

**PERCEPTIONS OF RISKS OF HUMAN IMMUNODEFICIENCY VIRUS INFECTION
AMONG STUDENTS IN THE INSTITUTE OF DEVELOPMENT MANAGEMENT,
GABORONE, BOTSWANA CAMPUS**

BY

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DEDICATION

In loving memory of my father Mr Edward Matale and my dear friend Dr Reuben Double Koontse. Although they are no longer in this world, their memories continue to regulate my life, I am grateful to have shared a life with them.

DECLARATION

I declare that PERCEPTIONS OF RISKS OF HUMAN IMMUNODEFICIENCY VIRUS INFECTION AMONG STUDENTS IN THE INSTITUTE OF DEVELOPMENT MANAGEMENT, GABORONE, BOTSWANA CAMPUS, is my own work and that all the sources that I have used and quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted before for any other institution.

.....
Kegomoditswe Malefho

.....
Date

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- Institute of Development Management Botswana Campus for giving me permission to conduct the study.

ABSTRACT

PERCEPTIONS OF RISKS OF HUMAN IMMUNODEFICIENCY VIRUS INFECTION AMONG STUDENTS IN THE INSTITUTE OF DEVELOPMENT MANAGEMENT, GABORONE, BOTSWANA CAMPUS

Background: Acquired Immunodeficiency Syndrome still remains the leading cause of death globally. Understanding students' views about the risk of Human Immunodeficiency Virus infection by exploring and describing their perceptions may help to design effective Human Immunodeficiency Virus prevention interventions. The tertiary institution environment offers a great opportunity for Human Immunodeficiency Virus high risk behaviours, including alcohol and drug abuse, unsafe sex, multiple sexual relationships, intergenerational and transactional sex. Despite the decline in the overall incidence of Human Immunodeficiency Virus infection, still a significant proportion of the youth population are at risk of Human Immunodeficiency Virus infection.

Objectives: The study was to explore and describe perception of risk of Human Immunodeficiency Virus among students at the Institute of Development Management, Gaborone, Botswana Campus.

Methodology: A qualitative, exploratory, descriptive study using semi-structured interviews with purposively selected second year Public Health students was conducted. Interviews were conducted using an interview guide. It was audio recorded until data saturation was reached, where eight students participated in the study. Voice recordings were transcribed verbatim and analysed thematically.

Results: The findings reveals that some participants perceive themselves to be at risk of contracting Human Immunodeficiency Virus, while others perceive themselves as being not at risk of Human Immunodeficiency Virus infection. Several risk factors associated with Human Immunodeficiency Virus infection, for example, alcohol and drug abuse, multiple concurrent sexual relationships, intergenerational and transactional sex are revealed as challenges. They also expressed their fears in relation to Human Immunodeficiency Virus testing, pregnancy and disclosure of Human Immunodeficiency Virus positive status due to the stigma and discrimination.

Conclusion: High risk behaviours leading to Human Immunodeficiency Virus and Acquired Immunodeficiency Syndrome prevalence are still common among young people, hence the need for government and all stakeholders to specifically address them by coming up with specific behavioural intervention programmes.

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DEFINITION OF CONCEPTS

Perception

Perception is the process by which people translate sensory impressions into a coherent and unified view of the world around them (Glanz, Rimer & Viswanath 2016). In this study, perception means the views of the Institute of Development Management students about Human Immunodeficiency Virus risk infection.

Human Immunodeficiency Virus

This is the virus that causes Acquired Immunodeficiency Syndrome, by attacking one's immune system, which gives one's body the ability to fight infections (World Health Organization 2019). In this study, Human Immunodeficiency Virus is the virus that attacks one's immune system and weakens the body to fight other infections. Students will be asked about their perceptions of Human Immunodeficiency Virus risk.

Risk

Risk is any attribute, characteristic or exposure of an individual that increases the likelihood of developing a disease or injury (Collins English Dictionary 2013). In this study, risk is any factor or behaviour that can put Institute of Development Management students or expose them to Human Immunodeficiency Virus infection.

ABBREVIATIONS

AIDS:	Acquired Immunodeficiency Syndrome
ART:	Anti-Retroviral Therapy
BAIS:	Botswana AIDS Impact Surveillance
BNSF:	Botswana National HIV and AIDS Strategic Framework
CDC:	Centre for Disease Control and Prevention
HBM:	Health Belief Model
HIV:	Human Immunodeficiency Virus
IDM:	Institute of Development Management
NACA:	National AIDS Coordinating Agency
STIs:	Sexually Transmitted Infections
TREC:	Turfloop Research and Ethics Committee
UNAIDS:	Joint United Nation Program on HIV and AIDS
UNICEF:	United Nations International Children's Fund
WHO:	World Health Organization

CHAPTER 1

OVERVIEW OF THE STUDY

1.1 INTRODUCTION AND BACKGROUND

According to the Centre for Disease Control and Prevention (2018), one population that might experience a profound impact of Human Immunodeficiency Virus (HIV) are college students and this is due to certain behaviours, including low HIV testing rates, substance abuse, low rates of condom use, and multiple sexual partners. The college environment is prone to sexual experimentation, and this is a cause for concern. Young people (15-24 years old), including university students are marked by social transitions such as finishing schools, independent living, and first sexual relationships (Hendricks, Brooks, Tague & Ray, 2018). This phase of transition and sexual activity among this group represents a major challenge in HIV prevention. The Joint United Nations Program on HIV and AIDS (2019) HIV Prevention 2020 Road Map of Accelerating HIV prevention intends to reduce new infections by 75% from 2010 to 2020 because the slow decline of new HIV infections threatens further progress towards ending AIDS. According to the World Health Organization (2019), over 30% of all new HIV infections globally are estimated to occur among young people aged 15 to 25 years, an age group of interest for colleges and universities. In 2018, young people aged 13 to 24 made up 21% of the 37,832 new HIV diagnoses in the United States of America (The Joint United Nations Program on HIV and AIDS 2019).

Hendricks et al (2018) reported that administrators and educators in colleges and universities are developing strategies of educating their students about this life-changing virus and the importance of testing for HIV. Thus, an informed and educated person will perhaps make better choices and decisions regarding their sexual and life activities. It seems the overwhelming response is that of general knowledge of HIV and AIDS, but there is a lack of proactivity when it comes to utilising preventative measures and resources on the college campus (Hendricks et al 2018). Unfortunately, living ignorantly, and blissfully, has become somewhat of the norm among college or university students. Despite the high prevalence of risky sexual behaviour among college students, HIV risk

perception in this population remains low. According to Haile, Kingori, Darlington, Basta and Chavan (2017) in a study of HIV Risk Perception among college students at a University in the Midwest, a greater proportion of students (81.5 %) perceived that they are not at risk of HIV infection. The study concluded that college level HIV prevention efforts should continue to address HIV risk and that additional research examining risk perception in a much larger, and more diverse, student population is needed.

HIV incidence remains high in many countries, particularly in Sub-Saharan Africa, with reductions failing to meet international targets. Sub-Saharan Africa is largely affected and accounts for 70% of the global total new HIV infections (The Joint United Nations Program on HIV and AIDS 2019). It is worth noting that the total number of new infections every year has been declining slowly worldwide. In nearly a decade (2010 – 2019), the new infections have dropped from 2.1 million to 1.7 million (The Joint United Nations Program on HIV and AIDS 2019). However, HIV and AIDS continue to be a public health concern for many countries around the world, and this has serious consequences for the communities and the governments' health resources and economy.

A multicentre study by Abiona, Balogun, Yohannes, Adefuge, Yakut, Amosin and Frantz (2014) conducted in four countries, namely; United States of America, Turkey, Nigeria and South Africa among university students states that HIV risk perception affects the decision to accept HIV test among university students in Sub-Saharan Africa. In part, this reflects the continued low use of primary HIV prevention methods. One factor that is considered important and often necessary for motivation to engage in HIV prevention behaviour is perceiving a personal risk for HIV acquisition. Furthermore, it was concluded that more students in countries with higher HIV prevalence in Nigeria and South Africa had accurate HIV and AIDS knowledge and poorer perception of their level of knowledge than students in countries with a low prevalence in United States of America and Turkey.

Botswana, like other countries, is confronted with the increasing incidence of HIV among young adults aged 15-24, which is the cohort of tertiary students. According to The Joint United Nations Program on HIV and AIDS (2019), it is estimated that over 10 000 new

cases of HIV are reported every year among this cohort in Botswana. In this cohort, girls are said to be at high risk of infection than boys. Though Botswana has made substantial progress in tackling HIV and AIDS among this cohort as treatment has become more readily available, more remains to be done in targeting HIV prevention programmes towards young people, especially students in tertiary institutions. In Botswana, young people continue to engage in risky sexual behaviour despite widespread information and knowledge about HIV and AIDS. A study by Majelantle, Keetile, Bainame and Nkawana (2014) found that among University of Botswana students, questions related to HIV and AIDS knowledge yielded 96% correct responses. Despite this knowledge, the study found that the perceived use of testing services and condoms remain lower than might be predicted based on knowledge scores.

Though several studies have been conducted on higher educational institutions on HIV and AIDS in Africa for example a study Abiona et al (2014) and by Majelantle et al (2014), a few have been conducted in Botswana. Evidence from these studies demonstrated that HIV and AIDS are being experienced to a varying extent in higher institutions across Africa, hence the need to conduct this study in Botswana, especially at the Institute of Development Management (IDM). This study is therefore an attempt to fill this void by exploring the perception of HIV risk among IDM students.

1.2 PROBLEM STATEMENT

Every week, around 5500 young women aged 15–24 years become infected with HIV, and they are twice as likely to be living with HIV than men (The Joint United Nations Program on HIV and AIDS 2019). The 2014 Tertiary Education Baseline Audit report indicates that 82.5% of students in tertiary institutions in Botswana had engaged in sexual intercourse, whilst 45% engaged in sex without a condom. A study by Faimau, Maunganidze, Tapera, Lynne, Mosomane and Apa (2016) recommends a need to promote research activities that focus on exploring HIV risk perception, hence the reason behind this study. Furthermore, it states that students move away from the support, supervision and guidance of their parents, and from rural areas into towns and cities

where they are faced with peer pressure, cultural shock and of course, the need to belong as they start a new life in tertiary institutions.

National AIDS Coordinating Agency (2016) indicates that young people may engage in intergenerational sex to set standards or improve their status in society. It is for these reasons that this study would like to explore and describe perception of HIV risk among students in IDM by getting their views, more so in the era where Anti-Retroviral Therapy (ART) is given immediately when one tests positive for HIV. Though there are studies that have been done in this area, this type of study has not been done at IDM, hence the need to conduct this study.

1.3. LITERATURE REVIEW

Conducting a literature review, according to Polit and Beck (2018), is similar to doing a full study because the reviewer starts with a question, formulate, and implement a plan of gathering information. The information gathered is analysed and interpreted, and findings are then summarised in a written report. It is important for the reviewer to use findings from prior studies to share with the readers the results of other studies that are closely related to the one being undertaken, and to relate the study to the larger, ongoing dialogue in the field by filling in gaps (Creswell 2014). In this study, literature was sourced from different research papers. This assisted the researcher to identify what other researchers have reported with respect to the research problem.

The study reviewed literature on the following topics which are discussed in detail in Chapter 2: Students and their vulnerability to HIV infection, tertiary students and HIV and perception of HIV risk.

1.4. AIM OF THE STUDY

The aim of this study was to determine HIV risk perceptions among students at the Institute of Development Management, Botswana Campus.

1.5. OBJECTIVES OF THE STUDY

- To explore perceptions of HIV risks among students of the Institute of Development Management, Botswana Campus.
- To describe perceptions of HIV risks among students of the Institute of Development Management, Botswana Campus.

1.6. RESEARCH QUESTION

What is the perception of risk of HIV infection among students at the Institute of Development Management, Gaborone, Botswana Campus?

1.7. RESEARCH METHODOLOGY

The researcher used the qualitative, exploratory, descriptive design to explore and describe HIV risk perception of IDM students. The qualitative research method was used in this study as an appropriate method that allowed the researcher to get rich information on the research problem. The researcher went on to collect data from participants using semi-structured interviews and an interview guide. An audiotape was used to capture the data from participants, and field notes were also taken. The sample population consisted of second year students of IDM Gaborone enrolled in the Public Health programme with an age range of 18- 30 years, male and female.

The information gathered was analysed using thematic content analysis, and was grouped according to emerging thematic areas. The process of data analysis and interpretation helped the researcher to answer the research question. More information on the research methodology is discussed in detail in Chapter 3.

1.8. SIGNIFICANCE OF THE STUDY

The significance of this research may be to increase understanding of this complex phenomenon, and to contribute to efforts aimed at reducing incidences of HIV. It may also add to the literature about perceptions of risk factors associated with HIV among students. IDM may use the results to strengthen and improve the HIV and AIDS support services within the institute. Furthermore, the Ministry of Health and Wellness, programmers in

government, private and non-governmental organisations may use the findings of the study to influence policies and for future programme implementation.

1.9. CHAPTER OUTLINE FOR THE STUDY

Chapter 1: Briefly discusses the overview of the study, the research problem, the aim of the study, objectives and the significance of the study.

Chapter 2: The literature review in the context of the research that was undertaken.

