college
		No	If no, are you working?		Secondary	
				Business	Formal employment	
				Just staying home	Informal employment	
What's your highest grade you have completed				Primary	University/ college	
				Secondary		
<b>7.Employment</b>	Are your parents/care giver permanently employed?			Yes	No	
<b>8.Family</b>	Whom do stay with?	Both parents (mother and father)	Siblings	Grand parent	Uncle	
		Mother only	Father only	Adopted	Relative	

### GLOBAL SCHOOL-BASED STUDENT HEALTH SURVEY.

The next 8 questions I will ask about drinking alcohol. This includes drinking beer, arak, whiskey, wine, vodka, and juices that contain alcohol (Smirnoff ice, Bacardi breeze, XLL, or Buzz). Drinking alcohol does not include drinking a few sips of wine for religious purposes. A “drink” is a glass of wine, a bottle of beer, a small glass of liquor, or a mixed drink.

1. How old were you when you had your first drink of alcohol other than a few sips?

- A. I have never had a drink of alcohol other than a few sips
- B. 7 years old or younger
- C. 8 or 9 years old
- D. 10 or 11 years old
- E. 12 or 13 years old
- F. 14 or 15 years old
- G. 16 or 17 years old
- H. 18 years old or older



2. During the past 30 days, on how many days did you have at least one drink containing alcohol?

- A. 0 days
- B. 1 or 2 days
- C. 3 to 5 days
- D. 6 to 9 days
- E. 10 to 19 days
- F. 20 to 29 days
- G. All 30 days

3. During the past 30 days, on the days you drank alcohol, how many drinks did you usually drink per day?

- A. I did not drink alcohol during the past 30 days
- B. Less than one drink
- C. 1 drink
- D. 2 drinks
- E. 3 drinks
- F. 4 drinks
- G. 5 or more drinks

4. During the past 30 days, how did you usually get the alcohol you drank? SELECT ONLY ONE RESPONSE.

- A. I did not drink alcohol during the past 30 days
- B. I bought it in a store, shop, or from a street vendor
- C. I gave someone else money to buy it for me
- D. I got it from my friends
- E. I got it from my family
- F. I stole it or got it without permission
- G. I got it some other way

5. If one of your best friends offered you a drink of alcohol, would you drink it?

- A. Definitely not
- B. Probably not
- C. Probably yes

D. Definitely yes

**Staggering when walking, not being able to speak right, and throwing up are some signs of being really drunk.**

6. During your life, how many times did you drink so much alcohol that you were really drunk?

- A. 0 times
- B. 1 or 2 times
- C. 3 to 9 times
- D. 10 or more times

7. During your life, how many times have you got into trouble with your family or friends, missed school, or got into fights, as a result of drinking alcohol?

- A. 0 times
- B. 1 or 2 times
- C. 3 to 9 times
- D. 10 or more times

8. During the past 12 months, were you taught in any of your classes the problems associated with drinking alcohol?

- A. Yes
- B. No
- C. I do not know

## Section B

### ASSIST-Y (FOR YOUNG PEOPLE)

#### INTRODUCTION (Please read to participant)

I am going to ask you some questions about your experience of using alcohol, tobacco and other drugs in your whole life, and in the past three months. These substances can be used in different ways, for example they can be smoked, swallowed, snorted, inhaled or taken in the form of pills. It is important that you try and answer each of the questions as honestly and accurately as possible. The information you give me will be treated as strictly confidential/private and will not be shared with your parents, unless your immediate safety is threatened. For example, if you reveal an intention to hurt yourself or others, or if your substance use is placing you at high risk. Please be assured that if I need to inform your parents, I will discuss this with your first. As we go through the questions, please let me know if you would like me to repeat any of them, or if there is something you don't understand. Avoid providing too much detail regarding specific substance names or types. Refer to broad substance groups unless the client indicates use.

