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FACTORS CONTRIBUTING TO THE UPSURGE IN SEXUALLY TRANSMITTED INFECTIONS IN YOUNG ADULTS BETWEEN THE AGE OF 20-24 YEARS AT ARCADIA CLINIC IN HARARE, ZIMBABWE

BY

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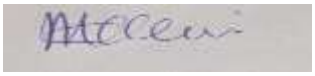
Abstract

The study explored the factors contributing to the occurrence in sexually transmitted infections among young people. The aim of the study was to establish factors contributing to the occurrence and upsurge in sexually transmitted infections among young people from 20-24 years at Arcadia clinic in Harare, Zimbabwe during the period of January 2019 to September 2021 and to provide recommendations on STI management, prevention and control strategies. The study employed a case control study design, a type of observational study where participants are selected based on their outcome status and are compared on the basis of supposed causal attributes, thus some participants will have the outcome of interest (cases) while some will not have the outcome of interest. A total of 169 respondents participated in the study using self- administered semi-structured questionnaires for data collection. The social ecological model theory and the health belief model were used to explore the various factors that contributed to the occurrence in STIs among young people. The social ecological factors that were considered for data collection were individual, interpersonal, community and organizational factors. After controlling for confounding variables in logistics regression, factors including engaging in unprotected sexual intercourse, alcohol drinking, watching pornography and hanging around in bars and night clubs were found to be the risk factors strongly associated with the occurrence and upsurge in STIs among young people. The prevalence rate was found to be higher in women as compared to men due biologic and socio- economic factors that make women susceptible. Analysis of the data indicated that at least one of the social- ecological model factor is a risk factor contributing to the occurrence of STIs in both young men and women. Providing education on STIs was found to be one of the major recommendation in controlling the spread of STIs.

Declaration

I declare that this dissertation is my original work except where sources have been cited and acknowledged. The work has never been submitted nor will it be submitted to another university for the award of a degree.

Christine Makoni  04/02/22

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List of Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
CBD	Central Business District
CDC	Centre for Disease Control
GUD	Genital Ulcer Disease
NAC	National AIDS Council
HIV	Human Immune Virus
HPV	Human Papilloma Virus
HSV	Herpes Simplex Virus
MOHCC	Ministry of Health and Child Care
PICT	Provider Initiated Counselling and Testing
SDG	Sustainable Development Goals
STI	Sexually Transmitted Infections
UDS	Urethral Discharge Syndrome
UN	United Nations
UNICEF	United Nations International Children's Fund
VDS	Vaginal Discharge Syndrome
WHO	World Health Organization
ZDHS	Zimbabwe Demographic Health Survey

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CHAPTER 1: INTRODUCTION

1.0 Introduction

According to the World Health Organization [WHO] (2019), sexually transmitted infections (STIs) are those diseases that are contracted mainly through unprotected sexual contact such as vaginal, anal and oral sex from an infected person. Some STIs can be transmitted from mother to child during pregnancy and delivery; others can also be transmitted through non-sexual means such as transfusion of infected blood or blood products, use of unsterilized drug needles and sharing unsterilized tattooing instruments.

There are more than 30 different pathogens that cause STIs and these are mainly caused by bacteria, viruses and parasites. STIs caused by bacteria and parasites are curable, whereas those caused by viruses are not curable although symptoms decline through symptomatic treatment. STI symptoms vary depending with the type of infection. There are many forms of STIs but there are some that are common in almost every part of the world and these include Chlamydia, gonorrhoea, syphilis and human papilloma virus (HPV) and trichomoniasis (WHO, 2016).

Most STIs are present without symptoms and a person can spread the infection unknowingly leading to increased transmissions. Some symptoms clear on their own within a short period of time but some require rapid and effective treatment. The absence of symptoms may also delay implementation of treatment interventions leading to complications which may be fatal (Ginidza et al, 2017).

Most STIs are curable with antibiotics and accurate diagnoses require laboratory tests where resources are available so that proper treatment is given. If resources for laboratory testing are not available, syndromic approach using flow charts is used in STI management (WHO, 2018).

If not properly diagnosed or treated, STIs are usually associated with a number of complications, for example untreated gonorrhoea and Chlamydia may lead to infertility and inflammatory urethral strictures causing urinary retention and chronic renal failure in males, whereas in females it leads to pelvic inflammatory diseases, infertility, cervical cancer, prenatal and neonatal morbidities jeopardizing women's reproductive competencies (Amu &Adegun, 2015).

People who contract STIs such as HPV, genital herpes and syphilis have increased risk of HIV acquisition and transmission by two to eight folds due to inflammation of the genital tract thereby increasing viral shedding of HIV in the genital tract facilitating the transmission of HIV to the sexual partner (Ginidza et al, 2017).

STIs are spread predominantly by sexual contact including vaginal, anal or oral sex. There are various factors which contribute to the spread of STIs and these include gender and age disparities, socio-economic factors such as poverty and marginalization, substance abuse, inconsistent condom use and risky sexual networks where concurrent sexual partners exist (Ginidza et al 2019).

1.2 Background

Sexually transmitted infections (STIs) remain a significant public health burden mainly in low-income countries including Zimbabwe. The World Health Organization (2016) has estimated that 376 million cases are of STIs are reported annually globally, and more than 1 million cases are recorded per day among sexually active men and women, and almost half of the cases occur among young people between the ages of 15 –24 years with the largest proportion in the region of south and south-east Asia and sub Saharan Africa.

In the United States of America (USA), the Centre for Disease Control [CDC], (2019) estimated that 110 million cases of STIs are reported annually, and the cost of treating them

is estimated at 16 billion dollars annually. If undiagnosed or not properly treated, STIs have been found to cause infertility on at least 24 000 women annually in the USA.

In Sub-Saharan Africa, an estimated 89 million new cases are recorded annually with the majority occurring among 15-49 years age groups. There are no current studies done in Southern Africa to investigate the predisposing factors to contraction of STIs other than HIV. This may be due to that many studies have been focusing more on HIV alone, (Tapera et al, 2019).

According the National Aids Council (2016), 261 032 new STI cases were recorded in Zimbabwe, with Harare Province contributing significantly accounting for 53 894 new STI cases.

The WHO periodically generates estimates to gauge the global burden of the most common curable STIs such as Chlamydia, gonorrhoea, trichomoniasis and syphilis. These estimates will provide evidence for programme monitoring, evaluation and improvement (Rowley et al, 2016).

Sexually transmitted infections are of significant public health concern because their consequences have a bearing on the reproductive health of an individual. They are among the most communicable diseases that have an effect in the health and lives of people globally and they constitute a huge health and economic burden especially in developing countries where they account for 75-85% of new cases globally and 17% of economic losses caused by ill-health. STIs are prevalent in both high and low-income communities and are ranked among the top five diseases in developing countries and their complications are ranked in the top five conditions in which people seek treatment for (WHO, 2016).

Although STIs affect all age groups, adolescents and young people between the age of 15-24 years are particularly a more vulnerable group. Global data on STIs in young people indicates that one in every 20-young people contracts a curable STI daily and of the estimated

global 376 million new cases, at least one third occur in young people below the age of 25 and one in four new HIV infections occur among young adults, (WHO, 2016).

In the United States, STI prevalence rates are high among adolescents and young adults. CDC, (2021) estimated that young people between 15 -24 years account for almost half of the 26 million new cases that occurred in the United States in 2018.

The Inter-Censal Demographic Survey (ICDS) of 2017 indicates that young people between the age of 20-24 constitute10, 5% of the Zimbabwean population (15 181 631) with 808 445 females and 792 255 males (UNFPA, 2021).

A national prevalence of 20% was recorded on STIs among young people between the ages of 20-24 years (ZIMSTATS, 2016). The study did not provide data to ascertain the prevalence of STIs in young people in Harare city council clinics.

Although HIV itself is an STI, collaborative efforts to prevent and reduce its transmission have led to a substantial decline in HIV incidences in many countries, but available STI programmes have not been effective in controlling STI prevalence with young people particularly at a higher risk, (Martin et al, 2021).

In Zimbabwe, the local clinic is the first port of call for managing and treating STIs. Young people are vulnerable because they have limited access to sexual reproductive information and are sometimes face stigma hindering them to seek reproductive health services early. Poor reproductive health among them threatens their future health and the economic wellbeing of the country, (Muchabaiwa & Mbonigaba, 2019).

Given the health complications that are associated with STIs such as ectopic pregnancies, infertility and increased risk of HIV transmission or acquisition among others, it is crucial to address the reproductive needs of young people to reduce STI related morbidities and mortalities. Preventing and treating STIs is a crucial part towards reducing incidences of HIV/AIDS because STIs facilitate the sexual transmission of HIV, particularly those that

cause development of ulcers such as syphilis, chancroid and genital herpes, (Amu & Adegun, 2019).

1.2 Statement of the problem

STIs are ranked among the top five conditions in which people seek treatment for at Arcadia clinic. Despite intense condom distribution and advocacy for behaviour change by different stakeholders in the fight to reduce STIs including HIV/AIDS in and around the community, the upsurge of STIs in young people at Arcadia clinic from January to September 2021 was worrisome and this called for the need to establish the factors contributing to the upsurge so as to help in designing and developing appropriate interventions for diagnosis, management and prevention of these STIs. From January to September 2021, the clinic recorded a 57% increase in STIs among young people between the age of 20-24 years as compared to 24% recorded in 2020 during the same period (Arcadia clinic T5 quarterly reports, 2019-2021). Table1 and Figure 1 below shows the distribution of new STI cases at Arcadia Clinic from January 2019 to September 2021.

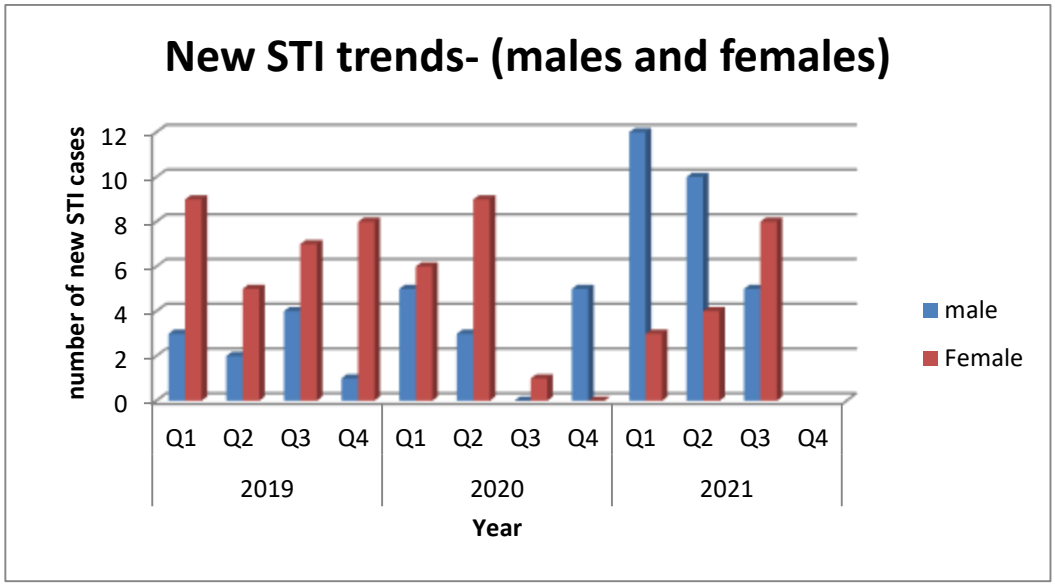
Table 1: New STI cases (20-24years) recorded at Arcadia clinic from January 2019 to September 2021

Year		male	Female
2019	Q1	3	9
	Q2	2	5
	Q3	4	7
	Q4	1	8
2020	Q1	5	6
	Q2	3	9
	Q3	0	1
	Q4	5	0
2021	Q1	12	3
	Q2	10	4
	Q3	5	8
	Q4		

Q- Quarter

Source: Arcadia clinic T5 Quarterly Reports

Figure 1: Sex aggregated STI trends (20-24 years) at Arcadia clinic (January 2019-September 2021)



Source: Arcadia clinic T5 Quarterly Reports

The figure above shows trends of new STI cases recorded at Arcadia clinic from January 2019 to September 2021 for 20-24 age groups. The graph for males shows a spiking trend in STI reporting at the clinic. There was an insignificant rise and decrease in STIs from the 1st quarter (Q1) of 2019 to the 2nd quarter (Q2) of 2020. There were no new cases recorded in the 3rd quarter (Q3) of 2020 but a sharp increase was noted from the 4th quarter (Q4) of 2020 to the 1st quarter (Q1) of 2021. A slight decrease was recorded in the 2nd quarter (Q2) of 2021 with a further sharp decline into the 3rd quarter (Q3). Although there was a decline in the trend on how the STI cases were occurring, the number of new cases being recorded increased in 2021 compared to previous years

The graph for females shows a rise and spiking trend in STI cases from the 1st to 3rd quarter of 2019 and slightly increasing into the 4th quarter of 2019. A slight decline was seen in the 1st quarter of 2020 followed by a sharp rise into the 2nd quarter (Q2) of 2020. There were no new cases recorded in the 4th quarter of 2020 and a marked increase was seen from the 1st to

the 3rd quarter of 2021. From the 1st to the 3rd quarter of 2021 there was an increase in new STI cases in both males and females.

From 2019 to the 3rd quarter (Q3) of 2021new STI cases continued to rise among males than females but high incidences continued to occur. From this analysis it was clear that the numbers of new STI cases were increasing at Arcadia clinic, and the factors contributing to the upsurge was not known. This prompted an investigation to establish the factors contributing to the upsurge.

1.3 Significance of the study

Since the emergency of HIV/AIDS, STIs control efforts have been defined in relation to HIV control strategies. As new HIV cases continue to decline, incidences of STI cases were on the rise among young people who seek treatment services at Arcadia clinic and this have a negative impact in achieving the global targets of having an HIV free generation by 2030, (UNAIDS, 2020).

The study findings provided an insight into the risky behaviours that young people engage in, which contributes to increased STIs rates, and stablishing these factors will help in developing control strategies that will help in reducing STI related morbidity and mortality. New HIV infections will also be reduced towards ending AIDS as a public health threat by 2030 (WHO, 2019).

Prevention and control of STIs is an integral part of sexual and reproductive health goals towards attainment of the 2030 Agenda for Sustainable Development Goal (SDG) number 3 for promotion good health and wellbeing (United Nations, 2015). Understanding the determinants of STIs is a necessary prerequisite in formulating interventions that promote healthy sexual behaviours.

The population of 20- 24 years is the future generation of the country, promoting healthy sexual behaviours among them will strengthen community capacity, increase a healthy workforce and improve the health of the people.