Chapter 3: Describes the research methodology and the study design

Chapter 4: Findings and literature control

Chapter 5: Summary, recommendations, strengths and conclusions

1.10 CONCLUSION

This chapter covered the overview of the study, with focus on introduction, research problem, literature review, purpose of the study, research question and the objectives, methodology as well as significance of the study. Chapter 2 reviews literature from other studies that are significant in building knowledge of this study.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

Chapter 1 addressed an overview of the study, with focus on introduction, research problem, literature review, purpose of the study, research question and objectives, methodology as well as significance of the study. This chapter presents the literature reviewed in relation to perceptions of HIV risk among IDM students. The review focused on the following subtopics: students and their vulnerability to HIV infection, tertiary students and HIV and perception of HIV risk.

2.2 STUDENTS AND THEIR VULNERABILITY TO HIV INFECTION

HIV and AIDS is one of the worst health crises recorded in the history of the world. It has moved beyond being primarily a health issue to a developmental crisis. Centre for Disease Control (2018) report estimates that ages of 15-24 make up one-fourth of the sexually active population, but account for half of all new sexually transmitted infections (STIs) in the United States of America each year. HIV is a problem worldwide, the disease is particularly consistent problem in the United States of America among those aged 13-24 young adults that attend college. In a national study done by Hanover (2017), surveyed college students from 92 United States of America institutions and the study results concluded that 8.2% of male college students and 4.3% of female college students were engaging in anal sex within the past 30 days. Furthermore 45.1% of male college students and 44.9% of female college students reported to have engaged in oral sex in the past 30 days. The study in Indonesia where randomly selected universities students were selected revealed that 36.8% of 296 university students ever engaged in premarital sexual intercourse. Fifty-three percent of university students who have had sex were not being faithful or ever had sex with 2 or more persons. Sixty-eight percent of university students who had sex did not use a condom (Umam, Hemchayat & Wetasin, 2017).

More than 83% of all new infections in many African countries are among young people (Centre for Disease Control and Prevention 2018). A study in Ethiopian Civil Service

College (ECSC) by Petros (2014) sought to assess risk perceptions, HIV and AIDS-related knowledge, attitudes and behaviours of the ECSC community. The study concluded that all respondents never perceived that they are at risk for HIV. Unsafe sex and multiple concurrent sexual partnerships were found among all religious groups, married staff and students in ECSC. This shows that higher learning institutions need to seriously address HIV and AIDS in their mandate as HIV is dangerous, and students do not perceive themselves to be at risk of HIV infection. Another study by Faimau et al (2016) established that although more than 90% of students correctly identified routes of HIV transmission, misconceptions regarding HIV and AIDS still exist.

2.3 TERTIARY STUDENTS AND HIV

A study by Hasham, Rana and Shareen (2015) in Irish University; Ireland, showed that a high proportion of students were engaging in risky sexual behaviour and had never been tested for HIV. It must be noted that the programmes that are relevant to high school students and the general population may not be relevant to students in tertiary institutions. The study by Zefi (2015) among students of the university of Prishtina in Kosovo, Czech Republic indicates that knowledge about HIV and AIDS was very low as students reported a lot of misconceptions about HIV transmission. Though Kosovo has low prevalence of HIV, there is need to address HIV and AIDS by coming up with strategies that will address the knowledge gap among students.

In a study conducted in Obafemi Awolowo university in Nigeria by Muoghalu and Afolabi (2015) concluded that the majority of respondents had heard about HIV and AIDS, most of them regarded the disease as deadly and dangerous, but still the majority felt that they were not at risk of contracting the disease. The fact that the majority saw themselves as not being at risk of contracting the virus is an indication that they saw it as other people's disease that would never come near them. It was also an indication that they were not likely to implement lifestyle changes that were needed to reduce the spread of the virus. Another study by Murwira, Khoza, Mabunda, Maputle, Mpeta and Nunu (2021) on knowledge of students regarding HIV and AIDS at a rural university in South Africa

concludes that misconceptions about HIV and AIDS, transmission routes and prevention aspects are still prevalent among tertiary students. Therefore this calls for strengthening of HIV programming for tertiary institutions to foster desirable behaviours that will minimise the spread of HIV and AIDS.

Garegae, Mogotsi and Gobagoba (2017), in a study of students in Botswana, concluded that it is perceived that young men and women who are not married are more likely to be involved in risky sexual behaviour. It has been suggested that a study of perceptions is the first step for changing the behaviour from risk-takers to safer behaviours. It was also found that younger people are less likely to be getting themselves tested for HIV compared to older people with the perception that they are immune against HIV infection.

2.4 PERCEPTION OF HIV RISK

A study conducted in Malaysia about the perception of HIV and AIDS among college and university students by Umar, Embong, Zakaria, Mutalib and Mohamad (2019) found that there is a significant difference between students' perceptions and their levels of education. Umar et al (2019) said students at degree level have different perceptions compared to those at diploma and pre-university levels regarding HIV and AIDS. For example, the students had a realistic perception of risk towards HIV and AIDS, especially if they engage in unhealthy behaviour. A majority of students (92.8%) agreed that those who practised unprotected sex with increasing partners, and share needles with intravenous drug users are at high risk of contracting HIV and AIDS. Because of this, most students feel a bit afraid of people who have HIV and AIDS. Jahic, Porobic-Jahic, Zepic, Piljic, Petrovic and Custovic (2020) conducted a survey among medical students in Tuzla, Bosnia and Herzegovina and found the existence of stigma and fear among participants on people living with HIV and AIDS. The study indicates the importance of creating health education programs to help students understand HIV more and not only to focus on knowledge, but also ways or measures of minimising stigma, fear and anxiety as they are the pre-disposing factors to HIV infection. A study by Zefi (2015) among students of the University of Prishtina in Kosovo, Czech Republic indicates that perception of risk to HIV and AIDS was very low among the students. The study further

shows the importance of intensifying efforts to combat HIV and AIDS by targeting tertiary students who do not perceive themselves to be at risk.

According to Ndabarora and Mchunu (2014) in a study in Durban South Africa among students in college and university, being in a tertiary institution puts young people at high risk of HIV. Most first time tertiary students are teenagers who would have been under the care, support and supervision of the parents before proceeding to the tertiary. So tertiary life gives them an opportunity to test the limits of their new found freedom through experimentation. Therefore, experimenting in the new environment for tertiary students involves engaging in risky sexual activities which can expose them to risk of HIV. A study by Kunguma, Pelser, Tanyi and Muhame (2018) conducted in South Africa among students of the university of Free State, concludes that there are contributing factors that serve as barriers to the success of HIV and AIDS at the university. The barriers manifested from the students' perception of risk of HIV infection, knowledge about the HIV and strategies to protect themselves as students. This study clearly shows that there is more that has to be done to increase knowledge and address the barriers that impede tertiary students to adopt HIV preventive measures.

Another study by Majelantle et al (2014) in Botswana found that misconceptions about HIV transmission continue to exist among students and that they vary by sex, age and level of education. The results of this study were consistent with others in Africa where perceptions and beliefs about HIV transmission were likely to sustain the spread of HIV and AIDS among students. This clearly shows that there is a crucial need for students to be continuously provided with HIV education and relevant prevention messages to help protect themselves from infection, and to remove the prevailing misconceptions. It is therefore important to urgently implement strategies that will improve HIV infection risk perceptions and aversion by intensifying research and education.

2.5 CONCLUSION

Chapter 2 presented the literature review in relation to the perceptions of HIV risk among IDM students. The review focused on different authors on the following subtopics:

students and their vulnerability to HIV infection, tertiary students and HIV, and perceptions of HIV risk. From the literature sourced, the studies showed that students continued to engage in risky behaviours for the spread of HIV and AIDS which showed students and their vulnerability to HIV infection. Furthermore on the aspect of tertiary students and HIV, studies showed that majority of the students have knowledge about HIV and AIDS and regarded HIV as deadly and dangerous. Regarding student perception of HIV risk, studies revealed that students felt that they were not susceptible to contracting HIV infection and hence an indication that they will not adopt HIV preventive measures. The results of the studies mentioned above, showed that there is need to conduct research on tertiary students and HIV to inform HIV and AIDS programming for tertiary students and youth in general. Chapter 3 will discuss the methodology used in this study.

CHAPTER 3

RESEARCH METHOD

3.1 INTRODUCTION

The previous chapter discussed the literature review from different articles related to this study. In this present chapter, the researcher presents a detailed discussion of the research method, design, research site, study population, sampling, data collection, data analysis, measures to ensure quality and ethical considerations.

3.2 RESEARCH METHOD

The research methodology relates to specific procedures or techniques used to identify, select, process, and analyse information about a topic. In this study, the qualitative approach was used because the researcher wanted to explore and describe perceptions of IDM students about HIV risks. Tracy (2013) states that qualitative studies focus on structuring knowledge that utilises methods of inquiry that emphasises subjectivity and the meaning of the experience of the individual.

3.3 RESEARCH DESIGN

An exploratory, descriptive design was used to explore and then describe HIV risk perceptions of IDM students. Qualitative descriptive research study seeks to discover and understand phenomena, processes, perspectives or worldviews of the people involved (Polit & Beck 2017). This type of a design was chosen for this study to accurately understand the views of students about HIV risk and then to attempt to describe systematically a situation, problem, service or programme as they perceive them and not change any response. Additionally, the qualitative research design was selected for the study because it enabled the researcher to explore by digging deeper into the perceptions of students regarding HIV risk in order to propose recommendations which may assist in HIV programming for students in tertiary institutions. The qualitative descriptive research design has an advantage as it can acquire a lot of information through description (Polit & Beck 2017). Exploratory research is defined by Gray and Grove (2020) as research conducted to gain new insights, discover new ideas and to increase knowledge of the

phenomenon. In this study, the researcher interacted with participants to understand and explored their perceptions of HIV risk. Rich data was generated from their perceptions. The exploratory and descriptive design respectively assisted the researcher to understand the students' perception of HIV risk better including gaining insight that increased knowledge related to HIV and AIDS.

3.4 STUDY SETTING

The study setting is the actual place and conditions or circumstances where and within which the research study takes place (Polit & Beck 2017). The study was conducted in Botswana at IDM, a training college for preservice students in Gaborone Campus. The campus is located in the capital city of Botswana in the southern part of the country and falls under the Greater Gaborone District Health Management Team. IDM was established in 1974 as an autonomous regional organisation in Botswana, Lesotho and Swaziland (BLS) to help meet the management needs of the region through management development activities, including training, consultancy, research and the establishment of a Management Resource Centre (Badisa 2018). Initially, it was an in-service institution. Later in the nineties, it introduced mainstream programmes to cater for the ever growing Botswana's human resource and health care needs. The majority of students that enrol at the institute are young people of age 18 years and above, who have just completed their high school. Maps of the study site are shown below as Figure 3.1 and 3.2.



Figure 3.1 Map of Botswana showing Gaborone

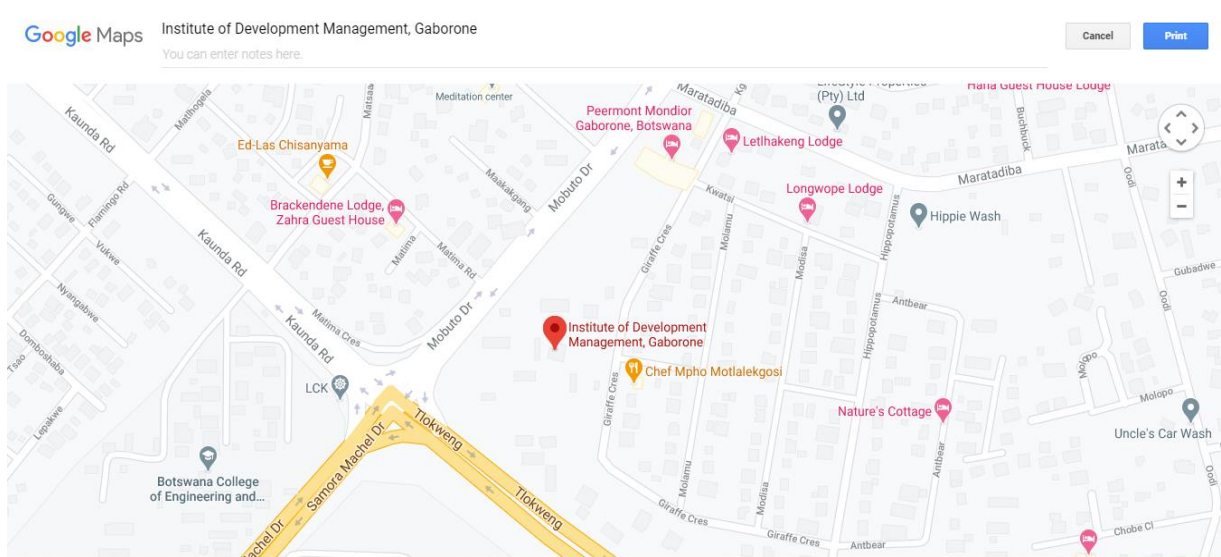


Figure 3.2 Map of Greater Gaborone District showing Institute of Development Management- Gaborone, Botswana Campus.