#### Question 1 (please circle a response for each substance).

<b>In your life, have you ever tried (GO THROUGH LIST ie. Tobacco, Alcohol etc)? (NON-MEDICAL USE ONLY)</b>	<b>Responses</b>	
Tobacco products (cigarettes)	Yes	No
Alcoholic beverages (beer, wine, spirits, etc.)	Yes	No
Cannabis (marijuana, pot, grass, hash, etc.)	Yes	No
Cocaine (coke, crack, etc.)	Yes	No
Amphetamine type stimulants (speed, meth, ecstasy, ice etc.)	Yes	No
Inhalants (nitrous, glue, petrol, paint thinner, etc.)	Yes	No

Sedatives/Sleeping Pills (Valium, Temazepam, Stilnox, etc.)	Yes	No
Hallucinogens (LSD, acid, mushrooms, trips, Ketamine, etc.)	Yes	No
Opioids (heroin, morphine, codeine, etc.)	Yes	No
<b>Robe gently if all answers are negative: “I understand that some of these questions may be a bit confronting or uncomfortable to answer, but it’s important that you are honest so we can help you with whatever problems you might be having”</b>	<b>If still “No” to all items, stop interview. Remind the client they are welcome to come back and discuss their substance use or any other issues at any time. If "Yes" to any of these items, ask Question 2 for each substance ever used.</b>	

**Note: For Qs 2-6 you may need to determine the appropriate frequency of use based on the client’s answer.**

**Question 2 (please circle a response for each substance).**

<b>In the past three months, how often have you used (FIRST DRUG USED, SECOND DRUG, ETC)?</b>	<b>Never</b>	<b>Once or Twice</b>	<b>Monthly</b>	<b>Weekly</b>	<b>Daily or Almost Daily</b>
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Tobacco products (cigarettes)	0	2	3	4	6
Alcoholic beverages (beer, wine, spirits, etc.)	0	2	3	4	6
Cannabis (marijuana, pot, grass, hash, etc.)	0	2	3	4	6
Cocaine (coke, crack, etc.)	0	2	3	4	6
Amphetamine type stimulants (speed, meth, ecstasy, ice etc.)	0	2	3	4	6
Inhalants (nitrous, glue, petrol, paint thinner, etc.)	0	2	3	4	6
Sedatives/Sleeping Pills (Valium, Temazepam, Stilnox, etc.)	0	2	3	4	6
Hallucinogens (LSD, acid, mushrooms, trips, Ketamine, etc.)	0	2	3	4	6
Opioids (heroin, morphine, codeine, etc.)	0	2	3	4	6
Other - specify:	0	2	3	4	6

**If "Never" to all items in Question 2, skip to Question 6. If any substances in Question 2 were used in the previous three months, continue with Questions 3, 4 & 5 for each substance used.**

**Question 3 (please circle a response for each substance)**

<p><b>Have you found yourself using (FIRST DRUG, SECOND DRUG, ETC) when you are away from your usual social situations or friends (eg. maybe when you are alone)?</b></p> <p><b>If YES, how often has that happened in the last 3 months</b></p> <p><b>for (FIRST DRUG, SECOND DRUG, ETC)?</b></p>	Never	Once or Twice	Monthly	Weekly	Daily or Almost Daily
Tobacco products (cigarettes)	0	3	4	5	6
Alcoholic beverages (beer, wine, spirits, etc.)	0	3	4	5	6
Cannabis (marijuana, pot, grass, hash, etc.)	0	3	4	5	6
Cocaine (coke, crack, etc.)	0	3	4	5	6
Amphetamine-type stimulants (speed, meth, ecstasy, ice etc.)	0	3	4	5	6

Inhalants (nitrous, glue, petrol, paint thinner, etc.)	0	3	4	5	6
Sedatives/Sleeping Pills (Valium, Temazepam, Stilnox, etc.)	0	3	4	5	6
Hallucinogens (LSD, acid, mushrooms, trips, Ketamine, etc.)	0	3	4	5	6
Opioids (heroin, morphine, codeine, etc.)	0	3	4	5	6
Other - specify:	0	3	4	5	6