Since STIs are both a health and an economic burden, a holistic approach is crucial in addressing them so as to prevent complications which may later require large sums of money to treat and manage. Thus, the government and health care providers will benefit from cost savings and the money will be reinvested in other health programs to improve the livelihoods of the general population.

The study findings will also add to the board of literature to the Ministry of Health and Child Care (MOHCC) and other stakeholders, and such information will contribute to the formulation of policies that will help to widen STI prevention and control strategies.

1.4 Research Objectives

1.4.1. Broad Objective

To establish factors that contributed to the upsurge in sexually transmitted infections among young people between the ages of 20-24 years at Arcadia Clinic in Harare for the period January to September 2021.

1.4.2 Specific objectives

(i). To establish the common behaviours and other factors that contributed to the upsurge in STIs among young people between 20-24 years at Arcadia clinic from January to September 2021.

(ii). To assess the level of knowledge that young people have about STIs at Arcadia clinic from January to September 2021.

(iii). To provide recommendations on STI management, prevention and control.

1.5 Research questions

(i). What were the factors that led to the upsurge in STIs among young people at Arcadia clinic from January to September 2021?

(ii). Did young people between 20-24 years who seek STI services at Arcadia clinic for the period of January to September 2021 have knowledge about the signs and symptoms of STIs?

(iii). What should be done to control the scourge of STIs among young people Arcadia clinic?

1.6 Limitations of the study

(i). No research studies were done at the facility to ascertain factors that contributed to STIs among young people between 20-24 years in the past years.

(ii). Data collection exercise was affected by the industrial action when nursing staff embarked on an industrial action which resulted in the clinic being closed from 13 July 2020 to 24 November 2020 resulting in some patients failing to access health services at the clinic affecting the number of STI clients reported.

(iii). The COVID-19 lockdown restrictions also affected the movement of people resulting in some clients failing to access health services at the clinic, thus also affecting the number of STI clients reported.

(iv). Limited resources to collect and send specimens to the laboratory to confirm the actual diagnoses of the STIs being presented. Only syndromic approach was used for management of STIs at the clinic.

(v). Provider Initiated HIV counselling and testing (PICT) is offered on every patient who presents with an STI as recommended by the MOHCC guidelines, which can be a limitation in accessing medical treatment.

1.7 Study Delimitations

The study focused on establishing factors which contributed to the upsurge in STIs among men and women between 20-24 years by conducting interviews and use structured

questionnaire. The study was conducted at Arcadia clinic, one of the city of Harare clinics in the provision of primary health care services.

Summary

Sexually transmitted infections present in various forms which are curable and non-curable. They remain both a public health and an economic burden in the country and beyond. Combined efforts are required to ascertain the contributory factors to their occurrence so as to control and prevent further transmission.

CHAPTER 2: LITERATURE REVIEW

2.0: Introduction

Sexually transmitted infections (STIs) are curable diseases and are ranked among the top five conditions in which adults seek health care services for. While STIs affect individuals of all ages, they can take a heavy toll on young people impacting their reproductive health (CDC, 2020). Francis (2018), estimated that by 2040 the number of young people in Africa is projected to increase by 60% to 466 million hence it is important to provide health interventions targeting this population for current and future adult health for the next generation.

Although young people between 15-24 years represent a small proportion of the global total population, they account for half of all total new STI cases that are being reported globally (CDC, 2020). Most reported STIs are transmitted during unprotected sexual intercourse with an infected partner and this calls for actions to establish some of the contributory factors so as to prevent further transmission of incurable STIs including HIV which is also a public health concern (WHO, 2016).

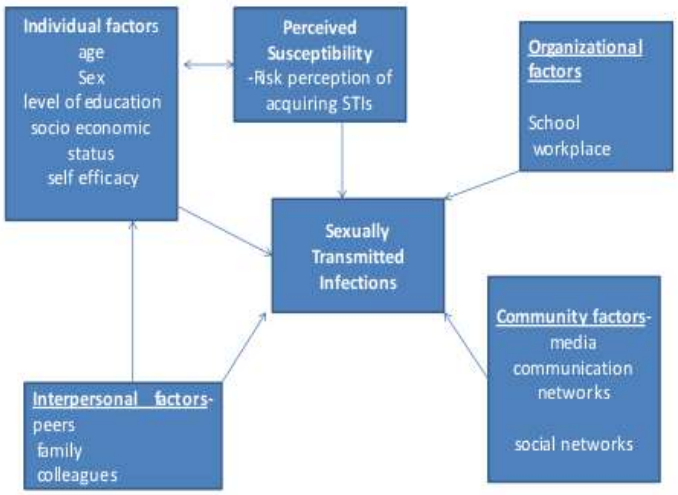
UNFPA, (2021) states that young people (15-24 years) constitute only 25% of the sexually active population in the United States, and of the estimated 26 million new STI cases that were reported in 2018, half of them occurred in adolescents and young adults between 15- 24 years. The most reported STIs which young people seek treatment services for globally include Chlamydia, gonorrhoea and syphilis (Keller, 2020).

Several factors have been found to contribute to the occurrence of STIs among young people and these are classified as individual, interpersonal, community, organizational and public policy factors which will be described below (Muzondiona, Koro, Sinandima, Chiro & Muyengwa, 2016).

Figure 2: Conceptual framework: Social Ecological Model (SEM

There are five levels of influence on people's behaviour in the SEM which are individual, interpersonal, organizational, community and public policy factors. These factors are inter-related to each other and promote or restrict young people's reproductive health behaviours (Stefan, Logie, Grosso, Wirtz & Beyrer, 2013). SEM adopted to understand factors influencing the occurrence of STIs among young people as shown on Figure 2 below.

Figure 2: The Social- Ecological Model(SEM), McLeroy, 1988



The conceptual framework above integrates constructs of the Health Belief and Socio-ecological Models. The ecological framework is gaining increased recognition in the field of health promotion and is being applied to many health-related researches. The SEM can also be used to guide program development for example in evaluating how well community-based interventions are helping preventing health related risky behaviours (Stefan et al, 2013). Using some of the constructs of the Social-ecological model in this study will helped to determine the associations which exist between STIs and related factors.

i. Individual level factors- include age sex, beliefs, values, level of education, socio economic status

ii. Community level factors -where the individual operates in including media, communication networks, social networks, professional networks, community attitudes and the relationships among different institutions within communities

iii. Interpersonal level factors- interpersonal relationships between individuals such as peer pressure, family issues

iv. Organizational level factors- covers the way relevant institutions are organized and managed such as availability of SRH services, accessibility of health information services and their operations schools, workplaces among others.

The Socio-ecological model is a flexible model for guiding epidemiologic studies among key populations at risk of contracting STIs including HIV in diverse socio-cultural context. Epidemiologic studies have traditionally been focusing on describing individual- level risk factors but successful STI prevention strategies require effective integration of evidence-based bio-medical, behavioural and structural interventions characterizing multiple levels of STI risks.

2.1 Individual factors

Individual factors are biologic or behavioural characteristics associated with vulnerability to acquire or transmit infection or a disease (Stefan et al, 2013). Both young men and women are at greater risk of contracting STIs but young women suffer more frequent and serious long- term health consequences and STI complications than men, for example a pregnant woman is highly likely to pass syphilis to her unborn baby if left untreated (CDC, 2020). Bosely (2019) also added that syphilis alone causes more than 200 000 new-born deaths and still births each year globally.

Several studies have shown that women in Zimbabwe and beyond are at greater risk of contracting STIs due to several factors including their biological make up, social and economic factors. Women generally have low status compared to men and they lack

confidence and power to defend for their reproductive rights. Social and economic dependency on men may limit a woman's ability to refuse unsafe sex or to negotiate for safer sex methods such as use of condoms, obtain information and receive health care (Muzondiona et al, 2016).

Nankinga, Misinde & Kwagala (2016) cited that the biological characteristics of women's anatomy expose them at risk of contracting STIs. This is due to a condition known as cervical ectopy, meaning that the cells that line the inside of the cervical canal extends onto the outer surface of the cervix, and these cells are more vulnerable to infections such as Chlamydia and gonorrhoea, and the risk of acquiring other STIs such as trichomomiasis and HPV is greater at young age if exposed to an STI. Gannon-Loew & Holland Hall (2020) added that STIs that cause development of ulcers such as HSV have also been found to increase the risk of HIV acquisition/ transmission.

A study done to understand the prevalence of sexually transmitted infections among young people in sub-Saharan Africa indicated a high prevalence in STIs except for herpes simplex virus (HSV-2) among young women between 15-24 years for all STIs under the study (Chlamydia, gonorrhoea, bacterial vaginosis, trichomoniasis and syphilis (Torrone et al, 2018).

The asymptomatic nature of some STIs has been found to be a risk factor in spreading infections among young people as most STIs do not show any signs or symptoms and some may produce mild symptoms which may go unnoticed and many infected persons may not think of seeking medical care and one can still spread STIs even without showing any symptoms until they get tested (Jenkins, 2010). For example, women are less likely to have symptoms of common STIs such as Chlamydia and gonorrhoea than men, if symptoms occur they can resolve but infection may still remain (Ginidza et al, 2015). Chlamydia is one of the most common STI which occur in women below the age of 25 years and most women do not

experience any symptoms such as abnormal vaginal discharge or they can confuse the discharge with a yeast infection. If left untreated, Chlamydia can lead to pelvic inflammatory diseases (PID), ectopic pregnancies or infertility among others in women (Cackovic, 2019). In the United States, 24 000 women become infertile yearly as a result of undiagnosed STIs. Women below the age of 25 years, pregnant women and newly engaged sexual partners are annually screened for presence of any STIs and treatment is initiated early if there are any signs and symptoms thus reducing the spread asymptomatic STIs (CDC, 2020).

A study to investigate the "uptake of testing for and prevalence of Chlamydia and gonorrhoea among youths between 16-24 years in community-based settings done in Harare, Zimbabwe from June 2019 to January 2020 and also to explore the facilitators and barriers to testing", indicated a high prevalence of Chlamydia or gonorrhoea or both among young people but only a minority were symptomatic. This means therefore that most STIs would remain untreated if there are no obvious signs and symptoms and if there is no access to STI testing (Martin et al, 2021).

Early sexual debut remains a crucial factor exposing young adults to contracting STIs. They are vulnerable because they engage in unprotected sexual activities early because of sexual exploration, peer pressure, and economic insecurities among others (Tapera et al, 2019). The Zimbabwe Demographic and Health Survey (ZDHS) report of 2015 indicated that young people start to engage in sexual activities as early from 15-19 years and women begin child bearing and having little information about reproductive health issues such as negotiating for safer sex practices puts them at higher risk of contracting diseases including STIs, (ZIMSTATS, 2016).

A mixed methods study done in Zimbabwe between 2019- 2020 on the "Uptake of and factors associated with testing for STIs in community-based settings among youths in Zimbabwe", for testing for Chlamydia and gonorrhoea from total of 1478 participants with

1501 samples for testing indicated that 16.5% (248) of the participants tested positive for either Chlamydia or gonorrhoea or both. The findings indicated a high prevalence on STIs among young people (Martin et al, 2019).

2.2 Interpersonal factors

Sexual networks which are groups of people that are considered as having 'links' in sequential or concurrent sexual partners exposes young people to the risk of contracting STIs, a person may have only one sexual partner but if that partner is a member of a risky sexual network, then that person is at a higher risk of contracting STIs than a similar individual from a lower risk sexual network (Healthy People, 2020).

Ramjee and Daniels, (2013) stated that young people particularly women are at greater risk due to poverty caused economic challenges especially in developing countries where they engage in unprotected sexual activities with multiple partners in exchange for money (sex-work). There is also a correlation between alcohol abuse and STIs among youths, intoxication lowers inhibition and negatively affects decision making, leading to engaging in risky and ultimately damaging behaviours such as having multiple sexual partners and incorrect use of condoms. Young adults particularly college students are the most susceptible because of their drinking patterns for example during weekends and holidays, they often go out with peers and drink excessively, use poor judgement and poor decision making together with their peers and end up engaging in risky sexual behaviours exposing themselves to contraction and spreading of STI (Bittar, 2021).

Alcohol use is common in Africa and has been implicated as a potentially important risk factor for HIV and STIs. Several African studies have shown that the frequency and pattern of alcohol use are associated with STI prevalent. A study done on association between alcohol use and STIs among Kenyan women who engages in transactional sex indicates that alcohol use has two-fold increased risk of STI acquisition (Wilson et al, 2015). American

Addiction Centres Editorial Staff, (2019) also concurred that the use of alcohol and recreational drugs play a major role in the spread of STIs. Alcohol and drug abuse was also prevalent among adult girls and young women (AGYW) involved in sex work due to the nature of their work.

The use of illicit drugs also introduces young people into high risky sexual networks increasing STI transmission. More often when they are high on these drugs they may not able to notice the signs and symptoms due to misjudgement and may delay seeking treatment. Many studies have established that there is an association between substance abuse and inconsistency in condom use, having multiple-concurrent sexual partners and occurrence of STIs, substance abuse often alters one's behaviour leading to loss self- control and engage in risky sexual behaviours (Crick, 2014).

A study done on the general review of Zimbabwe's response to drug and substance abuse among the youths indicated that young people in Zimbabwe have been identified as the most vulnerable group of the population, especially those from poor and unstable backgrounds who view the use of illicit drugs as an escape from life's troubles caused by unemployment leading to engaging in risky sexual behaviours exposing themselves to STI and HIV (Maraire, Chethiyar & Jasni, 2020).

Age disparities have been found to contribute to the occurrence of STIs (Bosely 2019). Young people particularly young females engage in sexual relationships with older men than themselves for financial and material benefits. This can lead to power imbalances in relationships where the woman has no power to negotiate for safer sex methods including condom use increasing their risk of contracting STIs including HIV/AIDS (Ramez, Woog & Mhloyi, 2014). Despite the consequences of engaging in such relationships, some family members condone them because they will be benefiting from the material and financial proceeds of such relationships (Muzondiona et al, 2016).

Age disparity in sexual relationships between young women and older men (commonly referred to as sugar daddies) are common in many parts of the world with high levels occurring in east and southern Africa and west and central Africa. These relationships are mostly transactional in nature and are motivated by the assumption that sex will be exchanged for monetary benefits. A study done on age disparity sex and HIV risks for young women in sub-Saharan Africa indicated transactional sex is one of the key factors in women's heightened vulnerability to STIs and HIV because transactional relationships are likely to involve high risk sex and low condom use (Avert, 2020).