3.5 POPULATION

According to Polit and Beck (2017), population is the entire set of individuals or subjects with some common characteristics. Furthermore, Tracy (2013) describes the population as the entire aggregation of participants that meet the designated set of criteria. The population of this study were Public Health students of IDM Gaborone enrolled in Public Health programme with an age range of 18- 30 years, male and female. The Institute of Development Management (2018) stipulates that all first year students are provided with accommodation in the campus. When they go into the second year of study, they become off-campus students where they seek their own accommodation. This is the time when the students are not under the care, support and supervision of parents, including the residence matron. Therefore, for this study, the population of interest was Public Health students who have moved away from the support, supervision and guidance of their parents, and from rural areas into a city where they might be faced with peer pressure, cultural shock and of course, the need to belong. These are young people from diverse backgrounds in terms of culture, ethnicity, and social and economic status. They also come from different settings in Botswana such as settlements, rural villages, towns and cities, and are studying Public Health, which is a four-year degree. It is for these reasons

that the researcher targeted this group to get their views. In 2019 the total number of IDM Public Health students was 250 (Institute of Development Management 2019).

3.6 SAMPLING

According to Gentles, Charles, Ploeg and McKibbin (2015), sampling is the act, process, or procedure whereby the researcher chooses participants from the component of the population with the intention to determine parameters or characteristics of the whole population. In this study, purposive sampling was used to select second year Public Health students. Purposive sampling is a non-probability sampling method in which the researcher selects participants based on personal judgement about which ones will be most informative (Polit & Beck 2017). Purposive sampling avails accessible participants, but provides the additional advantage of facilitating the selection of participants whose qualities or experiences are required in the study. Purposeful sampling is a technique widely used in qualitative research for the identification and selection of information-rich cases in the most effective use of limited resources. This involves identifying and selecting individuals or groups of individuals that are especially knowledgeable about or experienced with a phenomenon of interest (Cresswell 2014). In addition to knowledge and experience, the importance of availability and willingness to participate, and the ability to communicate their perceptions and opinions in an articulate, expressive and reflective manner is important in this study. Therefore, in this study the researcher's choice of the purposive sampling was to identify participants with the sole purpose of obtaining rich and thick data to answer the research questions and to achieve the aim of the study. A notice and a meeting were used to invite second year Public Health students to participate in the study. The researcher explained the details of the study and sought consent, and those that consented were given a time slot for interviews.

According to Fusch and Ness (2015), data saturation is reached when enough information is collected and no new information will be revealed should the interview continue. Data saturation is a tool or standard used in qualitative study to ensure that enough and quality data are collected to support the study (Glanz, Rimer & Viswanath 2016). According to Polit and Beck (2017), the researcher can select respondents according to the needs of

the study. In this study, the researcher chose second year Public Health students as participants. The participants provided rich information that is suitable for the study.

The goal of qualitative study is to uncover a variety of opinions and the sample size is always limited to the point of saturation. In qualitative studies, determining the ideal sample size can prove to be tricky as the researcher cannot know in advance. According to Lune and Berg (2017), the sample size in qualitative study is usually relatively small, but at the same time, a large sample size risks having repetitive data that does not result in obtaining additional perspectives or information. Therefore, in this study, the researcher's determination of the sample size was contextual and limited to the point where during a series of interviews there are few or no new ideas realised.

3.6.1 Inclusion criteria

According to Kothari and Garg (2014), inclusion criteria are the characteristics that the prospective participants must have if they are to be included in the study. Therefore, participation in this study was eligible to;

- All students (both females and males) registered in IDM Gaborone.
- Enrolled in the Public Health programme.
- Only second year Public Health students were to participate in the study due to the large population of Public Health students; the researcher cannot handle all of them due to resources constraints.

3.6.2 Exclusion criteria

Kothari et al (2014) defines exclusion criteria as characteristics that a participant may possess that could adversely affect the accuracy of the results.

- For this study, students who were under the age of eighteen were excluded due to limited time of the study, and having to seek consent from parents or guardians was challenging.
- All students other than second years.

3.7. DATA COLLECTION

Data collection is the gathering of information to address a research problem. In this study, semi-structured individual interviews were used as a method of gathering information. According to LoBiondo-Wood and Haber (2014), a semi-structured interview is a qualitative method of inquiry that combines a pre-determined set of open questions which allow focused, conversational two-way communication and possible questions based on responses from the participant. Furthermore, in semi-structured interviews, additional questions might be asked to clarify and/or further expand certain issues (Leavy 2017). It is advantageous to use this method as it allows participants freedom of expression of own views as it consists of open-ended questions, and gives reliable and comparable qualitative data (Fusch et al 2015). In this study, interviews lasted approximately 30 – 50 minutes where all participants were asked one main question. Probing was done depending on the participant's responses. By the end of the process, there were large amount of narrative data that described the perceptions of HIV risk infection of participants.

Data was gathered using a semi-structured interview guide (attached as Appendix 1), which was made up of one main question and several possible follow up questions. The main question read as follows: 'Tell me about your views on your own risk to HIV'. The guide also collected demographic data from participants. The researcher used a voice recorder to record the interviews. She also took field notes. Interviews were conducted at a place convenient for participants.

3.8. DATA ANALYSIS

According to Paul, Rajivs and I-Chant (2015), data analysis is a systematic method of examining data gathered for any research investigation to support conclusions or interpretations about data. In this study, thematic content analysis was used to analyse the qualitative data, which was grouped according to the emerging thematic areas. The process of data analysis and interpretation helped the researcher to answer the question relating to the meaning of data. Thematic content analysis is a technique that is commonly used in qualitative research and focuses on structuring particular topics or domains of

interest from unstructured data (Bernard 2014). It is a time-consuming process that involves organising, identifying, coding and making categories from patterns of data that are reflective of the topics (Neuman 2014).

- Organising in data analysis involves transcribing interviews, optically scanning material, typing up field notes, cataloguing all of the visual material, and sorting and arranging the data into different types depending on the sources of information (Neuman 2014). In this study, information derived from interviews was sorted out and arranged as part of data for analysis. This was followed by the repeated and careful reading of verbatim transcripts while making notes at the margins. The data was organised in a repository for easy access, with backups for all files because qualitative research produces a wealth of data, which was sorted as a part of the organisational process.
- Identifying and coding - Coding is the process of assigning a word or phrase to segments of data and the code selected should summarise or capture the essence of that segment of data (Saldana 2015). The process of coding involves aggregating the data into small categories of information, seeking evidence for the code from different data being used in a study, and then assigning a label to the code (Neuman 2014). The researcher classified the data generated by assigning labels to words or phrases that represented important and recurring themes in each response in the process of coding, leading to categories.
- Making categories - the researcher coded the data because it was important to look for patterns and relationships between codes. This required the process of categorising, which can be described as the process of grouping similar or seemingly related codes together (Saldana 2015). According to Neuman (2014), a category is a collection of similar data sorted into the same place. Such arrangement enables the researchers to identify and describe the characteristics of the category. The researcher in the current study categorised the data into emerging themes and generated a small number of themes, specifically two to five themes for the research study. These themes are the ones that appeared as major findings with a rich and exhaustive description of the perception of HIV risk infection.

3.9. TRUSTWORTHINESS

In qualitative research, researchers are concerned with enhancing trustworthiness, which refers to ensuring that the research study is worth paying attention to and that the findings are to be trusted (Polit & Beck 2017). To ensure the trustworthiness of the study, the researcher employed strategies developed by Lincon and Guba (Nowell, Morris, White & Moules 2017), namely; credibility, confirmability, transferability and dependability.

3.9.1 Credibility

Credibility is defined as the confidence that can be placed in the truth of the research findings, and it addresses the fit between participants' views and the researcher's representation of them (Nowell et al 2017). Credibility establishes whether or not the research findings represent plausible information drawn from the participant's original data, and is a correct interpretation of their original views (Creswell 2014). In this study, the researcher decreased threats to credibility by prolonging the interviews with participants during data collection to build rapport. This allowed participants to gain trust. The researcher was able to obtain and discover the perceptions of risk of HIV infection of participants.

3.9.2 Confirmability

According to Nowell et al (2017), confirmability refers to the degree to which the research findings reflect the voice of participants. It is concerned with establishing that data and interpretations of findings are not figments of the researcher's imagination, but are derived from the data (Neuman 2014). To increase confirmability in the study, the researcher constantly compared data by going back to the recordings and field notes for cross-checking and validation of captured data, and by searching the literature for multiple viewpoints, checking and rechecking data during data analysis. This was done to increase level of confidence that the study's findings are based on the participants' narratives rather than the researcher's biases.

3.9.3 Transferability

Transferability refers to whether the findings of a qualitative study can be transferred to another similar context or situation (Nowell et al 2017). Transferability of findings rests with potential users and not with the researcher (Polit & Beck 2017). Therefore, in this study, the researcher provided a detailed description of the study process and how the study participants were selected so that other researchers can evaluate the transferability of data to other settings, and may provide a base for further research.

3.9.4 Dependability

Dependability refers to the stability of findings over time and can be achieved when the researcher ensured that the research process is logical, traceable and clearly documented. This will assist the researcher in reporting findings (Nowell et al 2017). To increase dependability in the study, the researcher described in detail how data was collected, organised and coded, and how categories were derived throughout the study. Furthermore, all documents are kept for cross-checking. For example, field notes and recordings collected during interviews.

3.10 Bias

Bias is an influence that produces a distortion or error in the study results (Polit & Beck 2017). Understanding research bias is important for several reasons because it exists in all research, across research designs and is difficult to eliminate totally. Secondly, bias can occur at each stage of the research process and can impact on the study findings. There are different types of bias, namely, selection, participant and researcher bias, which are likely to occur in this study.

- Selection or sample bias is where research samples can sometimes underrepresent certain people or groups, and overrepresent others (Creswell & Creswell 2017). The best way to select people for research is using the basis of chance, in other words, so that everyone in the population being studied has an equal chance of being selected using random sampling. In this study, the researcher used purposive sampling, whose main goal is to focus on particular characteristics of population that are of interest, which enabled the researcher to

answer the research questions. Although purposive sampling may introduce unavoidable bias of potential influence in the selection of participants, the intention of using it in this study was to establish trustworthiness. Furthermore, purposive sampling is consistent with the objectives of the study. In a qualitative study, the sample is not meant to be representative of the population but the researcher certainly wants to make sure that participants meet the characteristics of the targeted population.

- Participant bias occurs when the participant chooses to agree with the researcher or when one responds inaccurately so that they could be liked or think that they would be better accepted, especially in cases of sensitive questions (Polit & Beck 2017). In this study, the method of data collection was interview, hence there was a possibility of participant bias due to the presence of the researcher. The researcher framed open-ended questions to prevent participants from simply agreeing or disagreeing, and guided them to provide truthful and honest answers. Again, the phrasing of the questions was in a manner that allows the participant to feel accepted no matter what the answer was. Furthermore, the researcher informed participants to be free to voice out their views. The researcher did not introduce her own bias by being objective and focusing on the stated questions.
- According to Gournelos, Hammonds and Wilson (2019), researcher or confirmation bias may occur when the researcher distorts inferences in the direction of their expectations or in line with their own experiences. In this study, the researcher minimised confirmation bias by continually re-evaluating impressions of participants and challenging pre-existing assumptions. Furthermore, the researcher analysed all the data collected as it was, even if it did not seem useful. The data was not changed to suit the researcher's point of view.

3.11. ETHICAL CONSIDERATIONS

The researcher adhered to the ethical and moral standards of dealing with human participants.

3.11.1 Permission to conduct the study

Ethical clearance was sought and obtained from the University of Limpopo Turfloop Research Ethics Committee (TREC). An ethical clearance certificate is attached as Appendix 2. Permission to conduct the study was sought from the Ministry of Health and Wellness (MOHW) in the Department of Health and Research, and the letter of request is attached as Appendix 3. A letter from MOHW granting permission to conduct the study was obtained and attached as Appendix 4. Furthermore, permission to collect data from participants was requested from IDM and is attached as Appendix 5, and a letter granting permission to collect data from IDM is attached as Appendix 6.

3.11.2 Anonymity and confidentiality

Anonymity and confidentiality refers to protection of the study participants so that information is never publicly divulged, and the researcher cannot link individuals to the information provided (Clark & Ivankova 2015). In this study, participants were informed that the study would respect their confidentiality as well as their anonymity. Therefore, anonymity and privacy were maintained by omitting the names of participants as they were given numbers as their identity. The participant's true identity and information remained confidential. Protection of participants' rights included the right to privacy, right to autonomy and confidentiality and the right to fair treatment.

3.11.3 Protection from harm or risk

The right to protection from discomfort and harm or risk in this study was minimal and involved emotional risk to participants. Emotional risk can be associated with a study if the interview involves a sensitive research topic that can trigger an unwanted emotional response. HIV is a sensitive issue (Taylor, Bogdan & DeVault 2016). Therefore, the researcher was alert to both verbal and nonverbal signs of potentially harmful emotions and ensured that the discussion of sensitive issues is kept at an appropriate level. Furthermore, the researcher ensured that counselling services at student welfare office are available to participants when needed.

3.11.4 Informed consent

The researcher explained the purpose and benefits of the study to participants. They were also informed that there would be no punishment to withdraw from participating in the study at any point in time. The study participants were requested to give an informed written consent. Those who agreed to participate were asked to sign a consent form, which is attached as Appendix 7.

3.12 CONCLUSION

This chapter explained the methodology used in this study, which included research methodology, research design, population, sampling, data collection, data analysis, measures of trustworthiness as well as ethical consideration. Chapter 4 will discuss the research findings and literature control.