**Prompt regarding 'social situations' (e.g., when at a party or event and others are using).**

**If "No" skip to Question 4.**

**Question 4 (please circle a response for each substance)**

<p>Has your use of (FIRST DRUG, SECOND DRUG, ETC) led to problems with your health, relationships, finances, school or with the police?</p> <p>If YES, how often has that happened in the last 3 months</p> <p>for (FIRST DRUG, SECOND DRUG, ETC)?</p>	Never	Once or Twice	Monthly	Weekly	Daily or Almost Daily
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Tobacco products (cigarettes)	0	4	5	6	7
Alcoholic beverages (beer, wine, spirits, etc.)	0	4	5	6	7
Cannabis (marijuana, pot, grass, hash, etc.)	0	4	5	6	7
Cocaine (coke, crack, etc.)	0	4	5	6	7
Amphetamine type stimulants (speed, meth, ecstasy, ice etc.)	0	4	5	6	7
Inhalants (nitrous, glue, petrol, paint thinner, etc.)	0	4	5	6	7
Sedatives/Sleeping Pills (Valium, Temazepam, Stilnox, etc.)	0	4	5	6	7
Hallucinogens (LSD, acid, mushrooms, trips, Ketamine, etc.)	0	4	5	6	7
Opioids (heroin, morphine, codeine, etc.)	0	4	5	6	7
Other - specify:	0	4	5	6	7

**Question 5 (please circle a response for each substance).**

Has your use of (FIRST DRUG, SECOND DRUG, ETC)	Never	Once or Twice	Monthly	Weekly	Daily or Almost Daily
--	-------	---------------	---------	--------	-----------------------



<p>impacted on your usual activities? (eg. school attendance,</p> <p>involvement in recreational activities or sport, completion of</p> <p>chores, family expectations, family events, homework etc).</p> <p>If YES, how often has this happened in the last 3 months</p> <p>for (FIRST DRUG, SECOND DRUG, ETC)?</p>					
Tobacco products (cigarettes)					
Alcoholic beverages (beer, wine, spirits, etc.)	0	5	6	7	8
Cannabis (marijuana, pot, grass, hash, etc.)	0	5	6	7	8
Cocaine (coke, crack, etc.)	0	5	6	7	8
Amphetamine type stimulants (speed, meth, ecstasy, ice etc.)	0	5	6	7	8
Inhalants (nitrous, glue, petrol, paint thinner, etc.)	0	5	6	7	8

Sedatives/Sleeping Pills (Valium, Temazepam, Stilnox, etc.)	0	5	6	7	8
Hallucinogens (LSD, acid, mushrooms, trips, Ketamine, etc.)	0	5	6	7	8
Opioids (heroin, morphine, codeine, etc.)	0	5	6	7	8
Other - specify:	0	5	6	7	8

**Ask Question 6 for all substances ever used (i.e. those endorsed in Question 1)**

**Question 6 (please circle a response for each substance)**

Has a friend or relative or anyone else ever expressed concern (or worry) about your use of (FIRST DRUG, SECOND DRUG, ETC.)?  If YES, was it within the last 3 months or before that for (FIRST DRUG, SECOND DRUG, ETC.)?	No, Never	Yes, in the past 3 months	<b>Yes, but not in the past 3 months</b>
Tobacco products (cigarettes)	0	6	3

Alcoholic beverages (beer, wine, spirits, etc.)	0	6	3
Cannabis (marijuana, pot, grass, hash, etc.)	0	6	3
Cocaine (coke, crack, etc.)	0	6	3
Amphetamine type stimulants (speed, meth, ecstasy, ice etc.)	0	6	3
Inhalants (nitrous, glue, petrol, paint thinner, etc.)	0	6	3
Sedatives /Sleeping Pills (Valium, Temazepam, Stilnox etc.)	0	6	3
Hallucinogens (LSD, acid, mushrooms, trips, Ketamine, etc.)	0	6	3
Opioids (heroin, morphine, codeine, etc.)	0	6	3
Other – specify:	0	6	3

**Question 7 (please circle the star as per the response)**

	No, Never	Yes, in the past 3 months	Yes, but not in the past 3 months
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Have you ever used any drug by injection?  (NON-MEDICAL USE ONLY)	*	*	*
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**Section C: The generalized anxiety disorder 7-item (GAD-7) scale.**

**Instructions: The following questions ask about your thoughts, feelings, and behaviors**

Over the last 2 weeks, how often have you been bothered by the following problems?	Not at all	Several days	More than half the days	Nearly every day
1. Feeling nervous, anxious or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it is hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3

7. Feeling afraid as if something awful might happen	0	1	2	3
<b>Total Score</b>				
If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?	Not difficult at all	Somewhat difficult	Very difficult	Extremely difficult

**SECTION D**

**Center for Epidemiologic Studies Short Depression Scale (CES-D-R 10)**

Below is a list of ways you may have felt or behaved. Please indicate how often you have felt this way during the past week by checking the appropriate box for each question.

		Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of time (3-4 days)	All of the time (5-7 days)
1.	I was bothered by things that usually don't bother me.				
2.	I had trouble keeping my mind on what I was doing.				
3.	I felt depressed.				
4.	I felt that everything I did was an effort.				
5.	I felt hopeful about the future.				
6.	I felt fearful.				
7.	My sleep was restless.				
8.	I was happy.				
9.	I felt lonely.				
10.	I could not "get going."				

<b>Total Score</b>	
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## SECTION D- MULTIDIMENSIONAL PERCEIVED SOCIAL SUPPORT SCALE

### Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet & Farley, 1988)

**Instructions:** We are interested in how you feel about the following statements. Please indicate how you feel about each statement by circling the appropriate number for each question.

Circle the “1” if you Very Strongly Disagree, Circle the “2” if you Strongly Disagree, Circle the “3” if you Mildly Disagree, Circle the “4” if you are Neutral, Circle the “5” if you Mildly Agree, Circle the “6” if you Strongly Agree, Circle the “7” if you Very Strongly Agree.

The items tended to divide into factor groups relating to the source of the social support, namely family (Fam), friends (Fri) or significant other (SO).

Statement	Responses							
	1	2	3	4	5	6	7	
1. There is a special person who is around when I am in need.	1	2	3	4	5	6	7	SO
2. There is a special person with whom I can share my joys and sorrows.	1	2	3	4	5	6	7	SO
3. My family really tries to help me.	1	2	3	4	5	6	7	Fam
4. I get the emotional help and support I need from my family.	1	2	3	4	5	6	7	Fam
5. I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7	SO
6. My friends really try to help me.	1	2	3	4	5	6	7	Fri

7. I can count on my friends when things go wrong.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>Fri</b>
8. I can talk about my problems with my family.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>Fam</b>
9. I have friends with whom I can share my joys and sorrows.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>Fri</b>
10. There is a special person in my life who cares about my feelings.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>SO</b>
11. My family is willing to help me make decisions.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>Fam</b>
12. I can talk about my problems with my friends.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>Fri</b>



### HIV Stigma Scale for South African Adolescents Living with HIV (ALHIV-SS)

ALHIV-SS is a 11 items scale. The scale consists of items that measure all three HIV stigma mechanisms experienced by ALHIV. The three HIV stigma mechanisms experienced by ALHIV include Internalized stigma (5 items) and Anticipated stigma (2 items), Enacted stigma (3 items). Responses were offered on a 3-point likert scale (0:‘Never’; 1:‘Sometimes’; 2: ‘Most of the time’).

Stigma construct	Indicator	Response		
		Never	Sometimes	Most of the time
Internalised stigma vignette and items: This is Phunziro. Living with HIV is difficult for him sometimes. Some days Phunziro struggles to feel good about himself. Could you say how much these things are true for you? (Chimwemwe for female respondents)	1. I am very careful who I tell that I have HIV.	0	1	2
	2. I worry that people who know I have HIV will tell others.	0	1	2
	3. I feel that I am not as good as other kids because I have HIV.	0	1	2
	4. Having HIV makes me feel unclean/dirty.	0	1	2
	5. Having HIV makes me feel that I’m a bad person.	0	1	2
Anticipated stigma vignette and items: Could you tell us a little bit about what people in your community think about HIV?	6. ‘People in my community think that a person with HIV is disgusting.’	0	1	2
	7. ‘People in my community think that HIV is a punishment from God or from ancestors.’	0	1	2
Enacted stigma vignette and items: Remember Phunziro? He is having a hard time because of his HIV status. Sometimes people treat Phunziro differently from other kids just because he is HIV-positive. This is not fair. Could you say how much these things	8. ‘I have been hurt by how people reacted when they found out I have HIV’	0	1	2
	9. ‘I have stopped spending time with some kids because of their reactions to my HIV status.’	0	1	2
	10. ‘I have lost friends by telling them I have HIV.’	0	1	2

have been true for you? (Chimwemwe for female respondents).	11. 'I've been teased because of my HIV'	0	1	2
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**Child and Adolescent Trauma Screen (CATS) - Youth Report**

Name:

Date: \_\_\_\_

**Stressful or scary events happen to many people. Below is a list of stressful and scary events that sometimes happen. Mark YES if it happened to you. Mark No if it didn't happen to you.**