Having multiple sexual partnerships (MSPs) and having unprotected sex have been found to be the most contributory factor in the occurrence of STIs including HIV among young people. MSP refers to overlap of sexual partners within a given time and it is considered as the root cause of the generalized epidemic of STIs including HIV in sub-Saharan Africa as it exposes sexual partners in sexual networks to HIV and other STIs (Alawonde, Ogunwemimo, Bolorunduro & Awoleye, 2021).

The Zimbabwe Population-based HIV Impact Assessment (ZIMPHIA) of 2019-2020 survey reported a high HIV prevalence of 31 000 new HIV infections among people above the age of 15 years where unprotected heterosexual sex continues to be the main transmission route. This exposes young people at higher risk of contracting both HIV and STIs because HIV and STIs are linked to similar risky behaviours, (United Nations HIV/AIDS Programme [UNAIDS], 2020).

With young people particularly, men having a tendency of having more than one sexual partner and engaging in unprotected sexual intercourse and have multiple, trans-generational and transactional sexual partners, they have higher chances of contracting and spreading STIs including HIV within their circles (Amu & Adegun, 2015).

Alawonde et al (2021) further outlined that MSP is a common practice among young people in many parts of the world and a multi -country analysis of risky sexual behaviours among male young adults in some developing countries indicated that the proportion of high risk sexual practices including MSP is 90%.

Muchazondiona et al (2016) also added that sexual exploration, seeking sexual pleasure, peer pressure and acquisition of status as a product of being sexually desirable are some of the reasons why young people engage in multiple sexual relationships. A study conducted in Malawi on "Associated risks factors of STISs and multiple sexual relationships among youths between 20-24 years", indicated that 69% of the males had multiple sexual partnerships while 35,4% of the females were also in such partnerships. Both males and females have reported having multiple sexual partners but such behaviour is significant among males (Chialepeh, 2015).

Improper or inconsistent condom use exposes young people at risk of contracting STIs. A study done in Gaborone, Botswana on "Factors contributing to the upsurge of STIs" indicated that there are several reasons why young people do not use condoms consistently and these include attitudes and beliefs, lack of knowledge, societal and community beliefs. Gender and age disparities also have an impact on condom use where females have a negative attitude towards condoms use because they feel condom use in a relationships signify lack of trust towards one's partner. Condom use has also been found to be very low among young men because they feel condoms reduce the quality of sex (Tapera et al, 2019). Condom use among young people is considered low in sub-Saharan Africa and this has been found to be a contributory factor for high prevalence of STIs, HIV and unintended pregnancies, (Aventin, Gordon & Laurenz, 2021).

The ZDHS of 2015 indicated that although young people have the comprehensive knowledge that correct and consistent condom use and having one sexual partner reduces the chances of

HIV and STI transmission, they are ignorant and lack confidence in using the condoms (UNFPA, 2021).

CDC (2020) emphasized that condoms must be correct and consistent in order to achieve maximum protection. Laboratory studies done in the U.S indicated that latex condoms provide an effective barrier against even the smallest STI pathogen. Studies conducted in the U.S to compare the rates of STIs between condom users and non-users demonstrated that consistent condom use is highly effective in preventing transmission of STIs including HIV.

2.3 Community factors

Most societies in Sub- Saharan countries accord women subordinate status and this affect their ability to negotiate for safer sex, making them susceptible to STIs (Muzondiona et al, 2016). Mugweni, Omar & Pearson (2015) concurred that young women are at risk of contracting STIs and do not have the will power to openly talk about sex related issues in sexual relationships due to various reasons which include lack of sexual decision-making power, economic dependence, low self-efficacy and fear of actual or perceived consequences of discussing such issues for example fear of being labelled as loose, not listened to, fear of rejection or fear of physical, sexual or emotional abuse. In most marriage settings, women are regarded as inferior because the men pay a bride prize for them and they are not allowed to talk or make any suggestions on sex related matters and being quite is regarded as a sign of respect to the husband. This consequently have an effect on instances where the woman would want to negotiate for safer sex methods such as asking for use of condoms to protect themselves from contracting STIs.

Mugweni et al (2015), cited that partners in marriage relationship are not confident to openly discuss on issues that affect their sex life to find ways to improve them but would rather opt for extra-marital relationships particularly men; this exposes them and their partner at risk of contracting STIs. Being voiceless emanates from lack of sexual decision -making powers,

economic dependence on men, low self-efficacy or fear of actual or perceived consequences of negotiating for safer sex methods including condom use. A study done to understand the barriers to safer sex practices in Zimbabwean marriages indicated that women mostly face barriers at all levels to discuss sex related matters (Mugweni et al, 2015).

A study done in Ethiopia on perceived risks of re-infection among individuals treated for STIs indicated that even if young people get treated for STIs, young women particularly are more likely to be re-infected because they lack confidence in defending their reproductive rights. Partner notification and treatment has also been found to be a challenge particularly with males who do not disclose to their partners. This puts them at risk of developing recurrent STIs and long-term complications such as cervical cancer for women and chronic urinary tract infection in males (Tsandik, Berhane, Worku &Terefe, 2017).

Another study done on partner notification and treatment outcomes among South African adolescents and young adults diagnosed with sexually transmitted infections via laboratory-based screening indicated that partner notification is very low among males than females. Those who received treatment were advised to notify their partners but very few participants' partners turned up for treatment. The participants cited stigma, dissolution of relationships and partner reactions as some of the challenges hindering partner notification. Understanding these barriers to notification is crucial in improving STI partner care (Chitneni, 2020).

Zimbabwean social mores strongly condemn pre-marital sex and sex outside marriage, this makes young people hesitant to talk openly about sexuality and other reproductive health problems with their parents or health care providers because of fear of being labelled as having loose morals. Discussing sex matters is considered taboo in the Zimbabwean culture until one is formally married (Remez et al, 2014). Keeping sexuality matters secret is also a risk factor that exposes young people in contracting and spreading STIs because some may

not have any form of income to seek medical help, thus they risk developing STI related complications and continue to spread the infection (Bosely, 2019).

2.4 Organizational factors

Mhaka (2019) cited that lack of knowledge on Sexual Reproductive Health and Rights (SRHR) and Comprehensive Sexuality Education are the primary causes of indulgence in high risk sexual activities by young people in Zimbabwe. Zimbabwe launched its second National Adolescent and Youth Sexual and Reproductive Health Strategy in 2017 in an effort to address challenges facing adolescents and young people such as unplanned teenage pregnancies, child marriages, maternal mortality, new HIV infections and gender-based violence among others. The Policy is in line with Southern African Development Community (SADC) SRHR strategy which provides member states to accelerate and improve delivery of quality comprehensive sexuality education for youths in and out of school by the sectors of education and youth empowerment.

Bosely (2019) proposed that access to high quality health care is essential for early detection of curable STIs and early initiation of treatment to prevent the spread of STIs and development of complications. Availability of adolescent sexual and reproductive (ASRH) clinics are essential as they help in educating young people on reproductive health matters so that they are well informed on when to seek medical help early, thus reducing the spread of STIs and related complications (Ginidza et al, 2017).

Keller (2020) highlighted that young people face multiple roadblocks in obtaining high quality sexual health information and STI services that help them to reduce the spread of STIs. Lack of sex education among youths has been attributed to the rise in undiagnosed STIs because young people are not fully aware of the signs and symptoms of STIs and how to protect themselves from contracting STIs.

Griffin (2006) indicated that lack of political will on the part of the governments especially developing countries lack commitment in providing funding for SRH services for improved access hindering universal access to SRH services for young people. Lack of proper SRH facilities, trained human resources, shortage of drugs, health facilities operating hours, staff attitudes and use of user fees for STI treatment has also been found to have an impact on young people in accessing SRH services for early STI diagnosis and treatment contributing to spread of untreated STIs.

The WHO (2020) suggested that education and counselling can improve young people's ability to recognize the symptoms of STIs early and increase the likelihood of seeking early treatment and improves on partner notification and treatment, but lack of public awareness, lack of training among health care workers, limited laboratory capacity and inadequate supplies of appropriate medicines particularly in low and middle-income countries and the widespread stigma around STIs remains a barrier hindering the implementation of effective STI interventions.

Bosely (2019) also added that marginalization plays a part in exposing young people to STIs as they disproportionately affect disadvantaged people because they may not have enough information about STIs and they do not have access to adequate and friendly health services.

A study done in Gaborone, Botswana on "Factors contributing to the upsurge of STIs" indicated that young females particularly from impoverished backgrounds are more at risk of contracting STIs because of lack of knowledge, they are mostly uneducated and poor and this forces them to have transactional sexual relationships with partners who shun condom use in exchange for material and financial things (Tapera et al, 2019).

Keller (2020) suggested that young people deserve accurate and complete sex education so as to prevent the occurrence of STIs and their effects. Sexual Reproductive Health Services should provide accurate information about the signs and symptoms, transmission, treatment

and prevention of STIs. They must also be equipped with information that equip them with skills that foster healthy sexual relationships, and to express their sexual autonomy in a healthy way for example being able to advocate for safer sex methods such as use of condoms for prevention of STIs and HIV.

2.5 Public Policy factors

Review of Sexual Reproductive Health Strategies relevant to Sexually Transmitted Infections

The MOHCC comprise of the Reproductive Health Unit which coordinates the provision of comprehensive Sexual and Reproductive Health services (SRH) in all public health facilities in the country. The unit is also responsible for developing and implementing policies and strategies that guide implementation of SRH interventions. It also provides professional and technical support on SRH issues (MOHCC, 2017).

The government of Zimbabwe has shown commitment in improving Adolescent Sexual Reproductive health. A number of strategies and policies were formulated to focus on reproductive health.

The National Health Strategy for Zimbabwe (2010-2015) is one such strategy that highlights the need to target young people early in STI, HIV/ AIDS prevention through awareness programmes. These programmes include components on consequences of early sexual activity, life skills and include information on acquisition of sexually transmitted infections (MOHCC, 2016). The Zimbabwe National HIV and Strategic Plan 2011-2015, have a component that focuses on youths under the social and behaviour change communication.

In 2017 the government of Zimbabwe launched the second National Adolescent and Youth Sexual and Reproductive Health Strategy for 2016-2020 to address reproductive health challenges facing adolescents and young people. It is working together with the Ministry of Primary and Secondary education in developing a Comprehensive Sexuality Education policy (CSE) which is a curriculum- based program which approaches sexuality and relationships

with information that is age appropriate, scientifically accurate and culturally acceptable. This education program also includes discussions on SRHR, family life, relationships, culture and gender roles. It also addresses human rights issues, gender equality and threats such as discrimination and sexual abuse (Mhaka, 2019).

WHO launched the Global Health Sector Strategy on Sexually Transmitted Infections for 2016-2021which is the first strategic direction to collect information on STI prevalence and incidences across representative populations, develops global norms and standards for STI treatment and prevention and leads the setting of global research agenda on STIs including the development of affordable and easy to use diagnostic tests, STI vaccines and add drugs for gonorrhoea and syphilis (WHO, 2020).

Adult/ adolescent Sexual and Reproductive Health (ASRH) challenges are currently recognized through Sustainable Development Goals (SDG) number 3 which aims at eradicating HIV infections and provide universal access to Sexual and Reproductive Health Services (SRHS) and incorporating such services into national strategies.

Other African countries also acknowledged the importance of these ASRH strategies and are implementing related strategies both at community and facility levels including comprehensive sexuality education that is age appropriate and culturally relevant. Other strategies that have been found to impart knowledge in young people to reduce the prevalence of STIs include mass media campaigns, peer education and youth friendly centres to access ASRH services and life skills training.

A review to evaluate the impact of Comprehensive Sexuality Education strategies highlighted the importance of reducing risky sexual behaviours such as having multiple sexual partners, encouraged increased condom use, abstinence and improved health services utilization. Studies to evaluate the effectiveness of ASRH services produced mixed results both in low and middle-income countries. Effectiveness of ASRH strategies at facility and community

levels found limited evidence in improving ASRH outcomes amongst marginalized groups (Muchabaiwa & Mbonigaba, 2019).

Conclusion

STIs expose individuals at risk of both immediate and longer-term negative health consequences such as pelvic inflammatory disease (PID) in females resulting in chronic pelvic pain, ectopic pregnancies and infertility. Mother to child transmission (MTCT) of gonorrhoea, chlamydia, syphilis and HSV can occur during pregnancy or delivery leading to potentially serious and life-threatening infections to the infant.

Given the risks factors associated with STIs, it is important to design control strategies that help in reducing further transmission such as appropriate screening, accurate diagnosis, early treatment, contact tracing and education on correct and consistent use of condoms among others to help reduce the spread of infection and the risk of medical complications (Muchabaiwa & Mbonigaba, 2019).

CHAPTER 3: RESEARCH METHODOLOGY

3.0 Introduction

This chapter highlighted the research methods that were used to conduct the study. Considerations included were the study settings, study design, study population, sample size, inclusion and exclusion criterion and the study variables.

3.1 Study settings

The study took place at Arcadia Primary Care Clinic, which is one of the City of Harare council clinics offering primary health care services including STIs treatment. The clinic is located at 3, 6 kilometres southwest of Harare's Central Business District (CBD) adjacent to Seke Road. It is situated at number 5 Jampies Avenue in Arcadia's medium density suburb near Morgan Zintech College. It has an estimated catchment population of 56 398. The clinic provides primary health care services including STI treatment to patients within Arcadia's catchment areas such as Braeside, Hillside, Cranborne, St Martins, Queensdale, Graniteside industrial area and other surrounding areas outside the catchment area such as Mbare, Sunningdale and Epworth.

3.2 Study design

Case control study design was used in this study. It is a type of observational study where participants are selected for the study based on their outcome status and are compared on the basis of some supposed causal attributes. Thus, some participants have the outcome of interest and are referred to as cases, while some does not have the outcome of interest and are referred to as controls (Setia, 2016).

Cases- in this study, cases are those clients diagnosed and treated for STIs.

Controls- are those participants reporting at the health facility but not diagnosed with STIs.

3.3 Study population

According to Harare City population projections per district of 2021the estimated population of young people between 20-24 years in Arcadia's catchment areas was estimated at 1182 (2,1%) of the total population, with 684 females and 498 males (ZIMSTAT, 2021). The study included clients (both men and women) between 20-24 years of age who visited Arcadia clinic for STI diagnoses and treatment and those seeking health services other than STI treatment at the clinic.