CHAPTER 4

FINDINGS AND LITERATURE CONTROL

4.1 INTRODUCTION

The previous chapter discussed the research methodology, which encompassed the research design, research setting, study population, sampling, data collection, data analysis, measures to ensure trustworthiness and ethical considerations. This chapter discusses in detail the findings and literature control to support the findings of the study.

4.2 DEMOGRAPHIC DATA OF PARTICIPANTS

The study sample comprised of eight second year students of Public Health from the IDM who were selected through the purposive sampling process as discussed in the previous chapter and agreed to participate in the study. The sample comprised five females and three males between the ages of 20 and 28 who were all single. All participants stayed alone outside the IDM campus. The eight participants were interviewed through the semi-structured interview, where they gave their views on their risk of HIV infection.

4.3 THEMES AND SUB-THEMES

Outlined below are themes and sub-themes that emerged from the data analysis, and are discussed using recent literature. The results of this study yielded four main themes and twelve sub-themes, and are summarised in Table 4.1

Table 4.1 Themes and sub-themes

THEMES	SUB-THEMES
1. Risk perception of HIV infection	1.1 Not at risk of HIV infection 1.2 At risk of HIV infection
2. Risk factors for HIV infection	2.1 Multiple sexual partners 2.2 Abuse of alcohol and drugs. 2.3 Transactional sex 2.4 Freedom or detachment from parents or guardians 2.5 Inconsistent use of condoms 2.6 Fear of testing for HIV
3. Fear of HIV infection	3.1 Young people fear pregnancy.

	3.2 Availability of ART leads to less fear of HIV infection
4. Disclosure of HIV positive status	4.1 Disclosure of HIV positive status is difficult 4.2 HIV related stigma and discrimination exists

4.3.1 Theme 1: Risk perception of HIV infection

The current study reveals that some participants perceive themselves to be at risk of contracting HIV, while others perceive themselves as being not at risk of HIV infection. This theme connects to the Health Belief Model’s (HBM) constructs of perceived susceptibility, which means one’s opinion of chances of getting a condition (Snelling 2014). In the current study, some participants perceive themselves to be at risk of HIV infection while others do not perceive themselves to be at risk. Therefore, a person’s perception that a health problem is personally relevant will contribute to taking the required action to prevent the health problem. In this case, participants who perceive themselves to be susceptible to HIV infection would more likely use preventive measures to protect themselves. At the same time, participants who do not perceive themselves to be at risk are unlikely to take preventive action against HIV and AIDS, hence putting themselves at risk of HIV infection. The following sub-themes emerged under this theme.

4.3.1.1 Subtheme 1.1: At risk of HIV infection

The current study shows that some participants are concerned about being at risk of HIV infection.

Participant 02 said; *‘I think I am at risk, the reasons being that I am sexually active’*.

Participant 03 added: *‘Even us here at school we are at risk because we engage in activities that can put one in danger of getting HIV infection.’*

Participant 05 supported: *‘Oh yes I do, I do consider myself to be at risk to HIV aah because of the lifestyles that we live and the risky behaviours that we find ourselves in’*.

The second concept of the HBM is perceived severity, which refers to one’s beliefs of how serious a condition and its consequences are (Snelling 2014). This means that for students to take preventive measures of HIV, they must believe that the consequences of contracting HIV will be severe. In the current study, some participants are concerned about being at risk of HIV infection. When students realise and understand that getting

HIV infection will have serious physical and social implications or negative consequences, then the students will take the necessary actions to avoid the negative consequences.

4.3.1.2 Subtheme 1.2: Not at risk of HIV infection

Some participants believe that they are not at risk of contracting HIV because they are aware of the preventive measures to HIV, and they use these measures to prevent the risk of HIV infection.

Participant 01 said: *'I am not at risk of HIV as I am aware of the HIV preventive measure'*. Participant 07 added: *'Oh okay, no I don't, because mmh mmh all the time I have sex I use protection and I also have one partner, I don't have many partners, so I am not at risk'*.

Participant 08 supported: *'No, I don't consider myself as one of the students who are at risk of HIV'*.

Perceptions of risk may be a strong motivating factor for behavioural change, particularly if the individual perceives themselves to be at risk. But in this study, some participants do not perceive themselves to be at risk because they said they are aware of the HIV preventive measures. Nubed and Akoachere (2016) reveal that participants demonstrated an adequate understanding of HIV transmission, prevention and control measures. This supports the findings of the current study as some participants did not perceive themselves at risk of HIV infection as they are aware of the preventive measures of HIV. According to the World Health Organization (2019), over 30% of all new HIV infections globally are estimated to occur among youth ages 15 to 25 years, an age group of interest for colleges and universities.

4.3.2 Theme 2: Risk factors of HIV infection

This study shows that there are multiple factors that are considered as risk factors according to participants. The following four subthemes emerged and are discussed as follows.

4.3.2.1 Subtheme 2.1: Multiple sexual partners

Multiple sexual partner relationships are believed to be some of the key drivers of the HIV and AIDS pandemic (Joint United Nations Programme on HIV and AIDS 2019). In the current study, some participants' perception is that multiple sexual partner relationships are common among students.

Participant 03 reported: *'At times I will be faithful but my partner might not be faithful and that can put me at high risk as she will be having multiple sexual partners'*

Participant 04 supported: *'there is actually a lot for example having a partner who is at high risk or already has HIV and having multiple sexual partners'*.

Participant 06 added: *'there are other risk factors apart from people living with HIV for example, having multiple sexual partners, use of drugs and alcohol, because these older men may be dating or having sex with other people, their age mates at the same time, some are even married, so one is in a web of multiple sexual partners'*.

A study by Manjengwa, Mangold, Musekiwa and Kuonza (2019) reports that there are risks associated with having multiple sexual partners, contracting HIV and other STIs, and the spreading of HIV to other multiple sexual partners after having contracted it. Furthermore, multiple sexual partners are prevalent among participants who engaged in intergenerational sex (Manjengwa et al 2019). In the current study, some participants are aware of the risk associated with having multiple sexual partnerships as their views are that they may be faithful, while their partners are not faithful, which is a risk factor to HIV infection. Some participants said intergenerational relationships are common among students, where older people date or have sexual relationships with students and at the same time having other partners or even married. According to Manjengwa et al (2019), socio-economic and cultural factors are influencing these multiple sexual partnerships.

4.3.2.2 Subtheme 2.2: Abuse of alcohol and drugs

Substance use can lead to risky behaviours that increase the chance of getting HIV infection, or passing it onto others. The risky behaviours include having sex without a condom, sharing needles and multiple sexual partners (Joint United Nations Programme

on HIV and AIDS 2019). Some participants' perception in the current study is that alcohol and drug abuse is one the risk factors for HIV infection as some of the students use alcohol and drugs, and may lack objectivity in negotiating safer sex.

Participant 01 said: *'Students use or abuse substances and this can put people at risk of HIV, one may forget a condom, one may be used because they are drunk or high'*.

Participant 02 supported: *'Students nowadays really abuse alcohol and drugs and this is a risky behaviour that put them at risk of sexually transmitted infections, including HIV as when one indulged in substance abuse, they may lack objectivity in negotiating safer sex, unlike maybe when they are sober'*.

Participant 08 added: *'Maybe where they are under the influence of alcohol and drugs and their judgement is affected.'*

Harris (2019) reports that some participants indicated that being under the influence of alcohol and drugs inhibited them from communicating about their sexual history and testing procedures for HIV. Furthermore, a study by Saffier, Kawa and Harling (2017) reveals that several behaviours were reported as predictors of HIV infection. For example, the use of illicit drugs was consistently associated with increased HIV risk. Another study by Aluzimbi, Lubwama, Muyonga and Hladik (2017) reports that students' behaviours may be influenced by peers and facilitated by alcohol to engage in unprotected transactional sex.

4.3.2.3 Subtheme 2.3: Transactional sex

According to the Joint United Nations Programme on HIV and AIDS (2019), transactional sex has been defined as engagement in sexual activity in exchange for material gifts, whereby sex is exchanged for material possessions, money and or favours. Transactional sex and age disparate sexual relationships are drivers of HIV in the Sub-Saharan region of Africa (Joint United Nations Programme on HIV and AIDS 2019). In the current study, some participants' view is that transactional sex is one of the risk factors to HIV. Students engage in sexual relationships with older men where these men give them money or other gifts in exchange for sexual favours. The exchange for money is seen as an important

factor by students as they deem the student allowance from their sponsors not enough for their upkeep.

Participant 02 reported: *'Things are expensive, prices are going up every day and hence at times we find young people engaging in multiple sex partners for survival'*.

Participant 03 supported: *'Sugar daddies or mummies who can provide more than we students can provide financially and this will lead to partners cheating because they want money'*.

Participant 07 supported: *'They are always concerned about what they going to do to have money to go out and money for drinks or alcohol and they will do anything to get the money for the lifestyle they want irrespective of what happens'*.

Choudhry, Ambresin, Nyakato and Agardh (2015) reveal that some of the men reported paying for sex, while some of the women reported having received gifts, favours, or money in exchange for sex. In the same study, young men who reported paying for sex belonged to the age group 20 – 24, which is the age group in tertiary institutions. Another study by Duby, Jonas, Appollis, Maruping, Vanleeuw, Kuo and Mathews (2021) reveals that some participants have engaged in transactional sex with someone with the expectation of receiving money or goods. Furthermore, it was reported that transactional sex is associated with a number of HIV risk factors, including gender-based violence, substance abuse, alcohol use, multiple partners, not using condoms and age-disparate sex (Duby et al 2021). In the current study, some participants' views are that students have sexual relationships with sugar daddies or mummies who can provide financially for them.

4.3.2.4 Subtheme 2.4: Freedom or detachment from parents or guardians

The current study reveals that freedom or detachment from parents or guardians contributes to students engaging in risky behaviours and the risk of HIV infection. Faimau et al (2016) report that students move away from the support, supervision and guidance of their parents, and from rural areas into towns and cities where they are faced with peer

pressure, cultural shock and the need to belong as they start the new life in tertiary institutions.

Participant 01 said: *'Freedom, ijoo freedom, not staying with parents, where one has freedom to do what they want to do can lead one to end up engaging in risky sexual behaviours that could lead to HIV infection'*.

Participant 02 reported: *'Young people lack discipline in general, because being away from parents calls for self-discipline, but it looks like we are failing on that aspect, young people we have more chance and time to get into multiple relationships unlike when under parental care'*.

Participants 05 supported: *'Yes because that's where we get the freedom to do anything we want without any guidance from any parental figure'*.

In most cases, when young people go into tertiary institutions, most of them leave their parents and guardians for the first time. In the current study, some participants' views are that freedom or detachment from parents contributes to risky behaviours as students are on their own and have to make their own decisions. The transition from childhood to adulthood is also a time for exploring and navigating peer relationships, gender norms, sexuality and economic responsibility (Faimau et al 2016). In the current study, some participants' perception is that students have more chance and time to get into multiple relationships unlike when under parental care. Dimbuene (2015) reports that parental influence on the sexual behaviour of students indicates that parental communication, monitoring and connectedness contribute to the avoidance of risky sexual behaviour of students. The influence, power and control that many adults have on the lives of young people means that engaging various stakeholders such as parents, health providers and community leaders is key to HIV prevention for young people.

4.3.2.5 Subtheme 2.5: Inconsistent use of condoms

Some participants reveal that they are aware of the importance of condom use, but sometimes it is not possible to be consistent with condom use for various reasons. Joint United Nations Programme on HIV and AIDS (2019) reports that condom use among

sexually active young people is declining. This has taken the world far off from the 90% target for condom use.

Participant 02 reported: *'At times one may relax and not use a condom.'*

Participant 03 added: *'There are times when one can forget and not use a condom and that can put one in danger, at times both of us don't have a condom.'*

Participant 04 supported: *'Ok there are times where one can get carried away and forget to use condom, also asking for condom usage in a long-term relationship is seen as a lack of trust'.*

Participant 08 supported: *'I guess just to explore what it is like to have sex without a condom'.*

According to Kanda and Mash (2018), some of the obstacles to consistent condom use are that sometimes they lost control while sexually aroused and forget to use a condom. In the current study, some participants reveal that there are times where one can get carried away and forget to use a condom. This has been advanced as some of the challenges in consistent condoms use, though one of the preventive measures to HIV infection is the use of condoms. Warren, Paterson, Schulz, Lees, Eakle, Stadler and Larson (2018) report that as relationships became more committed, continued use of a condom becomes difficult to maintain as one may use condoms when they have sexual contact with a lover for the first time, but later on, people tend to stop using condoms because of trust issues.

4.3.2.6 Subtheme 2.6: Fear of testing for HIV

This theme is in line with two of the constructs of HBM, namely, perceived benefits and perceived barriers. According to Glanz et al (2015), perceived benefits is the belief of a person regarding the usefulness of the methods suggested for reducing risk, the seriousness of the disease or harmful state resulting from a particular behaviour. The current study shows that some participants are aware of the benefits of HIV testing. For example, enrolling into ART. Perceived barriers is defined as the belief of a person regarding actual and imagined costs of performing the new behaviour (Glanz et al 2015).

In the current study, the students understand the benefits of HIV testing though they have shared various reasons, including fear for not testing for HIV.