**SECTION A**

<b>Statement</b>	<u>Yes</u>	<u>No</u>
1. Serious natural disaster like a flood, tornado, hurricane, earthquake or fire.		
2. Serious accident or injury like a car/bike crash, dog bite, sports injury.		
3. Robbed by threat, force or weapon.		
4. Slapped, punched, or beat up in your family.		
5. Slapped, punched, or beat up by someone not in your family.		
6. Seeing someone in your family get slapped, punched or beat up.		
7. Seeing someone in the community get slapped, punched or beat up.		
8. Someone older touching your private parts when they shouldn't.		
9. Someone forcing or pressuring sex, or when you couldn't say no.		
10. Someone close to you dying suddenly or violently.		
11. Attacked, stabbed, shot at or hurt badly.		
12. Seeing someone attacked, stabbed, shot at, hurt badly or killed.		
13. Stressful or scary medical procedure.		
14. Being around war.		
15. Other stressful or scary event?		

**Describe:**

---

**Which one is bothering you the most now?**

---

**If you marked “YES” to any stressful or scary events, then turn the section B and answer the next questions.**

**Mark 0, 1, 2 or 3 for how often the following things have bothered you in the last two weeks: 0 Never / 1 Once in a while / 2 Half the time / 3 Almost always**

**SECTION B**

	<u>Never (0)</u>	<u>Once in a while (1)</u>	<u>Half the time (2)</u>	<u>Almost always (3)</u>
1. Upsetting thoughts or pictures about what happened that pop into your head.				
2. Bad dreams reminding you of what happened.				
3. Feeling as if what happened is happening all over again.				
4. Feeling very upset when you are reminded of what happened.				
5. Strong feelings in your body when you are reminded of what happened (sweating, heart beating fast, upset stomach).				
6. Trying not to think about or talk about what happened. Or to not have feelings about it.				
7. Staying away from people, places, things, or situations that remind you of what happened.				
8. Not being able to remember part of what happened.				
9. Negative thoughts about yourself or others. Thoughts like I won't have a good life, no one can be trusted, the whole world is unsafe.				
10. Blaming yourself for what happened, or blaming someone else when it isn't their fault.				
11. Bad feelings (afraid, angry, guilty, ashamed) a lot of the time.				

12. Not wanting to do things you used to do.				
13. Not feeling close to people.				
14. Not being able to have good or happy feelings.				
15. Feeling mad. Having fits of anger and taking it out on others.				
16. Doing unsafe things.				
17. Being overly careful or on guard (checking to see who is around you).				
18. Being jumpy.				
19. Problems paying attention.				
20. Trouble falling or staying asleep.				

Please mark "YES" or "NO" if the problems you marked interfered with: Total Score\_\_\_\_\_

**Clinical = 15+**

1. Getting along with others	Yes	No	4. Family relationships	Yes	No
2. Hobbies/Fun	Yes	No	5. General happiness	Yes	No
3. School or work	Yes	No			

### Brown (1986) Peer Pressure Inventory

Here are some *PAIRS of STATEMENTS* describing *PEER PRESSURE* which is when your friends encourage you *to do* something or to *not do* something else. For each pair, **READ** both statements and decide whether friends mostly encourage you to do the one on the **LEFT** or the one on the **RIGHT**. Then, **MARK AN "X"** in one of the boxes on the side toward the statement you choose, depending on **HOW MUCH** your friends encourage you to do that ("A Little," "Somewhat" or "A Lot"). If you think there's no pressure from friends to do either statement, mark the middle ("No Pressure") box.

Remember, mark *just ONE "X"* for *each* pair of statements.

<b>HOW STRONG is the pressure from your FRIENDS to: . . . .</b>	<b>LOT</b>	<b>SOME WHAT</b>	<b>LITTLE</b>	<b>NO PRESSURE</b>	<b>LITTLE</b>	<b>SOME WHAT</b>	<b>LOT</b>	<b>Or to: .....</b>
Study hard, do your homework, etc.	3	2	1	S38	-1	-2	-3	NOT study or do homework
Take DIFFERENT classes than your friends take	-3	-2	-1	C23	1	2	3	Take the SAME classes that your friends take
Smoke marijuana	3	2	1	M59	-1	-2	-3	NOT smoke marijuana
Be social, do things with other people	3	2	1	P39	-1	-2	-3	NOT be social, do things by yourself
NOT try to be "tough," stay out of fights, etc.	-3	-2	-1	M42	1	2	3	Try to be "tough," pick fights, etc.