3.4 Sample Size

Finite Population Correction (FPC) formula was used to calculate the sample size. This method is used when the researcher samples without replacement from more than 5% of a finite population, (Daniel, 1999).

$$n = \frac{N (Z \alpha/_2)^2}{(Z \alpha/_2)^2 + 4 Ne^2}$$, where

n is the sample size

N is the study population size

Za/2 is the critical value of the normal distribution at $\alpha/_2$ (for example, for a confidence level of 95%, α is 0.05 and the critical value is 1.96).

e = 5% is the margin of error (MOE)

$Z a/_2 = \pm 1.96$

$$n = \frac{1182 (1.96)^2}{(1.96)^2 = +4 (1182) (0.05)^2}$$

$$n = \frac{1182 (3.8416)}{3.8146 + (4728) (0.0025)}$$

$$n = \frac{4540.77}{3.8416 + 11.82}$$

n= 4540.77

15. 66

n =289.

Therefore, the sample size was 289.

3.5 Inclusion/exclusion criteria

Inclusion criteria

Clients eligible for this study were:

- men and women between 20-24 years
- diagnosed and treated for an STI
- visited the health facility and not diagnosed with an STI but received other health services

Exclusion criteria

Clients excluded from this study were:

-clients who visited the health facility and were below 20 years and above 25 years of age

-clients who did not consent to the study

3.6 Data collection instruments

Self-administered questionnaire were the main research tools. The questionnaires were printed in both Shona and English and each respondent was provided with the questionnaire printed in the language they understood. Interviews were also used to administer the questionnaire. Direct observations were used to gather information on time keeping without the subjects being aware that they were being observed

3.7 Data collection procedure

The researcher obtained approval from the subjects by use of consent forms. The researcher explained the purpose as well as the benefits of the study to the subjects. Interviews were conducted using the questionnaire to those who could not read and write. Structured

questionnaire was given to those who could read and write and are included into the study as they come to the clinic.

3.8 Study Variables

Dependent variables

The dependent variable in the study was having an STI

Independent variables

The independent variables were the risk factors derived from the conceptual framework as shown in Table 2 below.

Table 2: independent variables

Concept	**Variable**	**Data collection technique**
Individual factors	Sex, age, level of education, occupation place of residence, religion	Questionnaire / interview
Interpersonal factors	Age of partner, family set-up and family relations	Questionnaire / interview
Perceived susceptibility	Condom use, age at first sexual intercourse, transactional sex, knowledge about STIs	Questionnaire / interview
Organizational factors	Discussing sexual and reproductive issues at	

	learning institutions or workplace	Questionnaire / interview
Community factors	Availability of recreational services/ activities in the community	Questionnaire / interview

3.9 Data organization and analysis

Questionnaires were checked for completeness and consistency of responses

3.10 Ethical considerations

Ethical approval was obtained from Africa University and Africa University Research Ethics Committee (AUREC), an ethical review committee which protects the rights of study participants. Permission to pre-test the data collection instruments and to conduct the study at Arcadia clinic was obtained from the City Health Department, Harare Head Office.

The researcher obtained approval from the subjects by using the consent forms and explained to them the purpose of the study as well as its benefits. Participation into the study was voluntary and those who wish to opt out during the course of the study were allowed to withdraw from the study at any time without prejudice.

Participants were assured that information collected from them is solely for academic research and it will be treated with confidentiality.

CHAPTER 4: DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.0 Introduction

A total of 173 out of 289 participants (young people 20-24 years, both male and females) were recruited to participate in the study. Two (2) refused to participate in the study and four (4) questionnaires were incompletely filled in. A total of 167 questionnaires (96,5%) were analysed giving a response rate of 57.7%. There were a total number of 82 females (49,1%) and 85 (50,9%) males who participated in the study.

The medial age of respondents was 23 years. The minimum age of respondents was 20 years while the maximum age was 24 years. A total of 59 (35.3%) respondents were in some form of employment as compared to 108 (64.7%) respondents who were not employed.

4.1 Limitations to data collection

The targeted sample size for the study was 289. However, this was not achieved due to the following reasons:

(i). Braeside clinic which is also another health facility in the district for the City of Harare health department was reopened to offer treatment services to pregnant women and their spouses including screening and treatment of STIs and this affected the number of clients who visited Arcadia clinic.

(ii). Some nursing staff from Arcadia clinic were pulled out to participate in the ongoing country wide Covid-19 vaccination program leading to skeletal staff attending to patients, thus affecting the number of clients being attended to at the clinic.

4.2 Analysis of individual factors

Table 3: Individual factors for the respondents

Variable	Respondents reporting an STI episode		Respondents reporting not STI episode	
	N	%	N	%
Sex: male	23	43. 4%	62	54.4%
Female	30	56.6%	52	45.6%
Marital status:				
- Single	7	13.2%	49	43.0%
- Married	28	52.8%	38	33.3%
- Divorced	12	22.6%	18	15.8%
- Widowed	6	11.3%	9	7.9%
Level of education:				
- Primary	21	39.6%	15	13.2%
- Secondary	27	50.9%	50	43.8%
- College/ university	1	1.9	4	3.6
- Still at college/ university	4	7.5%	45	39.5%
Employment status:				
- employed	23	45.1%	12	10.7%
- unemployed	20	39.3%	84	75.0%
- self employed	8	15.7%	16	14.3%
Religion:				
- christianity	34	64.2%	87	76.4%
- no religion	19	35.8%	27	23.7%
Place of residence:				
-Outside catchment	36	67.9%	47	41.2%
-Arcadia's catchment	17	32.1%	67	58.8%

The table above is showing the individual factors of the respondents according to whether reported having an STI or not. Females who reported having had an STI episode were 56.6% of the total respondents as compared to males who were 43.4%. Marital status also proved to be a contributory factor where those who are married (52.8%) and divorced (22.6%) recorded high STI prevalence compared to those who were single (13.2%) and widowed (11.3%).

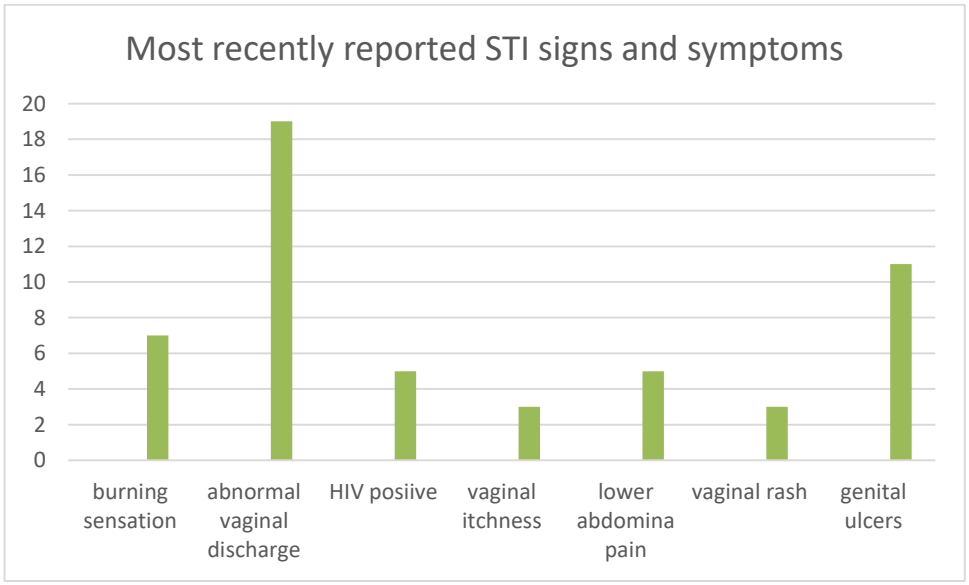
All the respondents indicated they had once attended school to some level with 39.5% of those without STIs being in school (university or college), compared to only 7.5% of those who had had an STI episode being in school at the time the study was being conducted.

Respondents who resides outside Arcadia's catchment areas (high density) were twice more likely to report symptoms of STIs 36(67.9%) compared to those who resides in Arcadia's catchment areas 17 (32.1%).

4.2.1 Univariate analysis of individual factors

Prevalence of STIs among the respondents was 31.7%. High prevalence of STIs was reported among females with 56.6%. Figure 3 below shows the most recent signs and symptoms of STIs reported by the cases. The most reported sign and symptom was abnormal (foul-smelling) vaginal discharge.

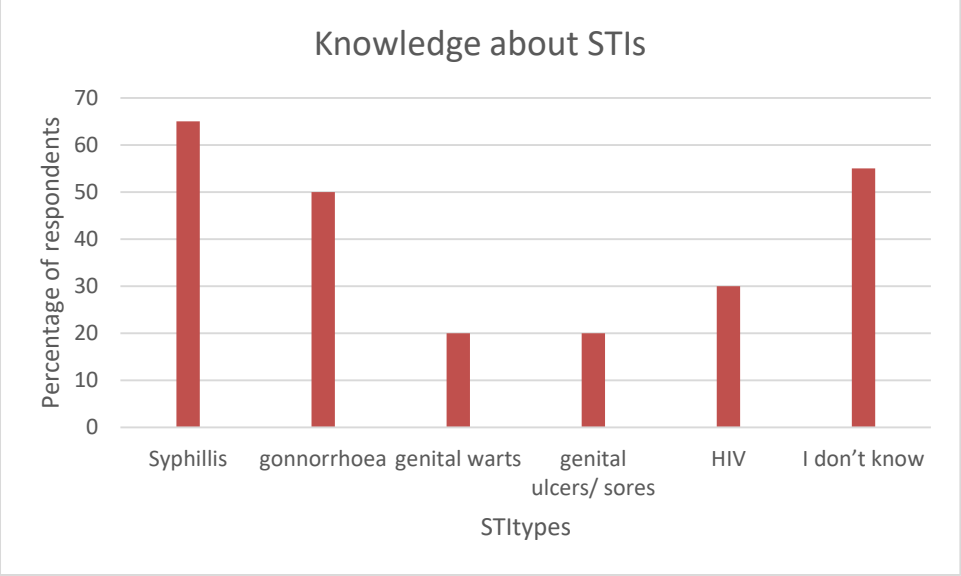
Figure 3: Most recently reported signs and symptoms



Of the 53 respondents that reported having an STI episode, 33 (62.26%) highlighted seeking treatment as follows: clinic 17(51.5%), hospital 8(24.2%), traditional healer 8(24.2%). Twenty (20) of the respondents did not seek any medical treatment and their reason for not seeking treatment include the following: no reason at all 4(20%), no money 4(20%), afraid of being seen 5(25%), it was not serious 3(15%), health centre too far 3(15%) and it cleared on its own 1(5%). Eighty (80) respondents indicated that they were not residing with their parents. They highlighted the following reasons: married 12(15%), resides at college / university campus 26(32.5%), parents relocated oversees 38(47.5%) lives with relatives because parents deceased 4(5%),

4.2.2 Knowledge about STIs

Figure 4: Knowledge about STIs



Fifty- seven (57) of the respondents (34.1%) expressed ignorance on what STIs are and eight-nine (89) of the respondents highlighted that they do not have knowledge about the signs and symptoms of STIs. The respondents used their own aggression to define what an STI is and the assumption was that those who have had signs and symptoms of STIs knew it was an STI but did not know what the type was. Mhaka (2019) cited that lack of knowledge on Sexual

Reproductive Health and Rights (SRHR) and Comprehensive Sexuality Education was the primary cause of indulgence in high risk sexual activities by young people in Zimbabwe. The majority of respondents preferred to discuss sexual and reproductive health matters with their peers 60(39.5%) and 40 with their siblings (26.3%), while one hundred and nineteen (71,7%) of the respondents highlighted that they prefer discussing sexual and reproductive health issues at school (college/ university). The topic that was discussed most is HIV/AIDS with 43 respondents (39.1%).

4.2.3 Myths and misconceptions about STIs among the youths

Table 4: Myths and misconceptions about STIs among the youths

Statement	**Reporting an STI episode**			**No STI episode reported**		
	Agree	**Disagree**	**Not sure**	**Agree**	**Disagree**	**Not sure**
Bathing soon after sex protects one from contracting STIs	1 1.9%	37 69.8%	15 28.3%	30 27.8%	60 55.6%	18 16.7%
Vaccination protects one from contracting STIs	4 7.5%	17 32.1%	32 60.4%	27 25%	38 35.2%	43 39.8%

4.2.4 Perceived risks

A total of 101 (62.73%) young people have had sexual intercourse before. Only 28(27.72 %) had a high-risk perception of being infected with STIs since they were indulging in sex. Only 26(25.74%) of those who have had sex did not use a condom on the first time they had sexual intercourse. Those who highlighted that they were at risk of contracting STIs 28(17.1%), cited reasons that their partners have multiple sexual partners 10(24.4%) and these partners engage in unprotected sexual intercourse 6(14.6%).

4.3 Analysis of interpersonal factors

Table 5: Bivariate analysis of interpersonal factors

Variable	**STIs**	**No STIs**	**POR 95% CI**	**p- value**	**Confidence Interval**	**Risk / Protective Factor**
Do you take alcohol? Yes No	33(63.8) 20(16.8)	15(31.3%) 99(83.8%)	10.89	0.0000	5.00-23.81	Risk factor
Do you have multiple concurrent sexual partners? Yes No	20(50%) 23(30.3)	20(50%) 53(69.7%)	2.3043	0.03	1.046-5.076	Risk factor
Do you smoke? Yes No	9(60%) 44(28.9%	6(40%) 108(71.1%)	3.68	0.013	1.20-10.9	Risk factor
Do you do transactional sex? Yes No	13(76.5%) 22(35.5%)	4(23.5%) 40(64. 5%)	5.91	0.002	1.7-20	Risk factor

Do you have a boyfriend/ girlfriend?						
Yes	51(37.2%)	86(62.8%)	8.3023	0.0005	1.89-36.32	Risk factor
No	2(6.7%)	28(93.3%)				
Do you use condoms?						Protective factor-
Yes	7(26.5%)	19(73.1%)	0.3968	0.057	0.15-1.047	insignifica
No	39(48.1%)	42(51.9%)				nt

Table 5 above is showing results of bivariate analysis of the interpersonal factors of the study. The prevalence odds ratios were calculated to show the strength of the association. P-values and confidence intervals were calculated to test for statistical significance of the associations. Those who recently drank alcohol were 10,89 times likely to report having an STI episode (p= 0. 000, 95% Confidence Interval [CI] =5.00- 23.81) as compared to those who did not consume alcohol. Of those who recently consumed alcohol, nineteen (19) indicated that they once regretted drinking alcohol for the following reasons: engage in prostitution 4(21. 1%), became violent 8(42.1%), engage in unprotected sexual intercourse 4 (21.1%) and not sleeping at home 2 (10.5%).

Having multiple concurrent sexual partners was another significant risk factor for having an STI episode with a POR of 2.30, CI of 1.04- 5.08 and p- value 0f 0.03. Respondents who reported having an STI episode were likely to be involved in transactional sex compared to those who didn't report any STI, POR=5.91, p=0.002, 95% confidence interval (1.7-20).