Participant 01 said: *'Knowing your status or doing an HIV test is important because then one will keep preventing if he/she is HIV negative and even if one is HIV positive, enrolling for ART minimise further infections and progression of the disease, but heish the problem is that fear of HIV testing, people often don't test or put off testing'*.

Participant 02 supported: *'On the issue of HIV testing or knowing a partner status, it is important as a way of minimising the risk of HIV, aah couple testing is not possible, not easy to do'*.

Participant 03 added: *'So yes HIV testing is important but not easy to do'*.

Participant 06 added: *'Most of the time students will gather in other areas and for HIV testing very few people go there. Even for me I have never tested, I'm afraid', but I know testing is important.*

Participant 08 supported: *'Most of the students are afraid of going for HIV testing because they think some of the students will start to judge and all the staff'*.

Some participants are aware of the benefits of HIV testing. For example, if one is HIV negative, one will keep preventing; and if one is HIV positive, enrolling for ART minimises further infections and progression of the disease. Some participants reveal fear as a reason for not testing for HIV. Hence, some have never tested for HIV. Vagenas, Ludford, Gonzales, Peinado, Cabezas, Gonzales, Lama, Sanchez and Altice (2014) report that being unaware or not testing for HIV is associated with high-risk sexual behaviours as it may increase the likelihood that infected individuals can transmit HIV. In line with one of the constructs of HBM, namely, the likelihood of action, testing for HIV will occur if the perceived benefits outweigh the perceived barriers. Therefore, the likelihood of adopting a preventive behaviour of HIV testing against the perceived barrier which is fear of testing in the current study is not a motivating factor for students to test for HIV.

4.3.3 Theme 3: Fear of HIV infection

The current study reveals that students do not fear HIV infection for various reasons. They reported that HIV infection can be managed.

4.3.3.1 Subtheme 3.1: Students fear pregnancy.

Harris (2019) reports that pregnancy is perceived as a threat over the deadly HIV infection. The current study reveals that students are not concerned about contracting HIV infection because it can be controlled by enrolling into ART, and that they have not witnessed people dying due to HIV infection. Instead they are more concerned about pregnancy.

Participant 04 reported: *'I guess maybe it's the issue of less of fear of contracting HIV infection as it can now be controlled with medication, but the major concern is pregnancy. So condom is used mostly to prevent pregnancy and most of the time due to fear of pregnancy'*.

Participant 07 supported: *'Yes in most cases young people are never concerned about their health, they worry about being pregnant, my view is that we do not fear HIV infection maybe it's because we do not really see people dying, but pregnancy is a challenge.'*

Participant 08 added: *'In most cases young people use condoms to prevent pregnancy, young people fear pregnancy.'*

In the current study, some participants report that they have not witnessed people dying due to HIV and AIDS. This can be associated with one of the components of HBM, which are modifying factors, which include demographic, socio-psychological and structural variables (Glanz et al 2015). The modifying factors may influence an individual's perceptions and thus indirectly influence health-related behaviours of people. In the current study, the issue of not witnessing people dying due to HIV and AIDS is a modifying factor from the social aspect. Hence, there is less fear of HIV infection. In recent years, due to the introduction of ART, mortality rates have declined significantly. Hence, unlike before, some students have not witnessed people dying due to HIV and AIDS. According to the World Health Organization (2019), HIV and AIDS related deaths have decreased

from 18,000 recorded in 2002 to 4,800 in 2018 in Botswana. Furthermore, in the current study, some participants are more concerned about pregnancy than HIV and AIDS. Pregnancy among students remains a challenge in terms of academic success, failure to write examinations, lack of maternity benefits as well as lack of support, including financial support from the partner and family. In most cases, pregnancy is unplanned or unwanted. This could result in shame, withdrawal from the society, suicidal attempts, child neglect and abandonment. A study by Zizza, Guido, Recchia, Grima, Banchelli and Tinelli (2021) indicate that pregnancy is considered the riskiest consequence of unprotected sex. These findings are supported by Aluzimbi et al (2017), that female high school students' fear is greater with regard to getting pregnant than acquiring HIV infection.

4.3.3.2 Subtheme 3.2: Availability of Antiretroviral Therapy leads to less fear of HIV infection.

The current study shows that some participants understand that ART is available and reduces chances of opportunistic infections.

Participant 03 said: *'The good thing is that there is ART and though not a cure but it suppress the viral load and limit opportunistic infections and if one adheres to the ART there is a high chance of living a normal life'*.

Participant 07 added: *'Due to ART, the health effects are addressed and one can live a normal life like any other person'*.

As ART becomes increasingly available, affordable and accessible, it brings undeniable benefits to the people in many countries (World Health Organization 2019). Some participants in the current study expressed the importance of ART that people accessing treatment are enjoying improved health, hence living a normal life. This is in line with two of the constructs of HBM, namely, perceived benefits and self-efficacy (Snelling 2014). Perceived benefit is the belief of a person regarding the usefulness of the methods suggested for reducing risk or seriousness of the disease or harmful state resulting from a particular behaviour (Sneilling 2014). In the current study, some participants' view is that ART is useful in reducing the effects of opportunistic infection, which is a benefit to a

person living with HIV. The action of enrolling for ART means the participants' belief or confidence in performing a behaviour, which is self-efficacy.

4.3.4 Theme 4: Disclosure of HIV positive status

In the current study, some participants view disclosure of the HIV positive status as difficult to do. It brings about a lot of dilemma in people's lives. Disclosure is defined as the process of revealing HIV positive status to sexual partner(s), family members, or others in their social circles (Dessalegn, Hailemichael, Shewa-amare, Sawleshwarkar, Lodebo, Amberbir and Hillman 2019). Disclosure has the potential to play a significant role in both HIV prevention by reducing onward transmission and management by facilitating greater social support and increased adherence.

4.3.4.1 Subtheme 4.1: Disclosure of HIV positive status is difficult

The current study shows that disclosure of HIV positive status is difficult. Participants are of the view that they are better off to deal with the illness alone because of fear of unforeseen circumstances. Disclosure to their family and partner is not yet their solution for the support system that they need.

Participant 03 reported: *'It is not easy, imagine if one has to disclose their status to a partner or family members, it is too much to deal with like I have said already'*.

Participant 06 added: *'Disclosing your HIV status is difficult and will have an effect on you and the people you tell'*.

Participant 07 supported: *'Disclosing ones HIV positive status is difficult, but I think it is more difficult when you are born with it'*.

In the current study, some participants view disclosure of the HIV positive status as difficult or challenging. This theme is in line with one of the constructs of HBM, namely, perceived barriers. According to Glanz et al (2015), perceived barriers is described as the belief of a person regarding actual and imagined costs of performing the new behaviour. In the current study, some participants report various reasons which make disclosure of the HIV positive status difficult. For example, fear of whether one will get support from a

partner or family members in the event that one discloses their HIV positive status. Madiba and Mokgatle (2016) report that participants considered their HIV positive status a secret and did not feel a need to disclose. Furthermore, Kimera, Vindevogel, Reynaert, Justice, Rubaihayo, De Maeyer, Engelen, Musanje and Bilsen (2020) report that fear of gossiping, ridiculing, teasing and losing of friendship leads to young people living with HIV and AIDS to conceal their status from family members, teachers and peers, which in turn leads to isolation and depression. Chirambo, Valeta, Kamanga and Nyondo-Mipando (2019) support the findings of the current study where fear of disclosure of one's HIV positive status was the most common reason even for defaulting from ART.

4.3.4.2 Subtheme 4.2: HIV related stigma and discrimination exist

The current study reveals that some participants conceal their HIV positive status to their immediate family members and partners due to fear of how they will react, and that there is a high chance of negative response, stigma and discrimination.

Participant 03 said: *'Once one is HIV positive their life changes, you fear to disclose your status to sexual partner and family members for fear of rejection'*.

Participant 05 supported: *'Someone with HIV, they get stigmatised, there is a lot of stigma and discrimination that one experience'*.

Participant 06 supported: *'At the same time there are also several potential negative consequences associated with HIV disclosure for example domestic violence and abuse, abandonment, and discrimination, which can serve as viable reasons for nondisclosure'*.

Another construct of HBM that is in line with this theme is cues to action. According to Glanz et al (2015), cues to action are personal, interpersonal or environmental events or experiences that motivate a person to take action, or precipitate force that makes the person feels the need to take action. In the current study, some participants report that due to stigma, discrimination, lack of support from partners and family members, young people did not feel the need to disclose their HIV positive status. Madiba et al (2016) reveal that fear of being gossiped about and stigmatised is an important consideration for keeping the HIV status secret. Kimera et al (2020) report that both voluntary and involuntary disclosure of status are highly feared due to the threat of HIV-related stigma.

Consequently, many young people feel that they have to live with a secret and are always on guard to maintain secrecy. Manjengwa et al (2019) report that HIV and AIDS is a highly stigmatised condition. Some participants do not want their relatives or partner to know their HIV positive status for fear of being stigmatised. This supports the views expressed in the current study that disclosure of the HIV positive status to sexual partners and family members may lead to rejection, domestic violence, abuse, abandonment and discrimination, all of which are viable reasons for nondisclosure.

4.4 CONCLUSION

This chapter discussed the research findings and literature control. These findings were categorised according to the main themes and sub-themes, namely; risk perception of HIV infection, risk factors for HIV infection, fear of HIV infection and disclosure of HIV positive status. This chapter will give way to Chapter 5, which will discuss the summary, conclusions, strengths, limitations and recommendations of the study.

CHAPTER 5

SUMMARY, RECOMMENDATIONS, STRENGTHS, LIMITATIONS AND CONCLUSION

5.1 INTRODUCTION

The previous chapter focused on the research findings and literature control. Four main themes and twelve sub-themes were extracted from the findings of the study, and were discussed in the previous chapter. The theme includes risk perception of HIV infection, risk factors for HIV infection, fear of HIV infection and disclosure of HIV positive status. This chapter focuses on the summary of the study, conclusion, strengths, limitations of the study and recommendations.

5.2 RESEARCH DESIGN AND METHODOLOGY

The study used a qualitative, exploratory, descriptive design to explore and describe HIV risk perceptions of IDM students, and assisted in understanding the students' views. Semi-structured interviews were used to collect data and thematic content analysis was used to analyse the data and to extract the themes and sub-themes. The process of data analysis and interpretation helped the researcher to answer the research question: 'what is the perception of risk of HIV infection among students at the Institute of Development Management, Gaborone, Botswana Campus?'

The aim of this study was to determine HIV risk perceptions among students at the Institute of Development Management, Botswana Campus, and the objectives were as follows:

- To explore perceptions of HIV risks among students at the Institute of Development Management, Botswana Campus.
- To describe perceptions of HIV risks among students in the Institute of Development Management, Botswana Campus.

The objective of exploring perceptions of HIV risks among IDM students was met. The researcher asked the main question and probing questions in order to address the first objective. Students were able to answer the main question and the probing questions. To meet the objective of describing perceptions of HIV risks among IDM students, the students were able to describe their perceptions in the findings, themes and sub-themes as indicated in Chapter 4. The study generated four themes and 12 sub-themes from the data. Furthermore, literature control was used to discuss the themes and sub-themes that emerged. Among the views expressed by some participants was that they are susceptible to HIV infection, and there are a number of risk factors associated with HIV infection. They also expressed their fears in relation to HIV testing, pregnancy and disclosure of HIV positive status.

5.3 SUMMARY AND INTERPRETATION OF THE RESEARCH FINDINGS

The study was important in revealing the perceptions of IDM students in relation to the risk of HIV infection. They expressed their views, whether they view themselves as susceptible to HIV infection or not and the risk factors associated with HIV infection. Furthermore, the students expressed their fear in relation to HIV testing, pregnancy and disclosure of the HIV positive status. They also shared that they are aware of HIV preventive measures, including the benefits of testing for HIV, which include enrolling for ART. These results are in line with what other researchers have found. Some participants' views are that they are at risk of HIV infection and that alcohol and drug abuse are associated with risky sexual behaviours, such as multiple concurrent partnerships. The results further indicate that students engage in multiple concurrent sexual partnerships and intergenerational relationships that are risk factors to HIV. Young women indulge in sexual relationships with older men in exchange for financial benefits. Finally, the study included all the six constructs of HBM in the discussion of the findings. The HBM is thus an appropriate theory to be used in HIV and AIDS prevention and public health research.

5.4 RECOMMENDATIONS

There are five key action areas of the Ottawa Charter for Health Promotion, which provide strategies from which governments and health promoters can support students to promote health and discourage risky HIV related behaviours. These action areas are building a healthy public policy, creating a supportive environment, strengthening community action, developing personal skills and reorienting the health services (World Health Organization 1986). The following recommendations are based on the five key action areas of Ottawa Charter for Health Promotion:

- **Building healthy public policy** - Healthy policies include legislation, rules and regulations applied by governments to improve health. It aims to make the healthier choice the easier choice for the population.
 - The government should focus on community programmes and interventions to tackle HIV and AIDS among young people by using policies such as the Botswana National Policy on HIV and AIDS of 2013.
 - There is a need to address HIV-related stigma and discrimination with the enactment of nondiscriminatory HIV policies. With such policies in place, students who are afraid of going for HIV testing might overcome their fears.
 - Supportive and committed leadership at tertiary institutions to drive a strong and sustainable HIV and AIDS response is a necessity.
 - Strengthening the mainstreaming response to HIV and AIDS into the core functions and operations of tertiary institutions by conducting research and training to inform policies.
 - Creating a tertiary environment that is free of HIV-related stigma and discrimination.
- **Creating a supportive environment** - Health promotion generates living and working conditions that are safe, stimulating, satisfying and enjoyable.