Be part of any “crowd” at school that you want to	-3	-2	-1		1	2	3	Try to get into certain “crowds” and not others
Try to do what your parents want you to do	3	2	1	F52	-1	-2	-3	Go against your parents’ wishes
Have a steady boyfriend or girlfriend (opposite sex)	3	2	1		-1	-2	-3	NOT just go out with one guy or girl
Drink beer or liquor	3	2	1	M65	-1	-2	-3	NOT drink beer or liquor
NOT do many things with your family	-3	-2	-1	F41	1	2	3	DO lots of things with your family
NOT go to school dances or mixers	-3	-2	-1	P21	1	2	3	Go to school dances or Mixers
Be part of one (or more) of the “crowds” at school	3	2	1	C35	-1	-2	-3	NOT be part of any of the “crowds” at school
NOT have a parttime job	-3	-2	-1		1	2	3	Have a parttime Job
Get home by the time your parents say you should be	3	2	1	F47	-1	-2	-3	Stay out past the curfew time your parents set

<b>HOW STRONG is the pressure from your FRIENDS to: . . . .</b>	<b>LOT</b>	<b>SOMEWHAT</b>	<b>LITTLE</b>	<b>NO PRESSURE</b>	<b>LITTLE</b>	<b>SOMEWHAT</b>	<b>LOT</b>	<b>Or to: .....</b>
Excel, be really good at something (sports, grades, slamming beers, whatever)	3	2	1		-1	-2	-3	NOT be better than any of your friends at something
NOT go to parties	-3	-2	-1	P53	1	2	3	Go to parties
Take accelerated (advanced level) classes	3	2	1	S35	-1	-2	-3	NOT take accelerated (advanced level) classes
Try NOT to be friends with the popular kids	-3	-2	-1	C30	1	2	3	Try to be friends with the “popular” kids
Wear the SAME types of	3	2	1	C36	-1	-2	-3	Wear styles of clothes

clothes your friends wear								DIFFERENT than your friends
“Make out” (kissing or petting)	3	2	1		-1	-2	-3	NOT “make out” (kissing or petting)
Smoke cigarettes	3	2	1	M59	-1	-2	-3	NOT smoke cigarettes
Try to look or act older than you are	-3	-2	-1		1	2	3	Try to look or act your own age
Finish high school	3	2	1	S39	-1	-2	-3	Drop out of school
Be in religious activities (church, Young Life, etc.)	3	2	1		-1	-2	-3	NOT get involved with religious activities
Talk or act DIFFERENTLY than your friends do	-3	-2	-1	C41	1	2	3	Talk or act the SAME way your friends do
Spend your free time alone or with your family	-3	-2	-1	P34	1	2	3	Spend your free time with your friends
Get drunk or get “a buzz”	3	2	1	M71	-1	-2	-3	NOT get drunk
NOT shoplift or steal anything	-3	-2	-1	M50	1	2	3	Steal something (shoplift, Raid a locker, etc.)



Not to be TOO much of a "brain"	-3	-2	-1	S32	1	2	3	Be as smart as you can be
Go out with boys/girls (opposite sex)	3	2	1	P52	-1	-2	-3	NOT go out with boys/ girls (opposite sex)
Be liked by teachers	3	2	1	S46	-1	-2	-3	NOT be liked by teachers
Wear your hair (or makeup) DIFFERENT than your friends'	-3	-2	-1	C43	1	2	3	Wear your hair (or makeup) like your friends do
Go out for a sports team	3	2	1		-1	-2	-3	NOT go out for sports
Get beer or liquor before you're 18	3	2	1	M67	-1	-2	-3	NOT get beer or liquor until you're 18
<b>HOW STRONG is the pressure from your FRIENDS to: . . . .</b>	<b>LOT</b>	<b>SOMEWHAT</b>	<b>LITTLE</b>	<b>NO PRESSURE</b>	<b>LITTLE</b>	<b>SOMEWHAT</b>	<b>LOT</b>	<b>Or to: .....</b>
NOT ask your friends who you should go out with	3	2	1	C17	-1	-2	-3	Go out only with someone your friends say is okay to date
Talk back or "smart off" to adults	3	2	1	F53	-1	-2	-3	Show respect for adults