4.4 Analysis of community factors

Table 6: Bivariate analysis of community factors.

Variable	STIs	No STIs	Odds Ratio(OR) (95%)	p- value	Confidence Interval (CI)	Risk/ Protective factor
Do you go for clubbing?						
Yes	22 (52.4%)	20(47.6%)	3.26	0.0026	1.6-6.79	Risk factor
No	30 (25.2%)	89(74.8%)				
Drinking alcohol at						
bars: Yes	24 (85.7%)	4(14.3%)	30.67	0.0000	9.4-99.09	Risk factor
No	18 (16.4%)	92(83.6%)				
Do you go to church?						
Yes	34 (28.1%)	27(58.7%)	1.8007	0.1014	0.89-3.66	Risk factor
No	19 (41.3%)	87(71.7%)				(insignificant)
Employed:						
Yes	31(52.5%)	28(47.5%)	4.65	0.00001	2.29-9.42	Risk factor
No	20 (19.2%)	84(80.8%)				
Place of residence:						
High density	36 (43.4%)	47(56.6%)	3.019	0.0013	1.52-5.996	Risk factor
Medium	17 (20.2%)	67(79.8%)				
Are you still at college/ university?						

Yes No	4(8.5%) 7(26.9%)	43(91.7%) 19(73.1%)	0.2525	0.035	0.066-0.966	Protective factor
Do you watch pornographic material: Yes No	36(43.4%) 14(17.5%)	47(56.6%) 66(82.5%)	3.61	0.0003	1.75-7.43	Risk factor

Bivariate analysis of community factors is shown in the table above. Young people who frequently visited night clubs were likely to report symptoms of STI with an (Odds Ratio) OR=3.26, 95% CI=1.6-6.79 and a p = 3.26). Young people who visited bars were also likely to report symptoms of an STI (85.7% versus 14.4% at an OR of 23.36, 95% CI (7.49-73.81) and p = 0.000. Respondents who were employed were also likely to report an STI episode at OR= 4.65, CI=2.29-9.42 and p=0.00001.

Young people who resides in the high-density suburbs surrounding Arcadia's catchment boundaries were also more likely to report an STI episode (43.4%), as compared to (20.2%) in medium density suburbs. Watching pornographic material was also a risk factor for acquiring STIs (OR= 3.61, 95%, 95% CI=1.75-7.43 and p= 0.0003). 35 (42.2%) indicated that they watch pornographic videos from their cell phones and 27 (32.5%) watch on television channels. Religion was of no significance as it had a p- value of 0.101.

4. 5 Recommendations

Table 7: Recommendations on STI preventions (from the respondents)

Recommendations	Number of respondents	%
Education on STIs must be included in academic curricula from primary to university level	40	24%
Health workers must conduct awareness campaigns on STI prevention regularly in communities	27	16.1%
Condoms must be made available for free in places of entertainment	20	12%
Youth friendly sites must be established in communities so that young people have access to sexual reproductive health services to promote healthy sexual behaviours	13	7.8%
Adults people/ parents to instil value for life and good behaviour in young people	22	13.2%
Empowering young women financially so as to reduce prostitution (transactional sex)	28	16.8%
Prostitution must be banned	17	10.2%

All the respondents who participated in the study suggested one or more recommendations that may help in reduce the occurrence of STIs in young people. The majority of the respondents 40 (24%) recommended that education on STIs must be incorporated in the academic curricula from primary to university level. This will help young people to have knowledge about STIs from a tender age and be able to make right choices that promote healthy sexual behaviours.

Keller (2020) also supported this idea, suggested that young people deserve accurate and complete sex education so as to prevent the occurrence of STIs and their effects. Sexual reproductive health services should provide accurate information about the signs and symptoms, transmission, treatment and prevention of STIs. They must also be equipped with information that help them with skills that foster healthy sexual relationships, and to express their sexual autonomy in a healthy way for example being able to advocate for safer sex methods such as use of condoms for prevention of STIs and HIV.

4.6 Multivariate analysis of risk factors

Table 8: Multivariate analysis

Variable	**Odds Ratio**	**95% CI**	**Coefficient**	**SE**	**Z-Static**	**p- value**
Unprotected sex	0.35	0.13-0.93	-1.05	0.50	-2.10	0.036
Frequent visits and hanging around in bars	18.79	3.72-94.72	2.933	0.83	3.55	0.0004
Alcohol drinking	3.14	1.01-9.65	1.14	0.57	1.99	0.016
Watching pornographic material	2.87	1.10-7.49	1.05	0.41	2.16	0.03
Constant	-	-	-2.07	0.544	-3.80	0.0001

A model was created through initially starting with the variable that had the least p-value in the bivariance analysis which was alcohol drinking. All variables which were significant in the bivariate analysis were added one by one. After controlling for confounding variables in logistics regression, the factors found to be associating with STIs among the youths were unprotected sex in both male and females, frequent visits to the bars, drinking alcohol and watching pornographic videos pushes them to engage in promiscuous behaviours.

Male young adults were less likely to suffer from STIs as compared to females (OR =0.35, 95% CI = 0.13-0.93 and p-value 0.036). Those who visited bars or night clubs more frequently were more likely to report STI episodes (OR= 18.79, 95% CI=3.72-94.72 and p-value 0.0004), those who watched pornographic material were more likely to report STI episodes (OR =2.87, 95% CI=1.10-7.49 and p-value 0.03). Those who drank alcohol were also more likely to report an STI episode (OR = 3.14, 95% CI=1.01-9.65 and p-value 0.0016).

Conclusion

Analysis of data above indicates that at least one of the social ecological model factors is a risk factor contributing to the occurrence of STIs.

CHAPTER 5: FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Findings

5.1.1 Individual factors

According to the findings gathered, females were more likely to report episodes of STIs than males, (females 56.6%, males 43.4%). Stefan et al (2013) highlighted that both young men and women are at greater risk of contracting STIs but young women suffer more frequent and serious long- term health consequences and STI complications than men. Ramjee and Daniels (2013) also highlighted that women are more vulnerable to contracting STIs including HIV because of their biological make up and socio-behavioural characteristics where they have a larger genital mucosal surface area than men.

In this study, married women 28 (52.8%) reported high STI prevalence compared to those who were not married. Muzondiona et al (2016) found out that women who are married are at risk of contracting STIs because of low socio- economic status compared to men. Most women lack confidence and power to defend for their reproductive rights. Social and economic dependency on men limits their ability to refuse unsafe sex or to negotiate for safer sex methods such as use of condoms, obtain information and receive health care.

Women who are divorced were twice more likely to report episodes of STIs 12 (22.6%). This is because these young women tend to have transactional sex in exchanging for money to earn a living. They are at risk of contracting STIs because they want to earn more money hence they have lower negotiating powers for safer sex practices making themselves vulnerable.

Young age also plays a part in contributing to the contraction of STIs as most young people have got a tendency of engaging in sexual activities early while experimenting sexual acts with different partners without using condoms for protection and they get carried away exposing themselves to contracting STIs. Tapera et al, (2019) concurred that early sexual

debut remains a crucial factor exposing young adults to contracting STIs. They are vulnerable because they engage in unprotected sexual activities early due to sexual exploration, peer pressure, and economic insecurities among others.

Although those who reported episodes of STIs seemed to have knowledge about STIs and their signs and symptoms, this did not protect them from acquiring STIs. In this study, knowledge levels about STIs did not seem to be a protective factor against acquiring STIs.

Transactional sex in females has been found to have an association with acquisition of STIs in this study. 13(76.5%) of the respondents who reported having STI episodes engage in transactional sexual relationships. Ramjee and Daniels, (2013) stated that young people particularly women are at greater risk of contracting STIs because of poverty being perpetrated by economic challenges especially in developing countries where they engage in unprotected sexual activities with multiple partners in exchange for money (sex-work). Susanna et al (2015) also highlighted that transactional sex has been found to be the contributory factor to HIV sero-positivity.

Transactional sex is a risk factor contributing to contracting STIs because negotiating power for safer sex is lost once the sexual act involves exchange for money or material things. In this study, transactional sex in men was inconclusive as compared to the findings by Chadambuka et al (2007) which revealed that paying for sex was a risk factor for contracting STIs in men.

Having multiple concurrent sexual partners has also been found to be a contributing factor for contracting STIs in this study. A study done by Senn et al (2019) similarly correlates multiple sexual concurrencies to alcohol and drug abuse. Having multiple concurrent sexual partners exposes one at a higher risk of contracting STIs as compared to having one mutual partner.

5.1.3 Community factors

Drinking alcohol at bars has been found to be a contributing factor which exposes young people to contract STIs. In this study, 33(63.8%) of the respondents who reported having STI episodes drink alcohol and hang out in bars as compared to 20(16.8%) who do not. Singh et al (2010) supported these findings, they found out that young people who spent most of their free time at bars were more likely to report episodes of STIs compared to those who spent less time. Bars serve as places of socialization where people can meet sexual partners. Prostitutes also conduct frequent visits to the bars to meet and look for clients.

Alcohol consumption with frequent visits and hanging out in bars has been found to have a strong association in the contraction of STIs. Youths who drink alcohol in bars are more likely to become violent, engage in promiscuous behaviours and unprotected sexual intercourse. These findings were supported by Endalew and Bedada (2014) who highlighted that alcohol use is associated with risky sexual behaviours leading to STIs. Seth et al (2011) also echoed the same sentiments, found out that use of alcohol has an influence in risky sexual behaviours particularly in males.

Bittar (2021) also supported these findings that there is a correlation between alcohol abuse and STIs among youths, intoxication lowers inhibition and negatively affects decision making, leading to engaging in risky and ultimately damaging behaviours such as having multiple sexual partners and incorrect use of condoms.

Rositch et al, (2012) also echoed the same sentiments from a study done among drug users and found that drug abuse is also a risk factor for contracting STIs.

Place of residents is also a risk factor contributing to contraction of STIs. In this study, young people residing in high density suburbs were twice more likely to report episodes of STIs compared to those in medium densities. This was attributed by respondents in this study who highlighted that during weekends there are sex parties that occur in communities especially in

high density suburbs where young people within their social networks meet at particular places and take turns in exchanging sex partners for enjoyment.

Sexual networks are groups of people which are considered as having 'links' in sequential or concurrent sexual partners exposes young people to the risk of contracting STIs, a person may have only one sexual partner but if that partner is a member of a risky sexual network, then that person is at a higher risk of contracting STIs than a similar individual from a lower risk sexual network (Healthy People, 2020).

Khasakala and Mturi (2018) also concurred that district of residence influenced risky behaviours facilitating the spread of STIs. These findings contradicted to Westercamp et al (2010), who found no association between STIs and geographical distribution.

Watching pornographic material is another risk factor found to be contributing to the contraction of STIs in this study. Young people who watch pornographic videos are more likely to indulge in risky sexual behaviours compared to those who do not. This was also supported by Endalew and Bedada (2015) in their study conducted in 2014 which showed that youths who watch pornographic material were twice more likely to engage in concurrent multiple sexual partnerships exposing themselves to contraction of STIs. Jonas (2014) also found out that people tend to experiment on what they watch in pornographic videos and in the process limiting use of condoms hence exposing themselves to STIs.

Although there were episodes of STIs reported by youths who are affiliated to some religion in this study, there was no association found between religion and acquisition of STIs. The risk factor was insignificant.

5.2 Conclusions

This study was done to establish factors contributing to the occurrence and upsurge in STIs among youths at Arcadia clinic. Therefore, Ho is rejected and concluded that $\alpha=0.05$, there is at least one social ecological factor associated with contraction of STIs among the youths in

Arcadia's catchment areas. There are number of factors that have been found to contribute to the occurrence and upsurge in STIs among young people in this study and these include the following: having multiple concurrent sexual partnerships and transactional sex without condom use, watching pornographic materials, alcohol consumption with frequent visits and hanging out in bars. Although both men and women reported episodes of STIs, women reported high STI prevalence rates as compared to men. It has also been found that most of the respondents who reported having STI episodes do not necessarily reside in Arcadia's catchment area but come from surrounding high density suburbs such as Mbare, Sunningdale and Epworth.

5.3 Recommendations

- As highlighted by most respondents during the study, there is need for the government through the Ministry of education to incorporate education on STIs in the academic curricula from primary to university level.
- The government through the MOHCC must engage stakeholders for establishment of youth friendly sites in communities and at every health facility to serve as educational and entertainment (edutainment) sites for young people to prevent them from getting entertainment from bars.
- Awareness campaigns on sexual and reproductive health issues must also be scaled up in communities so that young people are well informed and be able to make right choices on sexual and reproductive health matters.
- The government must engage non-governmental organizations and other stakeholders in funding for income generating projects for young people so as to occupy and empower them, thus protecting them from engaging risky sexual behaviours which make them vulnerable.

- Workplaces should provide sexual and reproductive health programs for their employees
- Peer educators must be recruited in communities, schools and workplaces to provide education on sexual and reproductive health matters and behaviour change.
- Advocacy programs which emphasise on faithfulness as well as correct and consistent use of condoms must be part of social behaviour change programs.
- Shops must give out condoms for free, selling of condoms must be banned
- Treatment of STIs must be for free in all health institutions so that everyone gets quicker access to the reduce spread of infection.

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APPENDIX 1: CONSENT TO PARTICIPATE IN RESEARCH (ENGLISH)

Arcadia clinic **Contact no. +263 242 2934317**

No. 3 Jampies Road **+263 777 596 535**

Arcadia

Harare

RESEARCH TITLE

To establish factors contributing to upsurge in Sexually Transmitted Infections (STIs) at Arcadia clinic in Harare from January 2021 to September 2021

INTRODUCTION

Hello, my name is Christine Makoni and I work here at Arcadia Clinic as a Nurse whilst I am doing my studies with Africa University. As part of the studies I am carrying out a research where I am investigating the factors contributing to upsurge of sexually transmitted infections in young people at this clinic. This document is there to allow you the participant to have an informed consent on participating in the research through interviews and questionnaire concerning the purpose of the study. This means that there is nothing outside this sole purpose that shall be involved in the questionnaire either ideas, events or activities. Therefore, I beseech you to read this consent form we discuss the meaning and understanding thereof concerning your participation as an individual with rights and certain freedoms. As such, I will give you an opportunity to ask any questions that you may have and concerns relating to your participation. After this I will require you to sign up for your participation to show that you have agreed to voluntarily participate in this research.

WHAT YOU SHOULD KNOW ABOUT THIS STUDY

I give you this consent form so that you may read about the purpose, risks and benefits of this research study.