- Health promotion initiatives such as the Health-Promoting Schools and Healthy Worksite should be strengthened to create environments that support healthy behaviours and promote health in different contexts. The student welfare office together with the newly introduced Health and Safety office at IDM should broaden the scope for the two offices to work together in making IDM a health promoting school and healthy worksite by using a comprehensive approach to address the determinants of health among students and staff.

- **Strengthening community action** - Effective health promotion strategies involve empowering the communities, ownership and control of their own endeavours and destinies.
 - To discourage risky HIV behaviours, governments should empower communities to develop local strategies to address students within their own communities because they are part of the communities.
 - Strengthening of behavioural change interventions for tertiary students to emphasise and demonstrate the benefits of HIV testing and disclosure of the HIV positive status.
 - Preventive strategies should focus on underlying socio-economic issues such as youth unemployment, which is associated with transactional sex, as participants expressed these as factors influencing risky behaviour to HIV infection.
 - Strengthening social support, for example, through support groups or ongoing counselling may help students to overcome the barriers to disclosure of an HIV positive status, especially fear as expressed by participants.

- **Developing personal skills** - Health promotion supports personal and social development by providing information, education for health and enhancing life skills. By so doing, it increases the options available to students to exercise more control over their own health, their environments and to make choices conducive to health in terms of adopting HIV preventive measures.

- Empowerment programmes of students in tertiary institutions on HIV and AIDS. The programmes should also include strategies to increase students' self-efficacy in preventing HIV and AIDS.
 - The government should include in the curriculum of all schools a course on emerging public health issues which will address, among others, the consequences of alcohol and drug abuse, transactional sex and multiple sexual partners as they were expressed as risk factors to HIV infection.
 - Parents or guardians are the custodians of these students, thus they also have their own part to play. Therefore, the empowerment of parents on the dangers and health consequences of HIV infection so that they can effectively tackle the issue at home.
- **Reorienting health services** - is primarily about the health sector changing from focusing primarily on clinical and curative services to increasingly focus on health promotion and prevention.
 - Improving access to youth friendly services and moving towards a preventive approach of addressing lifestyle behaviours.
 - The government should introduce programmes to get young people back on track before more serious alcohol and drug-related problems emerge as participants have expressed that alcohol and drug abuse is one of the risky behaviours to HIV infection.
 - Also civil society organisations should partner with local youth social and sports clubs, and empower them to build a culture of responsible drinking.

5.5 CONTRIBUTIONS OF THE STUDY

Generally, the results show that high risk behaviours leading to HIV and AIDS prevalence are still common among young people, hence the need for the government of Botswana to specifically address them, by coming up with target specific behavioural intervention programmes. There is a need to review current behavioural programmes and to develop new strategies which are aimed at targeting all groups of people. It is also certainly sensible to emphasise the importance of eliminating remaining information gaps in order to fight the spread of HIV and AIDS. The study has contributed to the body of knowledge, and the findings can be used to strengthen HIV programming. HIV and AIDS programming involving the five key action areas of the Ottawa Charter for health promotion and their enforcement might influence change in the current behaviour of young people with regards to adopting HIV preventive measures. Full compliance with the five action areas of the Ottawa Charter for Health Promotion to close the gaps as the key action areas presents a comprehensive approach rather than a selective approach address associated with HIV risky behaviours could go a long way in eliminating AIDS by 2030 and in achieving Goal 3 of the United Nations Sustainable Development Goals, which is to ensure healthy lives and promote well-being for all at all ages. AIDS still remains the leading cause of death globally.

5.6 STRENGTHS AND LIMITATIONS OF THE STUDY

The strengths of the study are as follows:

- Face to face interviews provided an opportunity to capture additional emotional and behavioural clues, such as discomfort or enthusiasm with questions that one would not be able to pick up with any other interview methods.
- Face to face interviews help with making sure that the individual being interviewed is the right one and no one can respond on their behalf unlike telephone interviews.

The limitations of the study are as follows:

- The study participants were selected purposively, and the study was limited to second year IDM Public Health students. It is possible that selecting students from other programmes and tertiary institutions in the area could have identified other themes. It is difficult to exclude selection bias that may be introduced by purposive sampling.
- The study was conducted during the Covid-19 pandemic where the regulations restricted meeting times and forced people to maintain a social distance of 1 – 2 metres apart. This limited the quality of interaction.

5.7 CONCLUSION

This study discussed the literature that supports the title, findings that were supported by literature control, summary, conclusion, limitations and recommendations of the study. The findings drawn from the study on perceptions of risk of HIV infection among IDM students revealed views and challenges faced by students in adopting HIV preventive measures. Besides these challenges, participants acknowledged that they are aware of the HIV preventive measures and benefits of adopting these measures. It is necessary that the recommendations of this study be implemented in order to strengthen and improve HIV and AIDS programming for students.

LIST OF REFERENCES

- Abiona, T, Balogun, J, Yohannes, E, Adefuge, A, Yakut, Y, Amosin, S & Frantz, J. 2014. HIV and AIDS knowledge, perception of knowledge and sources of information among university students in USA, Turkey, South Africa and Nigeria. *Journal of Health Education*, 73(6):755-767.
- Aluzimbi, G, Lubwama, G, Muyonga, M, & Hladik, W. 2017. HIV testing and risk perceptions: A qualitative analysis of secondary school students in Kampala, Uganda. *Journal of Public Health in Africa*, 8(1):577.
- Badisa, B. 2018. *Institute of Development Management iNews* no.04 Feb 2018. IDM Botswana.
- Bernard, HR. 2014. *Social research methods. Qualitative and quantitative approaches*. 2nd edition. London, United Kingdom: SAGE Publications, Inc.
- Centre for Disease Control and Prevention. 2018. *About HIV and AIDS*. Retrieved from <http://www.cdc.gov/hiv/basics/whatishiv.html> (accessed 15 July 2020).
- Chirambo, L, Valeta, M, Kamanga, TMB & Nyondo-Mipando, AL. 2019. Factors influencing adherence to antiretroviral treatment among adults accessing care from private health facilities in Malawi. *BMC Public Health*, 19:5-6.
- Choudhry, V, Ambresin, AE, Nyakato, VN & Agardh, A. 2015. Transactional sex and HIV risks – evidence from a cross-sectional national survey among young people in Uganda, *Journal of Global Health Action*, 8:1-11.
- Clark, P & Ivankova, NV. 2015. *Mixed methods research: A guide to the field*. London, United Kingdom: SAGE Publications Inc.
- Collins English Dictionary. 2013. *Digital edition*. Glasgow: Harper Collins.
- Creswell, D & Creswell, JW. 2017. *Research design; qualitative, quantitative and mixed methods approaches*. Los Angeles: SAGE Publications Inc.
- Creswell, JW. 2014. *Research design, qualitative, quantitative and mixed methods*. 4th edition. United States of America: SAGE Publications Inc.

Dessalegn, NG, Hailemichael, RG, Shewa-amare, A, Sawleshwarkar, S, Lodebo, B, Amberbir, A & Hillman, RJ. 2019. HIV Disclosure: HIV-positive status disclosure to sexual partners among individuals receiving HIV care in Addis Ababa, Ethiopia. *PLoS one*, 14(2):8-17.

Dimbuene, ZT. 2015. Families' response to AIDS: New insights into parental roles in fostering HIV and AIDS knowledge. *Journal of Biosocial Science*, 47(6):762-79.

Duby, Z, Jonas, K, Appollis, TM, Maruping, K, Vanleeuw, L, Kuo, C & Mathews, C. 2021.

Faimau, G, Maunganidze, L, Tapera R, Mosomane, CK & Apau, S. 2016. Knowledge of HIV/AIDS, attitudes towards sexual risk behavior and perceived behavioral control among college students in Botswana. *Cogent Social Sciences*, 2:5-12.

From survival to glamour: motivations for engaging in transactional sex and relationships among adolescent girls and young women in South Africa. *AIDS & Behaviour*, 25(10):3238-3254.

Fusch, PI & Ness, LR. 2015. Are we there yet? Data saturation in qualitative research. *The Qualitative Report*, 20:1408-1416.

Garegae, KG, Mogotsi, MS & Gobagoba, MR. 2017. Exploring the status of HIV and AIDS related stigma among students in Botswana learning institutions: A comparison of BAIS II and BAIS IV. *Mosenodi Journal*, 20(1):88-99.

Gentles, SJ, Charles, C, Ploeg, J & McKibbon, K. 2015. Sampling in qualitative research: Insights from an overview of the methods literature. *The Qualitative Report*, 20(11):1772-1789.

Glanz, K, Rimer, BK & Viswanath, K. 2015. *Health behavior, theory, research, and practice*. 5th edition. San Francisco: Jossey-Bass.

Gournelos, T, Hammonds, JR & Wilson, MA. 2019. *Doing academic research: a practical guide to research methods and analysis*. 1st edition. London: Taylor & Francis Publishers.

Gray, J & Grove, SK. 2020. *The practice of nursing research: appraisal, synthesis and generation of evidence*. 9th edition. St Louis Missouri: Elsevier.

- Haile, Z, Kingori, C, Darlington, K, Basta, T & Chavan, B. 2017. HIV risk perception among college students at a university in the Midwest. *Journal of Sexuality & Culture*, 21(1):62-73.
- Hanover, MD. 2017. *National college health assessment II: Reference group executive summary spring 2017*. American College Health Association.
- Harris, JM. 2019. Knowledge, behavior and attitudes of college students regarding HIV and AIDS. *Fisher Digital Publications*, 4(1):106-117.
- Hasham, AC, Rana, A, & Shareen, A. 2015. Knowledge, behaviour and attitudes regarding HIV and AIDS among undergraduate students in an Irish University. Iqbal Medical College, Lahore, Pakistan. *International Journal of Surgery and Medicine*, 1(2):58-66.
- Hendricks, L, Brooks, T, Tague, A & Ray, A. 2018. HIV among today's college students. *HIV and AIDS Research Journal*, 1(1):1-2.
- Institute of Development Management. 2018. *Institute of Development Management Residence Policy of 2018*. Gaborone, Botswana.
- Institute of Development Management. 2019. *Institute of development management annual report 2019*. Gaborone, Botswana.
- Jahic, R, Porobic-Jahic, H, Zepic, D, Piljic, D, Petrovic, J & Custovic, A. 2020. Knowledge, attitude and stigma towards HIV patients: a survey among medical students in Tuzla, Bosnia and Herzegovina. *Journal of Infectious in Developing Countries*, 14(9).
- Joint United Nations Programme on HIV and AIDS. 2019. *Report on Global AIDS Epidemic*. UNAIDS, Geneva.
- Kanda, L & Mash, R. 2018. Reasons for inconsistent condom use by young adults in Mahalapye, Botswana. *African Journal of Prime Health Care and Family Medicine*, 10(1), e1-e7.
- Kimera, E, Vindevogel, S, Reynaert, D, Justice, KM, Rubaihayo, J, De Maeyer, J, Engelen, AM, Musanje, K, & Bilsen, J. 2020. Experiences and effects of HIV-related

stigma among youth living with HIV and AIDS in Western Uganda: *Journal of Global Health Action*, 15(4):8-17.

Kothari, CR & Garg, G. 2014. *Research methodology, methods and techniques*. 3rd edition. New Delhi: New Age International Publishers.

Kunguma, O, Pelsler, A, Tanyi, P & Muhame, C. 2018. Social and structural vulnerability as a barrier in HIV and AIDS communication campaigns: Perceptions of undergraduate students at a South African tertiary institution. *Jamba: Journal of Disaster Risk Studies* 10(1).

Leavy, P. 2017. *Quantitative, qualitative, mixed methods, arts based, community based participatory research approach*. New York, USA: The Guilford Press.

LoBiondo-Wood, G & Haber, J. 2014. *Nursing research; methods and critical appraisal for evidence based practice*. 8th edition. Britain: Library of Congress, Elsevier Inc.

Lune, H & Berg, BL. 2017. *Qualitative research methods for social sciences*. 9th edition. California State University, Long Beach: Pearson Publishers.

Madiba, S & Mokgatle, M. 2016. Perceptions and experiences about self-disclosure of HIV status among adolescents with perinatal acquired HIV in poor-resourced communities in South Africa. *Journal of AIDS Research and Treatment*, 6:1-10.

Majelantle, RG, Keetile, M, Bainame, K & Nkawana, P. 2014. Knowledge, opinions and attitudes towards HIV and AIDS among youth in Botswana. *Journal of Global Economics*, 2(108):4-7

Manjengwa, PG, Mangold, K, Musekiwa, A & Kuonza, LR. 2019. Cognitive and behavioural determinants of multiple sexual partnerships and condom use in South Africa: Results of a national survey. *South Africa Journal of HIV Medicine*, 20(1):4-6.

Muoghalu, CO & Afolabi, TO. 2016. Undergraduate Student's Perception of HIV and AIDS: A case of Obafemi Awolowo University Ile-Ife, NIGERIA. *Journal of Clinical Research in HIV and AIDS and Prevention*, 2(3):27-28.