Go to the games at school (football, basketball, etc.)	3	2	1	P26	-1	-2	-3	NOT go to school games
NOT cut classes or skip school	3	2	1	S44	-1	-2	-3	Cut classes or skip school
NOT go to concerts	3	2	1	P31	-1	-2	-3	Go to concerts
Ignore what your parents tell you to do	3	2	1	F62	-1	-2	-3	Do what your parents tell you to do
Have the SAME opinion about things as your friends do	3	2	1	C33	-1	-2	-3	Have DIFFERENT opinions than your friends do
Try to get good grades	3	2	1	S59	-1	-2	-3	NOT try for good grades
NOT “trash” things or vandalize property	3	2	1	M51	-1	-2	-3	“Trash” or vandalize things (write on walls, break windows, etc.)
Try to be thin	3	2	1		-1	-2	-3	Try to be fat
NOT let your parents know where you go, what you do	3	2	1	F50	-1	-2	-3	Tell your parents where you go and what you do
Listen to the music, groups	3	2	1	C36	-1	-2	-3	Listen to music and groups

your friends think are good								that no one else likes
NOT go “all the way” (not have sexual intercourse)	-3	-2	-1	M52	1	2	3	Have sexual intercourse (go “all the way”)
Get along well with your parents	3	2	1	F53	-1	-2	-3	“Hassle” your parents
“Party” (be rowdy)	3	2	1	P47 M52	-1	-2	-3	NOT “party” (not be rowdy)
Go out with friends on Weekends	3	2	1	P61	-1	-2	-3	Stay home on weekends
NOT do any hard drugs	-3	-2	-1	M55	1	2	3	Do hard drugs
Do things to impress members of the opposite sex	3	2	1	P46	-1	-2	-3	Try NOT to impress members of the opposite sex
Give teachers a hard time	3	2	1	S42	-1	-2	-3	Be nice to teachers



## **Appendix 6: Adolescent mental health protocol COVID-19 SOP**

**Date:** 2/2/2022

**Purpose:** This SOP describes procedures to be followed during the research study in selected ART clinics in Blantyre, Malawi.

### **1. Study activities at the selected ART clinics**

The researcher and research assistants will access the ART Clinics where Adolescents living with HIV take ART and attend teen clubs and conduct participant interviews. See below for procedures at the site.

### **COVID-19 Infection Control and Safety:**

We want to make sure everyone follows these guidelines to stay safe from COVID-19 at the office and when contacting their participants. Please follow these guidelines in ART Clinics:

- If you have any symptoms (see **Appendix A of this SOP**), DO NOT seek out any participants, and you should not come to work (please inform the researcher).
- Wear a mask at ALL times when with other researchers or study participants.
- Make sure the participant has a mask on before you start chatting.
- Do not shake hands/touch/hug.
- Stay 1.5 metres apart at all times.
- Sanitizer must be on your person at all times at study site.
- Sanitize your hands immediately after the visit.

### **Other important information:**

- All researchers must ensure they dispose of the used or soiled PPE appropriately.
- Ensure that researchers understand the importance of hand washing, sanitizing/ disinfecting surfaces and equipment.
- Researchers must monitor their allocated PPE stock on a weekly basis.
- Requests for the appropriate PPE and sanitising/ hand washing consumables required at the site should be communicated with Principal researcher, who will provide the necessities of such requests.



**Please follow these guidelines at the Clinic sites:**

- Complete the screener daily (see **Appendix B of this SOP**).
- Immediately upon entering the study site please wash your hands following proper hand washing guidelines (see **Figure 1** below).
- Please wear masks while at the site.
- Wash your hands or use hand sanitizer every hour while at the study site.
- Only use offices with windows. Windows must be opened to allow for adequate natural ventilation.



**Figure 1: Hand Hygiene**



Researchers must be extremely cautious about infection control to protect themselves and their fellow team members. See Figure 2. Coronavirus prevention toolbox for an overview.