- You have the right to refuse to take part or agree to take part now and change your mind later.
- Whatever you decide, it will not affect your regular care.
- Please review this consent form carefully. Ask any questions before you make a decision.
- Your participation is voluntary.

PURPOSE

You are being asked to participate in a research study on factors contributing to the increase of STIs cases among young people at Arcadia clinic in Harare. The purpose of the study is to:

- To establish the common behaviours and other factors contributing to the increase of STIs among young people between 20-24 years at Arcadia clinic from January to September 2021.
- To assess the level of knowledge that young people have about STIs at Arcadia clinic from January to September 2021.
- To provide recommendations on STI management, prevention and control.

You are selected as a possible participant in this study because you are young person between the ages 20- 24 years.

PROCEDURE AND DURATION

If you decide to participate, a questionnaire will be administered to you in a language that you are comfortable with. The questionnaire may take thirty minutes.

BENEFITS AND COMPENSATION

We cannot and do not guarantee that you will receive any benefits from this study.

RISKS AND DISCOMFORTS

The nature of study may provoke psychological harm, memories or discomfort because of personal sexual experiences due to the sensitivity of the subject especially on sexual activity.

CONFIDENTIALITY

Shared confidentiality with study participants will be maintained. Any information that is obtained in connection with this study that can be identified with you will remain confidential and will only be disclosed with your permission. Under some circumstances, the City Health Department may need to review patient records for audit purposes.

VOLUNTARY PARTICIPATION

Participation in this study is voluntary; if you decide not to participate in this study your decision will not affect your future relations with Arcadia clinic, its personnel and related clinics. If you decide not to participate you are free to withdraw your consent and to discontinue participation at any time without any penalty.

OFFER TO ANSWER QUESTIONS

Before you sign this form, please ask any questions on any aspect of this study that is unclear to you. You may take as much time as necessary to think it over.

AUTHORIZATION

You are making a decision whether or not to participate in this study. Your signature indicates that you have read and understood the information provided above, you have had all your questions answered and you have decided to participate.

NB: YOU WILL BE GIVEN A COPY OF THIS CONSENT FORM

Name of Research Participant (please print) …….

Signature…… Date……

Name of Researcher (please print) …….

Signature…… Date…. ……

APPENDIX 2: CHIBVUMIRANO CHEKUTORA CHIKAMU MUHURUKURO YETSVAKURUDZO (MUCHISHONA)

Arcadia clinic **Contact no. +263 242 2934317**

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Arcadia

Harare

MUSORO WETSVAKURUDZO

Kutsvagurudza zvikonzero zviri kubatsiridza kuwanda kwezvirwere zvepabonde kuvarume nevakadzi vechidiki vane makore ari pakati pe 20-24 pakirinika yeArcadia iri muHarare

NHANGANYAYA

Makadii zvenyu? Zita rangu ndinonzi Christine Makoni, ndinoshanda pano pakiriniki yeArcadia uye ndirikuita zvidzidzo zvangu zvekufambiswa kwebasa rehukoti neAfrica Yunivhesiti. Mukati mezvidzidzo izvi ndiri kuitawo tsvakurudzo yezvinhu zviri kukonzera kuwanda kwezvirwere zvepabonde kuvarume nevakadzi vechidiki vane makore ari pakati pe 20-24 pakirinika yeArcadia iri muHarare. Chinyorwa chino chiripo pakuti muite chibvumirano chekuzvipira kwenyu pakutora chikamu musarudzo ino kuburikidza nekupinda muhurukuro ingatipa pfungwa dzinoenderana netsvakurudzo iyi. Izvi zvinoreva kuti hakuna chimwe chiri kunze kwetsvakurudzo iyi chandingada kwamuri rwungava rwuzivo kana zviitiko. Saka

ndichakumbirawo kuti muverenge zviri muchibvumirano chino tigokurukura zvazvinoreva kwamuri maererano netsvakurudzo ino sedungamunhu ane kodzero dzake. Izvi zvichakupaiwo mukana wekubvunza pamunenge musina kunzwisisa kana zvimwewo zvamungada kuziva. Mushure meizvozvo, ndichakumbira mugoisawo siginecha (runyoro rwenyu) kuratidza kuti mabvumirano nemafambiro etsvakurudzo ino.

ZVAMUNGADE KUZIVA MARINGE NETSVAKURUNZO INO

Ndiri kukupai rugwaro urwu kuti muverenge kuti munzwisise chinangwa, zvakanakira nezvamunogona kusangana nazvo mutsvakurudzo ino.

- Makasungunuka kupinda mutsvakurudzo ino uye mune kodzero yekuramba kutora danho rekuva mutsvakurudzo ino pasina kumanikidzwa
- Zvamuchasarudza hazvizokanganisi kurapiwa kwenyu pano.
- Natsai kuverenga kuti munzwisise uye makasungunuka kubvunza mibvunzo
- Sarudzo yenyu haisi yekumbunyikidzwa muchapinda nekuda kwenyu, kana maona kuti hamuna kusungunuka kupinda makasungunuka kusarudza kubuda.

CHINANGWA

- Muri kukumbirwa kupinda mutsvakurudzo ino kuti mutipewo pfungwa dzenyu maringe nezvikonzero zviri kubatsiridza kuwanda kwezvirwere zvepabonde kuvarume nevakadzi vechidiki vane makore ari pakati pe 20-24 pakirinika yeArcadia iri muHarare.
- Kutsvakurudza hunhu huri kuitwa nevechidiki nezvimwewo zvingave zvichikonzera kuwanda kwezvirwere zvepabonde kuvarume nevakadzi vechidiki vane makore ari pakati pe 20-24 pakirinika yeArcadia iri muHarare
- Kuongorora ruzivo rwune vechidiki maringe nezvirwere zvepabonde
- Kutsvaga nzira dzingabatsira kuderedza kuwanda kwezvirwere zvepabonde kune vechidiki

Masarudzwa kupinda mutsvakurudzo ino nekuti muri mumwe wemazera ari kunyanya kubatwa nezvirwere zvepabonde

MAITIRO ATICHAITA UYE NGUVA YACHO

Kana masarudza kupinda mutsvakurudzo iyi pane gwaro ramuchapihwa kuti mupindure mibvunzo inenge yabvunzwa. Zvingangotore maminitsi anokwana makumi matatu.

ZVAMUNGATARISIRE SEMURIPO

Hapana mugove kana muripo uripo patsvakurudzo ino. Munokumbirwa kupa maonero enyu pachena

ZVAMUNOGONA KUSANGANA NAZVO

Zimwe zvichabvunzwa mutsvakurudzo ino zvinogona kukurwadzai kana kukufungisai zvimwe zvinhu zvakakurwadzai zvakaitika muupenyu hwenyu

KUCHENGETEDZWA KWEZVAMUCHATAURA

Mafungiro enyu uye zvamuchanyora zvichange zvakachengetedzwa pakati pangu nemi uye hazvisi kuzoudzwa vamwe vanhu vasinei netsvakurudzo ino. Vakuru vezveutano vanogona kutora maonero enyu kubatsira kusimudzira hutano munyika.

KUPINDA MUTSVAKURUDZO INO

Sarudzo yekupinda mutsvakurudzo ino ndeyenyu uye makasungunuka kuregedza kana muine zvamunenge mafunga. Izvi hazvizokanganisi hukama hwenyu nevashandi vepakirinika uye kurapiwa kwenyu.

MIBVUNZO

Musati maisa runyoro rwenyu sungunukai kubvunza mubvunzo pamusina kunzwisisa.

CHIBVUMIRANO

Muchatora danho rekubvuma kana kuramba rekupinda mutsvakurudzo ino. Kuisa kwamuchaita runyoro rwenyu kunoreva kuti manzwisisa zviga zvataurwa mugwaro rino.

NB: MUCHAPIHWA MAGWARO MAVIRI AMUCHANYORA, RIMWE NDERENYU RAMUCHAENDA NARO

Zita remukwikwidzi (nyorai neruvara runoonekwa) …….

Siginecha …… Musi…….

Zita yemuongorori…….…….

Siginecha…… Musi…. ……

APPENDIX 3: RESEARCH PARTICIPANT QUESTIONNNAIRE (ENGLISH)

QUESTIONNAITRACKING NUMBER… …

May you kindly complete the questionnaire below, the information you provide will be treated as confidential and will be used exclusively for this research project.

SECTION 1: INDIVIDUAL FACTORS

[Instructions complete the following- tick and write responses].

1.1Sex: Male ☐ Female ☐

1.2Age: ☐ years

1.3 Marital status: Single ☐ Married ☐ Divorced ☐ Widowed ☐

Other (specify)_____

1.4 Religion: Christianity ☐ Traditional ☐

Other (specify)_____.

1.5 Place of residence: high density ☐ medium density ☐ low density ☐

1.6 Highest level of education: Primary ☐ Secondary ☐ Tertiary ☐

1.7 If primary is the highest level of education. What was the reason of you leaving school?

_____.

1.8 Employment status:

Employed ☐ unemployed ☐ self- employed ☐

Other (specify)_____.

1.9 Monthly income: < ZWL10 000 ☐ ZWL10 000- 20 000 ☐

>ZWL 20 000 ☐

SECTION 2: INTERPERSONAL FACTORS

2.1 Whom do you live with? Alone ☐ Parent ☐ wife/ husband ☐ relative ☐

(specify relationship)

Other (specify)_____.

2.2 How do you relate with your family?_____.

2.3 Whom do you discuss sexuality and sex related matters with?

Mother ☐ father ☐ aunt ☐ uncle ☐ peers ☐ siblings ☐

Others (specify)_____.

2.4 Have you ever been in a love relationship? Yes ☐ No ☐

2.5 How many boyfriends or girlfriends have you had? 1 ☐ 2 ☐ 3+ ☐

2.6 Do you currently have a boyfriend/ girlfriend Yes ☐ No ☐

2.7 How old is he/she? ☐ years

2.8 When you started your current relationship what was the marital status of your boyfriend/ girlfriend? Single ☐ married ☐ divorced ☐ separated ☐ I don't know ☐

2.9 How many months or years ago did you first date a girlfriend/ boyfriend?

Months ago ☐ Years ago ☐

2.10 Are you still together with your first girlfriend / boyfriend? Yes ☐ No ☐

2.12 Who decided to end the relationship?

You ☐

Boyfriend/ girlfriend ☐

Both of you ☐

2.13 During the time of your relationship, did you or have you dated anyone else?

Yes ☐ No ☐

2.14 How would you describe your relationship?

Casual friendship ☐

Serious but no intentions ☐

An important relationship which might lead to marriage ☐

2.15 Did you have penetrative sex with your boy/girlfriend? Yes ☐ No ☐

2.16 How old were you when you first had sex? ☐ years

2.17 On that first time, did you use a condom to protect yourselves from getting STIs?

Yes ☐ No ☐

2.18 If no, were you concerned that you may contract HIV or other STIS from your partner?

Concerned ☐

Somewhat concerned ☐

Not concerned ☐

2.19 Some young people engage in sexual activities with people older their age. Has this ever happened to you? Yes ☐ ☐

2.20 Some young people receive money or gifts in exchange for sex. Has this ever happened to you? Yes ☐ No ☐

2.21How many girlfriends or boyfriends have you had sex with in exchange for money or gifts?

HEALTH INFORMATION

In this section, may you please provide your views about STIs

2.22 Do you have knowledge about Sexually Transmitted Infections (STIs)?

Yes ☐ No ☐

2.23What are sexually transmitted infections (STIs)?

_____

_____.

2.24 What type of STIs do you know? (Circle your choice of answer)

☐

a. Syphilis

b. Gonorrhea ☐

c. Tichomonas Vaginalis ☐

d. Genital ulcers / sores ☐

e. Genital warts ☐

f. I don't know ☐

g. Other (please specify) _____.

2.25 Mention any signs and symptoms of STIs that you know (Circle your answer /s)

a. Lower abdominal pain ☐

b. Burning sensation when passing urine ☐

c. Vaginal/ urethral discharge ☐

d. Genial sores/ ulcers/ warts ☐

e. I don't know ☐

f. Others (specify)_____.

2.26 What do you think are some of these causes/ contributing to STIs?

a) _____

b) _____

c) _____

d) _____

2.27 Have you ever been diagnosed with an STI?

Yes ☐ No ☐

2.28 If yes specify the type_____.

2.29 What do you think t caused the infection?

_____.

2.30 What can you do as an individual to protect yourself from contracting STIs?

☐

a. Being faithful to one sexual partner

b. abstaining from sex ☐

c. male circumcision ☐

d. condom use ☐

e. I don't know ☐

f. Other (please specify)_____.