- Murwira, TS, Khoza, LB, Mabunda, JT, Maputle, SM, Mpeta, M & Nunu, WN. 2021. Knowledge of Students regarding HIV and AIDS at a Rural University in South Africa. *The Open AIDS Journal*, 15;42-51.
- National AIDS Coordinating Agency. 2016. *The Botswana National HIV and AIDS Strategic Framework 2016*. Gaborone, Botswana: Government Printers.
- Ndabarora, E & Mchunu, G. 2014. Factors that influence utilization of HIV and AIDS prevention among university students residing at selected university campus. *Journal of Social Aspects of HIV and AIDS Research Alliance*, 11(1):202-10.
- Neuman, L. 2014. *Social research methods; quantitative and qualitative approaches*. 7th edition. USA: Pearson Education Limited.
- Nowell, LS, Morris, JM, White, DE & Moules, NJ. 2017. Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16:1-13.
- Nubed, CK & Akoachere, JF. 2016. Knowledge, attitudes and practices regarding HIV/AIDS among senior secondary school students in Fako Division, South West Region, Cameroon. *BMC Public Health*, 16(847):4-6.
- Paul, CP, Rajivs, SJ & I-Chant, AG. 2015. *Research methods in psychology*. 2nd edition. Canada: Canadian Press.
- Philipos, P. 2014. Risk perception, HIV and AIDS related knowledge, attitude and practice of the university community: The case of Ethiopian Civil Service College. *Journal of HIV and AIDS*, 13(1):26-32
- Polit, DE & Beck, TC. 2017. *Nursing research, generating and assessing evidence for nursing practice*. 9th edition. Philadelphia; Lippincott Williams & Wilkins.
- Saffier, IP, Kawa, H, Harling, G. 2017. A scoping review of prevalence, incidence and risk factors for HIV infection amongst young people in Brazil. *BMC International Health and Human Rights*, 17(675):3-10
- Saldana, J. 2015. *The coding manual for qualitative researchers*. 3rd edition. USA: SAGE Publications Inc.

Snelling, A. 2014. *Introduction to health promotion*. San Francisco, CA; Jossey-Bass Publications Inc.

Taylor, SJ, Bogdan, R & DeVault, ML. 2016. *Introduction to qualitative research methods*. 4th edition. Hoboken New Jersey: John Wiley & Sons Inc.

Tracy, SJ. 2013. *Qualitative research methods*. London: Wiley- Blackwell Publications.

Umam, KM, Hemchayat, M & Wetasin, K. 2017. Perceptions about HIV and AIDS and HIV prevention behaviors among university students in Indonesia. *Journal of Reproductive Health*, 8(1):31-40.

Umar, R, Embong, A, Zakaria, N, Mutalib, S & Mohamad, N. 2019. Perception of HIV and AIDS among students at College and University in Malaysia. *Inwascon Technology Magazine*.

Vagenas, P, Ludford, KT, Gonzales, P, Peinado, J, Cabezas, C, Gonzales, F, Lama, JR, Sanchez, J & Altice, FL. 2014. Being unaware of being HIV-infected is associated with alcohol use disorders and high-risk sexual behaviors among men who have sex with men in Peru. *Journal of AIDS and Behavior*, 18(1):120-127.

Warren, EA, Paterson, P, Schulz, WS, Lees, S, Eakle, R, Stadler, J & Larson, HJ. 2018. Risk perception and the influence on uptake and use of biomedical prevention interventions for HIV in sub-Saharan Africa: A systematic literature review. *PLoS one*, 13(6):6-11.

World Health Organization. 2019. *The World Health Report*. World Health Organization, Geneva: Switzerland.

World Health Organization. 1986. The Ottawa charter for health promotion. Retrieved from <http://www.who.int/mediacentre/factsheets/fs360/en>. (Accessed 27 Nov 2021).

Zefi, V. 2015. Knowledge and risk perception toward HIV and AIDS among students of the university of Prishtina. *Journal of Psychology*, 6;191-200.

Zizza, A, Guido, M, Recchia, V, Grima, P, Banchelli, F & Tinelli, A. 2021. Knowledge, information needs and risk perception about HIV and sexually transmitted diseases after

an education intervention on Italian High School and university students. *International Journal of Environmental Research & Public Health*, 18(4):4-9.

LIST OF APPENDICES

APPENDIX 1: INTERVIEW GUIDE

Section A: Demographic information.

Age	Gender	Marital status

Section B Interview Question

1. Tell me about your views on your own risk to HIV
2. Follow up questions
 - Do you consider yourself to be at risk of HIV?
 - Do you think there are things that you are doing that can put you at risk of HIV infection? And in what ways are you putting yourselves at risk?
 - In your opinion, what are some of the consequences of getting HIV?
 - Do you think that freedom or detachment from parental care has any relationship to HIV risk behaviour?
 - What actions would you take in relation to these risks?
 - What are your general impressions of the services provided for students in HIV and AIDS programming in IDM and Botswana?

APPENDIX 2: ETHICAL CLEARANCE CERTIFICATE



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TURFLOOP RESEARCH ETHICS COMMITTEE
ETHICS CLEARANCE CERTIFICATE

MEETING: 24 March 2021

PROJECT NUMBER: TREC/45/2021: PG

PROJECT:

Title: Perceptions of risks of Human Immunodeficiency Virus infection among students in the institute of development management, Gaborone, Botswana Campus
Researcher: KM Malefho
Supervisor: Prof SF Matlala
Co-Supervisor/s: N/A
School: Health Care Sciences
Degree: Master of Public Health

PROF P MASOKO

CHAIRPERSON: TURFLOOP RESEARCH ETHICS COMMITTEE

The Turfloop Research Ethics Committee (TREC) is registered with the National Health Research Ethics Council, Registration Number: REC-0310111-031

Note:

- i) This Ethics Clearance Certificate will be valid for one (1) year, as from the abovementioned date. Application for annual renewal (or annual review) need to be received by TREC one month before lapse of this period.
- ii) Should any departure be contemplated from the research procedure as approved, the researcher(s) must re-submit the protocol to the committee, together with the Application for Amendment form.
- iii) PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES.

Finding solutions for Africa

APPENDIX 3: LETTER OF REQUEST FOR PERMISSION FOR DATA COLLECTION FROM MINISTRY OF HEALTH AND WELLNESS.

Ministry of Health and Wellness

Department of Health and Research

Bag 0035, Gaborone Botswana

Dear Sir/Madam

Re: Request to conduct research titled “PERCEPTIONS OF RISKS OF HUMAN IMMUNODEFICIENCY VIRUS INFECTION AMONG STUDENTS IN THE INSTITUTE OF DEVELOPMENT MANAGEMENT, GABORONE, BOTSWANA CAMPUS”.

I, Kegomoditswe Malefho am pursuing a Master’s in Public Health in the University of Limpopo, Faculty of Health Sciences in order to fulfil my research work. I hereby request to be granted permission to conduct a research at the Institute of Development Management, Botswana Campus. I have selected IDM students as my esteemed participants and the aim of this study was to determine HIV risk perception among students at the Institute of Development Management, Botswana Campus.

Attached are the research proposal and the ethical clearance certificate from the Turfloop Research Ethics Committee of the University of Limpopo.

Thanking you

Yours Sincerely

(Masters Student)

Date: _____

APPENDIX 4: LETTER GRANTING PERMISSION TO COLLECT DATA FROM MINISTRY OF HEALTH AND WELLNESS

PRIVATE BAG 0038
GABORONE
BOTSWANA
REFERENCE:



REPUBLIC OF BOTSWANA

MINISTRY OF HEALTH AND WELLNESS

TEL: (+267) 363 2500
FAX: (+267) 391 0647
TELEGRAMS: RABONGAKA
TELEX: 2818 CARE BD

REFERENCE NO: HPDME 13/18/1

19 May 2021

Health Research and Development Division

Notification of IRB Review: **New application**

Kegomoditswe Malefho
P.O.Box 1357
Gaborone
Botswana

Dear Kegomoditswe Malefho

Protocol Title: PERCEPTIONS OF RISKS OF HUMAN IMMUNODEFICIENCY VIRUS
INFECTION AMONG STUDENTS IN THE INSTITUTE OF DEVELOPMENT
MANAGEMENT, GABORONE, BOTSWANA CAMPUS

HRDD Approval Date:	19 May 2021
HRDD Expiration Date:	18 May 2022
HRDD Review Type:	Expedited Review
HRDD Review Determination:	Approved
Risk Determination:	Minimal risk

Thank you for submitting new application for the above referenced protocol. The permission is granted to conduct the study.

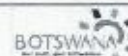
This permit does not however give you authority to collect data from the selected sites without prior approval from the management. Consent from the identified individuals should be obtained at all times.

The research should be conducted as outlined in the approved proposal. Any changes to the approved proposal must be submitted to the Health Research and Development Division in the Ministry of Health for consideration and approval.

Furthermore, you are requested to submit at least one hardcopy and an electronic copy of the report to the Health Research, Ministry of Health and Wellness within 3 months of completion of the study. Copies should also be submitted to all other relevant authorities.

Vision: *A Healthy Nation by 2036.*

Values: *Botho, Equity, Excellence, Customer Focus, Teamwork, Accountability*



**APPENDIX 5: LETTER OF REQUEST FOR PERMISSION FOR DATA COLLECTION
FROM THE INSTITUTE OF DEVELOPMENT MANAGEMENT**

To: Country Director
IDM Botswana
Box 1351 Gaborone

Dear Madam

Re: Request to conduct research titled “PERCEPTIONS OF RISKS OF HUMAN IMMUNODEFICIENCY VIRUS INFECTION AMONG STUDENTS IN THE INSTITUTE OF DEVELOPMENT MANAGEMENT, GABORONE, BOTSWANA CAMPUS’.

I, Kegomoditswe Malefho am pursuing a Master’s in Public Health in the University of Limpopo, Faculty of Health Sciences in order to fulfil my research work I have selected your students as my esteemed respondents as they perfectly fit the decided criteria. I wish to conduct a study on perceptions of HIV risk among IDM year two selected students.

I therefore apply to be granted permission to conduct individual interviews with Public health year two students for this study. To ensure confidentiality, privacy and anonymity of the participants, there will be no names and identities required. Kindly permit me to collect data at IDM.

Anticipating your kind cooperation and positive response

Thanking you

Yours Sincerely

(Masters Student)

Date: _____

APPENDIX 6: PERMISSION LETTER GRANTING COLLECTION OF DATA AT IDM



Botswana Campus

The Country Director
Institute of Development Management
P.O. Box 1357
Gaborone
Botswana
Tel: +267 361 2100
Fax: +267 391 3296
director@idmbls.com

Francistown Campus

The Country Director
Institute of Development Management
Private Bag 00244
Francistown
Botswana
Tel: +267 2410300
Fax: +267 2410314
ftwncampus@idmbls.com

Ref: **IDM-B 1 / 9 / 2 IV**

Date: June 15, 2021

Kegomoditswe Malefho
P. O. Box 1357
Gaborone

Dear Sir/Madam

Proposal title: Perceptions of Risks of Human Immunodeficiency Virus Infection among students in the Institute of Development Management, Gaborone, Botswana Campus

Thank you for submitting the application for approval of the above mentioned study.

Following the Ministry of Health and Wellness' approval of your research, the Institute of Development Management (IDM) Research Committee hereby grants you permission to conduct your study in the Institute. **This permit will expire on May 15, 2022.** Informed consent from potential study participants should be obtained at all times. Kindly note that the proposal is approved on the basis that the information collected therein will be for academic purposes only, hence will not be shared with unauthorised persons.

The study should be conducted as outlined on the approved proposal and any changes to the approved proposal should be submitted to IDM Research Committee for review and approval.

For any enquiry about this permit, don't hesitate to contact me at 3612152 or lmoremi@idmbls.ac.bw

Thanking you for your cooperation and commitment to the protection of human subjects in research

Yours faithfully

A handwritten signature in black ink, appearing to read 'Lemphi Moremi', is written over a horizontal line.

Lemphi Moremi
Senior Consultant

For IDM Research Committee Chairperson

APPENDIX 7: INFORMED CONSENT

(For each participant, please read and understand the document before signing)

Research title

PERCEPTIONS OF RISKS OF HUMAN IMMUNODEFICIENCY VIRUS INFECTION AMONG STUDENTS IN THE INSTITUTE OF DEVELOPMENT MANAGEMENT, GABORONE, BOTSWANA CAMPUS

Introduction

This is an invitation to participate in the study as a volunteer and therefore I request for you to participate in the study. This study has been approved by the Turfloop Research and Ethics Committee and IDM management has granted me permission to conduct the study.

Purpose of the Study

The purpose of this study is to explore perceptions of risk of HIV among IDM year two Public Health students. It will explore how the perceived freedom or detachment from parental care is facilitating HIV risk behaviour.

Before the study you will need to complete;

- This consent form and
- A short biographical information request

During the study you are free to withdraw from the study without giving a reason, and that participation is voluntary.

Rights of participants of the study

Participation is voluntary and you have a right to refuse participation in the study. Refusal to participate will not in any way influence any future relationships with the school or the interviewer.

Risks

Risk in this study is minimal and if you feel any discomfort please do not hesitate to notify the researcher. The researcher will be very observant to identify any discomfort and refer appropriately.