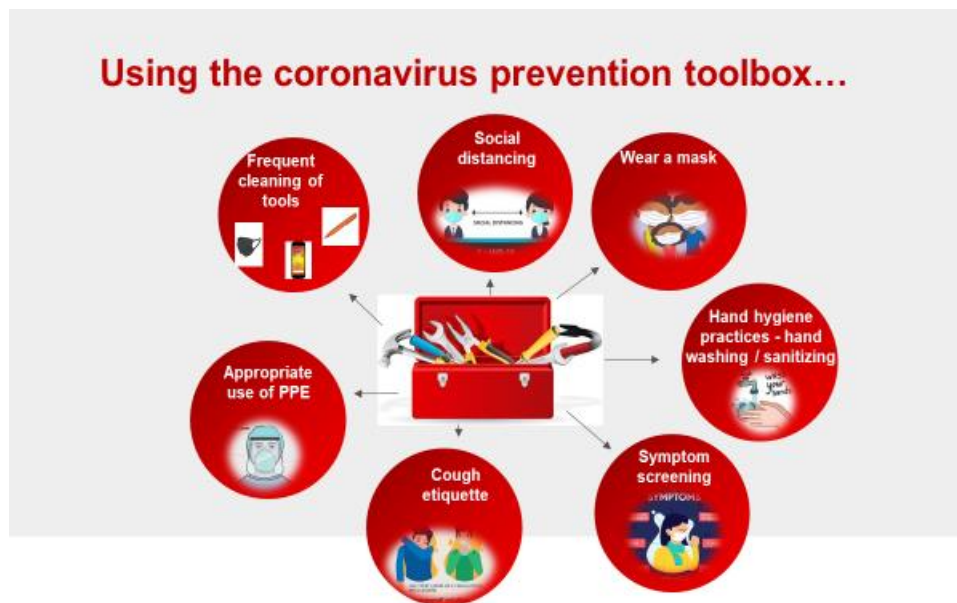


Figure 2: Coronavirus prevention toolbox



### **A: Possible COVID-19 Symptoms**

**If you have any of the symptoms below DO NOT make contact with any participants, and do not come to work (please inform Principal Researcher ASAP).**

*Symptoms may appear 2-14 days after exposure to the virus. People with these symptoms may have COVID-19:*

- ❖ Fever or chills
- ❖ Cough
- ❖ Shortness of breath or difficulty breathing
- ❖ Fatigue
- ❖ Muscle or body aches
- ❖ Headache
- ❖ New loss of taste or smell
- ❖ Sore throat
- ❖ Congestion or runny nose
- ❖ Nausea or vomiting
- ❖ Diarrhoea



**COVID-19 Assessment Centres**

Testing site	Address	Contact details
Queens Elizabeth central hospital, Malawi	Ginnery, chichiri, Blantyre. 24 hours	There no specific contact number, once you go to the outpatient department you will be helped accordingly.





**B: Staff Symptom Screener**

Before any staff member/researcher can enter the workplace the following questions needs to be answered and if any symptoms has been noted, please contact Principal researcher immediately and do not return to work before seeking advice from a medical professional asap.

Period .....

Name: .....

Symptoms Mark	Mark symptom with either a Y (yes) or N (no)						
	Monday	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday
Fever							
Cough							
Sore throat							
Redness of the eyes							
Shortness of breath							
<b>Did you have any of the following illnesses the last few days</b>							
Body aches							
Loss of smell or taste							
Nausea							
Vomiting							
Diarrhea							
Fatigue							
Weakness							
Tiredness							
<b>Measured Body Temperature</b>							



### Protocol timelines

<b>1. Getting approval in Malawi</b>	By the end of March, 2022
<b>2. Start of recruitment</b>	By the end of April, 2022
<b>3. End of data collection</b>	By the end of May, 2022
<b>4. Analysis and write up</b>	By the end of September, 2022
<b>5. Thesis submission</b>	By the end of October, 2022.



### Appendix 7: Study budget

<b>PROTOCOL TITTLE:</b> Prevalence and predictors of alcohol use among HIV-positive Malawian adolescents attending selected Anti-Retroviral Treatment clinics in Blantyre, Malawi.		
<b>During of project: 8 Months (March to October 2022)</b>		
<b>Nature of expenditure</b>	<b>Quantity/cost per item</b>	<b>Total Amount in Rands</b>
1. Refreshments, Transport reimbursement and Gift packs	375 participants at SAR25 per participant	SAR 9,375.00
2. Research assistants training	2 * SAR 250	SAR 500.00
3. Refreshments during the research assistant training	SAR 125	SAR 125.00
<b>GRAND TOTAL</b>		<b>SAR 10.000.00</b>