2.31 May you please indicate the degree of risk you think you have of getting STIs

a. No risk ☐

b. Low risk ☐

c. High risk ☐

d. I don't know ☐

2.32 If no risk, why do you think you have no risk of getting STIs?

a. I abstain ☐

b. I use condoms ☐

c. I have one sexual partner ☐

d. Other (specify)_____

2.33 Why do you think you are at risk of getting STIs?

a. partner has multiple sexual partners ☐

b. I have multiple sexual partners ☐

c. I engage in unprotected sex ☐

d. Partner engages in unprotected sex ☐

2.34 Indicate your responses on the following using the given scale.

(1). I agree…. (2). Disagree….. (3). I don't know……

a. People who get STIs deserve it _____

b. getting an STI is a curse from God_____

c. a real man should suffer from STIs_____

d. a real man should have more than one woman_____

e. vaccination can protect you from contracting STIs_____

f. bathing soon after sex can protect you from getting STIs_____

SECTION 3: ORGANIZATIONAL FACTORS

3.1 At college / university or workplace do you discuss sexual and reproductive health matters?

Yes ☐ No ☐

3.2 If yes, what topics do you discuss?

a. Sex and sexuality ☐

b. STIs ☐

c. HIV / AIDS ☐

d. Substance and alcohol abuse ☐

e. Other (specify)_____

3.3 Are you getting enough information on the matters you have identified?

Yes ☐ No ☐

3.4 If you are not getting enough information, what do you recommend?

_____

_____

3.5 What are your preferred sources of information on sexual health matters?

a. radio ☐

b. television ☐

c.internet/ social media ☐

d. peer educators ☐

e. church ☐

f. college / university ☐

g. Other (specify)_____

3.6 Do you have a mobile phone? Yes ☐ No ☐

3. 7 Do you have access to the internet? Yes ☐ No ☐

3.8 Which gadget do you often use to access the internet?

a. mobile phone ☐

b. computer at work / home/ college/ university ☐

c. internet café ☐

d. other (specify)_____

3.9 Have you ever watched or accessed pornographic material and from which gadget? Yes ☐ No ☐

3.10 Have you ever suffered from an STI? Yes ☐ No ☐

3.11 If yes, what are the most recent signs and symptoms?

_____

_____

3.12 Did you seek treatment for treatment of the STI? Yes ☐ No ☐

3.13 If yes, where did you get treatment from?

Clinic ☐ hospital ☐ traditional healer/ prophets ☐

3.14 Were medicines available at the health facility? Yes ☐ No ☐

3.15 Did you complete the treatment course? Yes ☐ No ☐

3.16 If no, what was the reason for not seeking treatment?

a. it was not serious ☐

b. I was ashamed ☐

c. I was afraid to be seen ☐

d. Health center is too far ☐

e. I had no money to pay for clinic fees ☐

f. Other reason (specify)_____

3.17 Are condoms available and accessible to you all the time? Yes ☐ No ☐

3.18 If no, state reasons why condoms are not accessible?

_____

3.19 If yes, how often do you use them?

Regularly ☐ Occasionally ☐ Not at all ☐

3.20How do you rate the service by health staff at the health facility you visited Excellent

Good ☐ Poor ☐ ☐

3.21 What can you recommend for the health facility with regards to STIs?

_____

_____

_____.

SECTION 4: COMMUNITY FACTORS

4.1 How do you often spend your free time?

a. visiting friends ☐

b. I spend with my girlfriend / boyfriend ☐

c. doing hobbies ☐

d. going to church ☐

e. I go to the bar ☐

f. other (specify)_____

4.2 Where do you often hang out?

a. shopping center ☐

b. bar ☐

c. hideouts/ night clubs ☐

d. other places(specify)_____

4.3 Do you ever go to clubs or parties where young people entertain themselves?

4.4 If yes, how many times did you go last month? ☐

4.5 Do you drink alcohol? Yes ☐ No. ☐

4.6 If yes, on how many days have you drank alcohol in the last month? ☐

4.7 Do you use/ take drugs of abuse? Yes ☐ No. ☐

4.8 If yes, what do you use/ take? _____

_____.

4.9 Have you ever done anything that makes you regret that puts you at risk of contracting STIs when you were under the influence of alcohol/ drugs?

Yes ☐ No ☐

4.10 If yes, what is it? _____

SECTION 5: PUBLIC POLICY FACTORS

What do you think can be done by the government to prevent young people from getting STIs?

_____

_____

_____.

THANK YOU FOR PARTICIPATING

APPENDIX 4: GWARO REKUBVUNZURUDZA VACHAPINDA MUTSVAKURUDZO (MUCHISHONA)

NHAMBA YEGWARO……

Ndinokukumbiraiwo kuti mupindure mibvunzo ichabvunzwa mugwaro rino. Zvese zvamuchapindura zvichange zvakachengetedzwa uye zvichashandiswa kubatsira patsvakurudzo ino. Saka sungunukai henyu kunyora zviri pamoyo penyu.

CHIKAMU CHEKUTANGA: ZVIKONZERO ZVEDUNGAMUNHU

[Nyorai mhinduro kana kusarudza pane mhinduro dzakanyorwa].

1.1Sex : murume ☐ mukadzi ☐

1.2 Makore: ☐

1.3 Wanano:

handisati ndaroora kana kuroorwa ☐

ndakafirwa ☐

imwe mhando yewanano ☐

1.4 Chitendero chenyu ☐

ChiKristu ☐

Zvemidzimu ☐

Zvimwe zvitendero (zvitaurei)_____.

1.5 Munogara kupi?

nzvimbo dzine vanhu vakawanda ☐

☐

dziri pakati nepakati_

kune vanhu vashoma ☐

1.6 Makadzidza kusvika papi?

Dzidzo yepasi (primary) ☐

dzidzo yepamusoro (secondary) ☐

dzidzo yekudzidzira basa (college / university) ☐

1.7 Kana makadzidza kusvika padzidzo yepasi, chii chakakonzera kuti musaenderere mberi nechikoro?_____

1.8 Basa ramunoita kuzviritira imi nemhuri yenyu

ndinoshandira pakambani ☐

handishandi ☐

ndinoita mubato wemako ☐

mimwe mibato (itaurei) ☐

CHIKAMU CHECHIPIRI: ZVIKONZERO ZVINOWANIKWA MUKUGARISANA KWEVANHU UYE ZVAKAKUKOMBEREDZAI

2.1 Munogara nani?

Ndega ☐ Vabereki ☐

Mudzimai/ murume ☐ shamwari kadzi/ rume ☐

Hama ☐ (ndiani wenyu?)_____

2.2 Munogarisana zvakanaka nevabereki nevamwe vemumhuri menyu here?

Hongu ☐ Kwete ☐

2.3 Munokurukura nani nezvenyaya dzekukura uye dzepabonde?

amai ☐ baba ☐

tete ☐ sekuru ☐

munin'ina ☐ hanzvadzi ☐

shamwari ☐ vamwewo vanhu ☐

2.4 Mune munhu wamakambodanana naye here?

Hongu ☐

Kwete ☐

2.5 Kana mhinduro yenyu iri hongu, makadanana nevarume kana vakadzi vangani pakukurarama kwenyu ☐

2.6 Pane wamuri kudanana naye here iyezvino. Hongu ☐ Kwete ☐

2.7 Kana aripo ane makore mangani ☐

2.8 Pamakatanga kudanana nemurume kana mukadzi wamuinaye izvozvi, ange akamira sei pawanano yake?

ange asina waainaye ☐

akaroora/akaroorwa ☐

vakarambana ☐

handina ruzivo ☐

2.9 Mave nenguva yakareba sei matatanga kuita zvekudanana ?

mwedzi mingani ☐

makore mangani ☐

2.10 Muchiri pamwe chete nemusikana kana mukomana wenyu here?

Hongu ☐ Kwete ☐

2.11Kana makasiyana, ndiani akasarudza kuti musiyane?

Ndini ☐

mukomana/ musikana ☐

tese takawirirana kawirirana kuti tisiya ☐

2.12 Panguva yamaidanana makamboita mumwe mukomana kana musikana here?

Hongu ☐ Kwete ☐

2.13 Mungatsanangura sei kudanana kwenyu

tiri kungotamba/ kufara hedu ☐

tinodanana asi hatina hurongwa hwekuroorana ☐

tinodanana pachokwadi kuti tiroorane ☐

2.14 Makambosangana pabonde here? Hongu ☐ Kwete ☐

2.15 Mange muine makore mangani pamakatang kuita zvepabonde

2.16 Makasangana pabonde nemudiwa wenyu here muchinguva chipfupi chadarika here? Hongu ☐ Kwete ☐

2.17 Makashandisa dziviriro here? Hongu ☐ Kwete ☐

2.18 Kana musina kushandisa dziviriro maiva nehanya here kuti munogona kubatira zvirwere zvepabonde kubva kumudiwa wenyu here?

ndaiva nehanya ☐

ndaizviziva asi handina kuita basa nazvo ☐

ndakange ndisina ruzivo ☐

2.19 Vamwe vezera renyu vechidiki vanodanana nekuita zvepabonde nevakadzi kana varume vane makore akawanda kupfuura avo. Izvi zvakamboitika kwamuriwo here? Hongu Kwete ☐ ☐

2.20 Kana zvakaitika chii chakakusundai kuti mupinde padanho irori?

_____

2.19 Vamwe vechidiki vanopihwa mari nezvimwe zvinodhura kana vasangana pabonde nevarume kana vakadzi vakuru kwavari. Zvi zvakamboitikawo kwamuri here? Hongu Kwete ☐ ☐

2.20 Kana zvakaitika / zvichiitika kwamuri mune varume kana vakadzi vangani vamunosangana navo pabonde vachikupai mari nezvimwewo ☐

2.21 RUZIVO MARINGE NEZVIRWERE ZVEPABONDE

Munganditsananguriraw o here zvamunoziva maringe nezvirwere zvepabonde

Chii chinonzi zvirwere zvepabonde?

_____

_____.

Zvirwere zvepabonde zvinotapuriranwa nenzira dzipi?

_____

_____.

Pane mhando dzezvirwere zvepabonde zvamunoziva here? Sarudzai pane dzakapihwa.

a. Syphilis
b. Gonorrhea (njovhera) ☐
c. Tichomonas Vaginalis ☐
d. Genital ulcers / sores (maronda panhengo yesikarudzi) ☐
e. Genital warts(mhopo panhengo yesikarudzi) ☐
f. Handina ruzivo nezvazvo ☐
g. Dzimwewo mhando (dzitaurei)_____.

Ndezvipi zviratidzo zvezvirwere zvepabonde?

a. Kurwadziwa nechepasi peguvhu ☐
b. Kurwadziwa pakurasa mvura ☐
c. Kubuda zvinenge hurwa kunengo yesikarudzi ☐
d. Kuvaviwa kunhengo yesikarudzi ☐
e. Maronda kana mhopo kunhengo yesikarudzi ☐
f. Kurwadziwa kana uchiita bonde ☐
g. Handina ruzivo ☐
h. Zvimwewo (zvidomei)_____

Ndezvipi zvamunofunga kuti ndizvo zvinokonzera kutapuriranwa kwezvirwere zvepabonde kune vechidiki vari pemakore 20-24?

a. _____

b. _____

c._____

d. _____

Makamborwara here nechirwere chepabonde here? Hongu ☐ Kwete ☐

Kana zvakaitika taurai mhando yacho_____

Chii chakakonzeresa kuti mubatire chirwere ichi?)

_____

_____.

Chii chamungaite sedunga munhu kuti muzvidzivirire kubatira zvirwere zvepabonde? Sarudzai pamhinduro dzakapihwa

a. Kuvimbika kumudiwa mumwe chete ☐
b. Kunonoka kumhanyira zvepabonde usati waroora kana kuroorwa ☐
c. Kuregera zvepabonde ☐
d. Kuchecheudzwa (kuvarume) ☐
e. Kushandisa makondomu ☐
f. Handina ruzivo ☐
g. Zvimwewo(zvidomei)_____.

Kana makazvizitarisa munoona muri pachonjodzi yekutapurirwa zvirwere zvepabonde here?

a. Handisi panjodzi ☐
b. njodzi yakadzikira ☐
c. njodzi yakanyanyisa ☐
d. handina ruzivo ☐

Kana musiri panjodzi, sei muchifunga kuti hamubatiri zvirwere zvepabonde?

a. Handiite zvepabonde ☐
b. Ndinoshandisa makondomu ☐
c. Ndinosangana pabonde nemunhu mumwe chete ☐
d. Zvimwewo zvamunofunga_____

Kana muri panjodzi, sei muchifunga kudaro?

a. Shamwari yangu yepabonde ine dzimwe shamwari dzepabonde ☐
b. Ndine shamwari dzepabonde dzakawanda ☐
c. Handishandisi dziviriro pabonde ☐
d. Mudiwa wangu haashandisi dziviriro kune dzimwe shamwari ☐

Ndiudzeiwo mafungiro yenyu pane zvakanyorwa pazasi. Isai mhinduro yenyu muchishandisa mhinduro dzinotevera.

(1). Ndinowirirana nazvo…. (2). Handiwirirani nazvo….. (3). handizivi……

a. vanhu vanobatwa nezvirwere zvepabonde zvinoenderana nehunhu hwavo_____

b. kuita chirwere chepabonde kusekwa naMwari_____

c. murume chaiye anofanira kurwara nechirwere chepabonde_____

d. murume chaiye anoita shamwari dzepabonde dzakawanda_____

e. mukadzi akaroorwa haabatitiri zvirwere vzvepabonde_____

f. kubaiwa majekiseni ekudzivirira zvirwere zvepabonde kunobatsira kuti usabatwe nezvirwere zvepabonde_____

g. kugeza nemvura uchingobva kusangana pabonde kunobatsira kuti usabatire zvirwere zvepabonde_____.

CHIKAMU CHECHITATU: ZVIKONZERO ZVINGAVE ZVICHIWANIKWA KUCHIKORO/ KUBASA KANA KUCHIPATARA/ KIRINIKA

3.1 Kana muri kuchikoro kana kubasa, munombokurukurawo here nezve hutano maererano nekukura uye nyaya dzepabonde? Hongu ☐ Kwete ☐

3.2 Kana mhinduro yenyu iri hongu, munokurukura nezvenyaya dzipi

a. Nyaya dzekubva zera uye dzepabonde ☐

b. Zvirwere zvepabonde ☐

c. Chirwere cheshura matongo (HIV/AIDS) ☐

d. Kushandisa zvinodhaka ☐

e. Dzimwewo nyaya (dzitaurei)_____.

3.3 Muri kuwana ruzivo rwakakwana here maringe nezvamataura?

Hongu ☐ Kwete ☐

3.4 Kana musiri kuwana ruzivo rwakakwana mune zvamunofunga kuti zvingabatsira here?

_____

_____

3.5 Munofunga kuti mungawana dzidziso iyi nenzira dzipi dzamunofarira imi semunhu wechidiki?

a. wairesi ☐

b. dzimudzangara ☐

c. masasai emumhepo(social media) ☐

d. kubva kune vamwe vechidiki vane ruzivo ☐

e. kunana chipanga mazano veku kereke ☐

f. kuchikoro (university/ college) ☐

g. dzimwewo nzira (dzitaure)_____

3.6 Mune nhare mbozha here? Hongu ☐ Kwete ☐

3.7 Mune mukana wekushandisa masasai –sai (internet) here?

Hongu ☐ Kwete ☐

3.8 Munoshandisa chii pakutsvaga ruzivo nezvamunenge muchida?

a. Nhare mbozha ☐

b. michina yemazuvano ☐

c. muchitoro chinobhadharwa kuti ushandise masaisai (internet café) ☐

d. dzimwewo nzira (dzitaurei)_____

3.9 Munomboverengawo nezvedzidziso dzezvirwere zvepabonde here?

Hongu ☐ Kwete ☐

3.10 Kana mhinduro yenyu iri hongu, ndiudzeiwo zvamakadzidza maringe nezvirwere zvepabonde

_____

_____

_____

3.11 Makamborapiwa chirwere chepabonde here? Hongu ☐ Kwete ☐

3.12 Kana makarapiwa chii chamakaona chakaita kuti mufungidzire kuti mabatira chirwere chepabonde?

_____

_____.

3.13Makatsvaga rubatsiro here? Hongu ☐ Kwete ☐

3.14Kana makatsvaga rubatsiro, Makabatsirwa kupi?

Kukirinika/ chipatara ☐ kun'anga ☐ kumaporofita ☐

Kumwewo (kutaurei kuti ndekupi)_____.

3.15 Kana makabatsirwa kuchipatara makakwanisa kuwana mishonga here?

Hongu ☐ Kwete ☐

3.16 Makanwa mishonga yacho sezvamakarairwa here? Hongu ☐ Kwete ☐

3.17 Kana musina kutsvaga rubatsiro, chikonzero chaiva chei?

a. zvange zvisinganyanyi kuonekwa ☐

b. ndainyara ☐

c. ndaitya kutariswa ☐

d. kirinika/ chipatara chiri kure ☐

e. ndakange ndisina mari yekubhadhara kuti ndirapiwe ☐

f. zvimwe zvikonzero (zvitaurei)_____.

3.18 Makondomu anowanikwa nguva dzese here? Hongu ☐ Kwete ☐

3.19 Kana asingawanikwe chii chinoita kuti asawanikwe?

_____

3.20 Kana achiwanikwa munoashandisa pabonde zvakanyanya here?

Nguva dzese ☐ Dzimwe nguva ☐ Handimashandisi ☐

3.21 Mungatii nemabatirwe amakaitwa pamairapwa?

Ndakabatwa zvakanakisa ☐ Ndizvowo ☐ Handina kubatwa zvakanaka ☐

3.22 Ndezvipi zvamunokuridzira kuti chipatara chiite kubatsira kuderedza kuwanda kwezvirwere zvepabonde?

_____

_____

_____

CHIKAMU CHECHINA: ZVINOKONZERWA NEMAGARIRO EMUNHARAUNDA

4.1 Kana musina kuenda kubasa kana kuchikoro, munenge muchiitei?

a. ndinotanadara neshamwari dzangu ☐

b. ndinotandara nemusikana/ mukomana wangu ☐

c. kuvarairwa nemitambo nezvimwewo ☐

d. ndinoenda kukereke ☐

e. ndinonwa hwahwa ☐

f. zvimwewo zvzmunoita (zvitaurei)_____.

4.2 Munotandarira kupi?

a. kumagirosa ☐

b. kubhawa ☐

c. kunzvimbo dzakahwanda ☐

d. dzimwewo nzvimbo (dzitaurei)_____.

4.3 Munomboenda kunzvimbo dzemafaro kana dzeusiku muchinofara nevamwe vezera renyu here? Hongu ☐ Kwete ☐

4.4 Kana mhinduro yenyu iri hongu, makaenda kanagani mumwedzi wapfuura? ☐

4.5 Munonwa doro nezvimwe zvinodhaka here? Hongu ☐ Kwete ☐

4.6 Kana muchinwa doro, makanwa mazuva manganwa mumwedzi wapfuura?

4.**7** Munoputa zvinodhaka here? Hongu ☐ Kwete ☐

4.8 Kana muchiputa, munoshandisa mhando ipi/ dzipi?

_____.

4.9 Kana makadhakwa pane zvamunoita here zvamusingaiti kana musina kudhakwa zvamunofunga kuti zvinogona kukuisai panjodzi yekutapurirwa zvirwere zvepabonde? Hongu ☐ Kwete ☐

4.10 Kana zviripo zvitaurei_____.

CHIKAMU CHECHISHANU: ZVIKONZERO ZVEMITEMO YENYIKA

5.1 Ndeapi matanho amunofunga kuti anogona kutorwa nehurumende yenyika kubatsira kudzivirira kuti vechidiki vasatapurirane zvirwere zvepabonde?

_____

_____

NDINOKUTENDAI NENGUVA YENYU.

APPENDIX 5: SCHEDULE OF ACTIVITIES

	Aug 2021	Sept 2021	Oct 2021	Nov 2021	Dec 2021	Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022	June 2022
Identify Research area											
Formulate research topic											
Proposal writing: chapter one											
chapter two											
chapter three											
Seeking permission from City Health											
Proposal submission to AUREC											
Data collection											
Data analysis											
First draft write-up											
Second draft											
Final Draft											
Submission of Dissertation											

APPENDIX 6: BUDGET

Item	Unit cost	Quantity	Total cost
Stationery and printing			$50(USD) or $ZWL equivalent
Internet costs	$25 per month	10 months	$250
AUREC fees			USD $15 or equivalent $ ZWL

26598 Unit N

Seke

Chitungwiza

The City Health Director

Rowan Martin Building

P. O Box 596

Harare

04 February 2022

Dear Sir / Madam

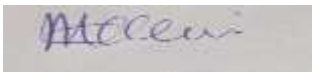
REF: SEEKING FOR PERMISSION TO CONDUCT RESEARCH AT ARCADIA CLINIC

My name is Christine Makoni and I work at Arcadia clinic as an RGN. I'm currently studying for a Bachelor of Science Degree in Nursing with Africa University. I am writing to request for permission to conduct research at Arcadia clinic as outlined in my proposal. I have attached the copy of my proposal for more information and a cover letter from the University.

Yours faithfully

Christine Makoni

Contact number: 0777596535



CITY OF HARARE

All correspondence to be addressed to the
DIRECTOR OF HEALTH SERVICES

DIRECTOR OF HEALTH SERVICES
Rowan Martin Building, Civic Centre,
Pennefather Avenue, Off Rotten Row,
Harare, Zimbabwe.

P.O Box 596
Telephone: +263 (242)753326
753330/1/2
Fax: +263 (242) 752093

Director of Health Services

DR PROSPER CHONZI
MBChB, MPH, MBA

Ref: _____

Your Ref: _____

3/7

22 February 2022

Christine Makoni
26598 Unit M
Seke
Harare

Dear Madam,

RE: Application For permission to conduct Study, at Arcadia titled "Factors Contributing to the upsurge In Sexually Transmitted Infections in Young adults Between The ages of 20-24 years at Arcadia clinic In Harare Zimbabwe'

I refer to the above subject matter.

Permission has been granted to you to conduct the above mentioned study. The broad objective of the study is to establish factors contributing to the upsurge in sexually transmitted infections among young people between the ages of 20-24 years at arcadia clinic in Harare for the period January to September 2021.

Please note that you will be expected to share your study findings with the Harare City Health Department through the Director's office.

Yours Faithfully

DIRECTOR OF HEALTH SERVICES

CITY OF HARARE
CITY HEALTH DEPARTMENT
RECEPTION

Harare to achieve a WORLD CLASS CITY STATUS by 2025

AFRICA UNIVERSITY
United Methodist-Related Institution in Zimbabwe

"Investing in Africa's Future"

DEPARTMENT OF PUBLIC HEALTH AND NURSING: COLLEGE OF HEALTH, AGRICULTURE AND NATURAL RESOURCES

To: AUREC Administrator

Dear Madam

RE: PERMISSION TO SUBMIT TO AUREC FOR CHRISTINE MAKONI

PROGRAMME: POST BASIC DEDREE IN NURSING SCIENCE

ThisletterservestoconfirmthatIhavesupervisedtheabove-mentionedstudentand she hassatisfiedalltherequirementsofthecollegeindevelopingherresearchproposalandisreadyfor ethicalreview.

Yourfacilitation forreviewoftheproposalisgreatlyappreciated.

Thankyou

Mr Tawanda Thabani Dzvairo

ResearchSupervisor

AFRICA UNIVERSITY
(A United Methodist-Related Institution)

For office use only

Protocol no. ……

Office stamp

Type of review: Full Comm

AFRICA UNIVERSITY RESEARCH ETHICS COMMITTEE (AUREC)

APPLICATION FOR INITIAL REVIEW

NB: This form must be completed by all persons/teams applying for ethical review by AUREC. Upon completion by the investigator(s) /researcher(s) it should be submitted electronically to AUREC, Africa University, Fairfield Road, Old Mutare, P.O. Box 1320, Mutare. Application fees (to cover the costs of reviewing proposal) should be paid to the Africa University Business Office, and proof of payment should accompany each application. Please complete all sections of this application form. If there is insufficient space on the form you may use additional pages.

Check list

This checklist is meant to aid researchers in preparing a complete application package and to help expedite review by the AUREC. Please tick all boxes as appropriate (Indicate **N/A** where inapplicable).

CONTACT PERSON'S NAME: **CHRISTINE MAKONI**

CONTACT ADDRESS: 26598 UNIT N SEKE CHITUNGWIZA

EMAIL ADDRESS: **c.makoni@africau.edu**

CONTACT NO: **0777596535**

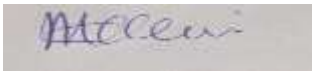
UNDERGRADUATES

		Applicant	AUREC
1	Application form duly completed	✓	
2	Electronic version of research proposal to aurec@africau.edu	✓	
3	Consent forms in English and local language of study population	✓	
4	Advertisement or letter or card used for recruiting participants and any supplementary information *(if applicable).*	N/A	
5	Data collection tools being administered during the study in English and local language of study population *(if applicable)* included in the proposal	✓	
6	Budget and timeframe included in the proposal.	✓	
7	Approval letter from your academic supervisor/college or institution	✓	
8	Approval letter from authorities where study will be conducted	✓	
9	Application fee paid at AU Business Office and receipt (or copy) attached to application form.	✓	

POST GRADUATES AND OTHER RESEARCHERS

		Applicant	AUREC
1	Application form duly completed		

2	Electronic version of full research proposal (chapter 1 – 3 completed) to aurec@africau.edu		
3	Proposal summary (see guidelines below)		
4	Consent form in English and local language of study population		
5	Advertisement or letter or card used for recruiting participants and any supplementary information *(if applicable).*		
6	Data collection tools being administered during the study in English and local language of study population (if applicable)		
7	Budget and timeframe		
8	Approval letter from academic supervisor/college or institution *(if you are a student)*		
9	Approval letter from authorities where study will be conducted		
10	Application fee paid at AU Business Office and receipt attached to application form.		
12	CV's for D Phil and PhD candidates.		

Investigator/ Researcher Signature: 

Name: Christine Makoni

Date: 24/02/22

1. General information

1.1. Study title: Factors contributing to the upsurge in sexually transmitted infections at Arcadia clinic in Harare, Zimbabwe

1.2. Name of Principal Investigator (PI)/ Researcher**: Christine Makoni Reg number 191018**

1.3. Nationality of Investigator/Researcher**: Zimbabwean**

1.4. Proposed date of start of study:**01/01/22**

1.5. Expected duration of study:**5 months**

1.6. Study site(s) in Zimbabwe**: Arcadia Clinic, Harare**

1.7. Sites outside Zimbabwe: **N/A**

1.8. Study budget: **USD $315** Source of Funding: **Personal**

1.9. Is the researcher a student? **Yes**

1.10. If Yes, indicate the following:

1.10.1. Name and address of institution**: Africa University, Fairfield Road, Old Mutare**

1.10.2. College: **College of Health, Agriculture and Natural Sciences (CHANS)**

1.10.3. Level of study **Undergraduate**

1.10.4. Name of Supervisor: **Mr. Thabani Dzvairo**

1.11. If No to question 1.10, then indicate the following:

1.11.1. Name and address of institution:

_____N/A_____

1.11.2. Academic Title of PI:

_____N_/A_____

1.11.3. Existing Qualifications:

_____N/A_____

1.11.4. Co Investigators:

Names:

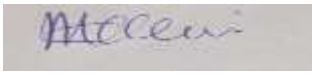
Qualifications

Institution

N/A		
N/A		
N/A		

2. Statement by the investigator

I, Christine Makoni certify that the information in this application document and the accompanying documents is true and complete in all respects. I confirm that the application has NOT been rejected by any other ethics review committee.

Signature:  Date: 24/02/2022

3. Guidelines for the proposal summary: (Times New Roman, double line spacing, font size 12)
   3.1. Introduction
   3.2. Background, purpose, statement of the problem, justification, significance of the study
   3.3. Aim(s) and objectives: Outline the main aim(s) and objectives of the study and research questions.
   3.4. Literature review
   4.0 Methodology

4.1 Research Design *(describe how the research will be carried out including plans for data analysis and dissemination)*

4.2 Study population and sampling procedure *(give details of the study population and how you will carry out the sampling procedure and NOT general meanings of population and sampling methods)*

4.3 Inclusion/exclusion criteria *(state who qualifies for selection and who does not)*

4.4 Devices, Tests, Questionnaires, and Interview Guides:

4.5 Research participants/subjects

- 4.5.1 State the total number of human participants to be enrolled
- 4.5.2 State the source(s) of recruitment *(e.g. hospitals, schools, etc.)*
- 4.5.3 Age range and sex of participants to be recruited.
- 4.5.4 Special or vulnerable populations *(state if vulnerable populations e.g. pregnant women, adolescents, children, prisoners, refugees etc. are involved)*
- 4.5.5 Payment *(if any)* to be paid to each participant
- 4.5.6 Informed Consent Procedure *(describe how this will be carried out)*

4.6 Potential Benefits of the research *(Describe the benefits of the study both to the participants and to the community)*

4.7 Potential Risks

- 4.7.1 Describe any potential risks, discomforts or harms that may be experienced by the participants. These may be physical, psychological, social, legal, economic or other and state procedures to minimize these.
- 4.7.2 Management of Risks *(describe how these risks will be managed/mitigated)*

4.8 Confidentiality/privacy *(give details of how these will be maintained)*

4.9 Investigator Experience/qualifications *(describe any experience or training/courses that the investigator has/has taken that put him/her in good stead to carry out the study)*

4.10 Explain how research results are going to be disseminated to participants

5. Reference List

6. Attachments

6.1 Approval letter from College Supervisor (if you are a student)

6.2 Data collection instruments *(Include anything you will be using to gather data from human subjects e.g. Tests/Questionnaires/Observation Checklists/interview guides/ FGDs guides etc.)*

6.3 Informed Consent Forms or assent (*informed consent form guide is available from AUREC)*

6.4 Budget and timeframe

6.5 Proof of payment of the review fees.

Dear Customer,

Your Local Transfer request with the following details has been submi

Reference Number : ZW-013-220218-165815295-153548-665

Transfer From :STAFF CURRENT ACCOUNT-SPECIAL,XXXXXXXX

Transfer Mode : RTGS

Beneficiary Details : Africa University,XXXXXXXXX7290,ZWL

Beneficiary Country (Country of Residence) : ZIMBABWE

Beneficiary Address : Mutare

Beneficiary Bank Name : STANBIC BANK ZIMBABWE LIMITED

Remittance Amount : ZWL 1,800.00

Deal Number (if any) :

Transfer Date (DD/MM/YYYY) : Fri Feb 18 16:58:15 WAT 2022

Charges : SHA - SCB ZW charges to me and rest of the charges to

Description (Purpose of Transfer) : Christine Makoni AUREC Fees

Please call our Call Centre no +263 242 254281-3 or 263 475 8078

Yours sincerely,

Standard Chartered Bank.