Discontinuation of participation in the study

No pressure will be exerted on the participant to consent to participate in the study and the participant may withdraw at any stage without penalisation.

Any financial arrangements

There are no financial resources that participants can benefit from the study, but their participation in the study will help the researcher to fulfil the requirements of being awarded a master's degree.

Confidentiality

All the information provided to the researcher will be treated as confidential.

PART B

Informed consent to be signed by the participant

I hereby confirm that I have been informed by the researcher, **Ms Kegomoditswe Malefho** about the nature, conduct, benefits and risks of this study. I have also read the above information regarding this study.

I agree to maintain the confidentiality of the information discussed by all participants and researchers during the interviews.

I may withdraw my consent as well as my participation in the study and declare that I had sufficient opportunity to ask questions and therefore declare myself prepared to participate in the study.

Participant name _____

Date _____

Researcher's name _____

Researcher's signature _____

Date _____

I, **Kegomoditswe Malefho** herewith confirm that the above participant has been informed fully about the nature of the study.

Witness name _____

Witness's signature _____ Date _____

APPENDIX 8: TRANSCRIPTS OF INTERVIEWS

Participant 4 Interview transcript

Researcher	Tell me about your views on your own risk to HIV
Participant	Ok my view is that mhh, HIV, like young people are more at risk of getting infected, due to lack of employment, they turn to just indulge in sexual intercourse with older men just for money because some are not staying with their parents, and again the allowance is not catering for their needs, so they turn to gaining extra money from these men and they end up engaging in unprotected sex and this will put them at risk of getting HIV and AIDS. Also nowadays we have young men and women who have sex with same sex partners, this worsens the issue of HIV, there is actually a lot for example having a partner who is at high risk or already has HIV, multiple partners.
Researcher	Do you consider yourself to be at risk of HIV?
Participant	I consider myself to be at risk because being a young person, you are at risk due to the sexual partners or relationships that one has during life and again sometimes you end up just engaging in unprotected sex maybe for reasons that maybe you don't have condoms at the right time
Researcher	Ok, can you share more on the issue of not having condoms at the right time?
Participant	Ok there are times where one can get carried away and forgot to use condom, or at the time of sexual intercourse as is not usually planned, one may find that both of us don't have a condom and one will not have choice but to just do it you know. Also asking for condom usage in a long-term relationship is seen as a lack of trust, so it becomes difficult to pursue condom use if you have been in a relationship for a long time, though we might not even know each other status. Other factors are less fear of contracting HIV as it can now be controlled with medication, so we really do not know and have not witnessed the effects of HIV, as people enroll for ARV's and the effects are controlled, so whether one is HIV positive or not, we all live normally. I doubt there is anyone among us who can say 100% of the time, they use a condom. Most people in most of our conversations they do not want to be pregnant, so condom is used mostly to prevent pregnancy and most of the time due to fear of pregnancy, ladies use other family planning methods to prevent pregnancy and when you know you are safe from pregnancy, then whether a

	condom is used or not, does not become a big issue. And for me, it's like we as women are the ones that are in most cases concerned about condom use, our male counterparts are always eager and ready to use any available opportunity of not using a condom, if you do not insist as a woman, then the guy is ok to do without a condom. But as for availability of government condoms, condoms are available in most areas including in school
Researcher	Ok you have talked about long term relationship, when do one say this is a long term relationship, after how many months or years?
Participant	Mmmh, well it depends on an individual level but mostly from 3 or 6 months of the relationship as people usually say and the use of condom is not very strict as we now know each other and again even the trust is there, though you can never be 100% certain about trusting your partner. Again issues like HIV in a relationship are really not discussed per say, HIV testing and the like are really not discussed in most relationship, I don't remember us talking about HIV and issues of testing before and even during the relationship. So though we know HIV is there, we have information, in real we do not talk much about it as we get into relationships, but we do talk about pregnancy, like for me I do not want a child now, so I'm always saying to my partner that we use a condom to prevent pregnancy, I am not ready for a child as yet, I want to finish my studies and start working, then I can start thinking of a child, for now it's a no.
Researcher	Ok on the issue of condom usage in a long-term relationship being seen as a lack of trust, can you explain this aspect?
Participant	Well like I have said when you pursue condom usage, the other partner will really ask questions like, so you do not trust me, and it becomes difficult to say yes or no to such questions. So to me a sexual relationship is emotionally loaded, mind games are there, so it calls for people that are certain about what they want no matter. So at times you have a good vibe in the relationship and you do not want to lose your partner, and when your trust and loyalty are challenged, you do not have choice but to give in to the demands of not using a condom. So that's the way it is with condoms.
Researcher	Why are HIV issues not discussed in a relationship?
Participant	Ahh for me, most we talk about issue of pregnancy more especially if my partner negotiate sex without a condom, but HIV is not discussed, I guess maybe it's the issue of less of fear of contracting HIV as it can now be controlled with medication, I take it maybe it's because, we know there are ARV, therefore even if one get HIV, they will still live normal life and at times, one can decide to keep it as a secret and no one will know

	that you are HIV positive, as for pregnancy, everyone will know, there is no way of hiding it and eventually even your parents will know.
Researcher	Ok, you said women are the ones that are in most cases concerned about condom use, can you elaborate on this?
Participant	Well though as young people, be it male or female, we are adventurous, we want to explore the world, women are always more concerned about health than men, that's the way I see it, I guess it is even explained by the number of men accessing or utilizing health care services. So men are usually casual or not very concerned about condom use, I guess it is for the same reason of less fear of HIV and for pregnancy, they will not be pregnant so again they are not directly affected by pregnancy hence they are not much concerned.
Researcher	You have talked about unemployment as one of the risk factors to HIV, expand on this
Participant	Unemployment leads to severe financial hardship, debt, stress, family tensions and breakdown, boredom, shame and stigma, increased social isolation, erosion of confidence and self-esteem and when all these happens to someone it is likely that one will engage in multiple partners or engage with older men or women who can be a source of income, hence putting oneself at risk because when you are dependent on someone else, you cannot be at equal level to negotiate even for safer sex, the ultimate goal is to make a living and if it will come at a price where one has to do anything, one will be forced to do such. Unemployment makes one to have low self-esteem, imagine with low self-esteem, it's difficult to negotiate and be firm about your own choices or decisions. The stress, tensions, stigma can even lead one to abuse drugs and alcohol to try and forget the challenges one is going through and this too will put one at risk of HIV. Some people end up even resorting to commercial sex work to make a living and again this another risky behaviour to HIV, so really unemployment breeds a lot of problems, it's really tough out there.
Researcher	Ok so you are a student, so the issue of unemployment does not affect students, what's your view on this?
Participant	Well yes for now when we are still students, but as you know unemployment is high even among graduates, as we graduate we join the unemployed cohort, so the same situation will present its self as I have said previously. Again though we are still students and we get allowance, the allowance does not meet our needs, life is expensive and the allowance does not cater for all our needs. So it's the same when you are a student or unemployed youth because we face the same challenges, hence we find ourselves

	engaging in all risky behaviour irrespective of whether one is in school or out of school youth.
Researcher	Ok thank ,the issue of young men and women who have sex with same sex partners that you talked about, can you please explain that
Participant	Ok alright, nowadays the issue of gays, lesbians are common among young people, though not a significant number, but we have seen people coming out to say they are gays, lesbians or bisexual in our societies, even here in school we have some. And most gay and bisexual practice anal sex and it is the riskiest type of sex for getting HIV or even passing it to others. Again even among gays, lesbians and bisexual, still the issue of not using condoms consistently is prevalent just like in heterosexual relationships. 'Gape' (also) negative attitudes about gays and lesbians may discourage gays and bisexual men from getting tested for HIV and finding health care to prevent and treat sexually transmitted infections including HIV. As the society we are still struggling with accepting that we have this group of people, though I am not sure even as a country our laws do not acknowledge gays and lesbians even their marriages, so this makes it difficult to access health care services due to stigma and discrimination, so issues like HIV testing that one has to do at least once a year, more especially for this cohort, it becomes difficult, hence increasing the risk of infection. Nowadays there is Prep for high risk groups and the gays and lesbians could benefit from it, but like I have said it's not easy for this group to access health care services.
Researcher	Ok, so what is Prep?
Participant	Okay, Prep is...., it stands for ehh, ijoo I have forgotten. Ohh it stands for pre-exposure prophylaxis, it is medicine people at high risk for HIV take to prevent getting HIV from sex. When taken as prescribed, Prep is highly effective for preventing HIV, it means just like any other medication adherence is important. So this is a good initiative but like I said issues of access due to stigma and discrimination might prevent this group to access these services.
Researcher	Ok thank you, let's talk about people who are born HIV positive that you talked about earlier, elaborate on that
Participant	Yes there are people who were born HIV positive, before the program of PMTCT that is prevention of mother to child therapy, or maybe those whom their mothers did not enroll for the PMTCT program and ended up being HIV positive. The issue of disclosure of HIV status to the partner or any other person is a problem. There is still a lot of stigma and I guess they have a lot to deal with, they might just hate or resent their parents for

	their condition. This will bring about anger and it can lead them to do anything, maybe have multiple partners, substance abuse, and these are the risky behaviors to HIV. They may also decide not to take the ARV therapy, which on its own reduces the chances of infecting the other person
Researcher	You have talked about what young people do that can put them at risk of HIV, do you think there are things that you are doing that can put you at risk of HIV infection? And in what ways are you putting yourselves at risk?
Participant	Well hahaha....(laughing), I'm a young person, so yes there are things that I have mentioned in general for my age mates that I too at times, find myself in a tight corner, for example inconsistent use of a condom. Again too much freedom, yaa too much freedom, since we are not staying with parents we don't have anyone to control us and no one says you don't have to go there or so, we just go anywhere we want and see whoever we want to see at any time. Sometimes you really want a stable relationship but unfortunately you might meet someone who is not committed and it will look like you are charging partners frequently, which happens mostly where you will have a relationship that lasts for three (3) months, thereafter there is breakup and again you move on to the next one, so it's like having multiple partners. Relationships are difficult, where there are two (2) people involved, it is not easy.
Researcher	In your opinion what are some of the consequences of getting HIV?
Participant	I think though nowadays unlike in the past before ARV, there was high mortality rate, nowadays mortality rate might have decreased, though people might die due to HIV related stress like committing suicide when one realize that they are HIV positive. Failure to accept the HIV status and not enrolling into the ARV therapy program, hence opportunistic infections will take its toll. Major consequences are social and economic impact. It is not easy to relate or have relationship unless one has accepted their HIV status.
Researcher	Ok talk about the condoms that you have talked about in school
Participant	Ok condoms are available in school and in most areas around the city, I think condom distribution is ok.
Researcher	Apart from condoms are there any other HIV services provided in school?
Participant	Yes, though there are times where we have wellness days, where different health services will be provided by different organizations from outside the school. Again in school there is counselling and information sharing by the use of booklets, pamphlets

	on different health topics. I think that's all that happens in school since I started with my studies.
Researcher	What are your general impressions of the services you have just talked about that are provided for students in HIV and AIDS programming in IDM and Botswana?
Participant	I think they are ok, just ok, where we are with the high incidence of HIV among young people every year, more has to be done to address the predisposing factors to HIV and that should be coupled with behaviour change, and initiatives more especially by government to create opportunities for employment.
Researcher	So in conclusion do you have anything more to add about HIV risk factors
Participant	Well I think I have shared a lot with you, but my main worry or concern is the issue of unemployment like I have said, if young people can get opportunities of working, be it graduates or unskilled youth, this will reduce issues of multiple partners I guess. To me employment on its own its empowerment, so I guess that is the direction if as a country we want to win the war against HIV more especially among youth.
Researcher	Ok alright
Participant	yaa
Researcher	Ok let me thank you for participating in this study, thank you
Participant	Thank you

Participant 4 Interview transcript	
Researcher	Tell me about your views on your own risk to HIV
Participant	Ok my view is that mhh, HIV, like young people are more at risk of getting infected, due to lack of employment, they turn to just indulge in sexual intercourse with older men just for money because some are not staying with their parents, and again the allowance is not catering for their needs, so they turn to gaining extra money from these men and they end up engaging in unprotected sex and this will put them at risk of getting HIV and AIDS. Also nowadays we have young men and women who have sex with same sex partners, this worsens the issue of HIV, there is actually a lot for example having a partner who is at high risk or already has HIV, multiple partners.
Researcher	Do you consider yourself to be at risk of HIV?
Participant	I consider myself to be at risk because being a young person, you are at risk due to the sexual partners or relationships that one has during life and again sometimes you end up just engaging in unprotected sex maybe for reasons that maybe you don't have condoms at the right time
Researcher	Ok, can you share more on the issue of not having condoms at the right time?
Participant	Ok there are times where one can get carried away and forgot to use condom, or at the time of sexual intercourse as is not usually planned, one may find that both of us don't have a condom and one will not have choice but to just do it you know. Also asking for condom usage in a long-term relationship is seen as a lack of trust, so it becomes difficult to pursue condom use if you have been in a relationship for a long time, though we might not even know each other status. Other factors are less fear of contracting HIV as it can now be controlled with medication, so we really do not know and have not witnessed the effects of HIV, as people enroll for ARV's and the effects are controlled, so whether one is HIV positive or not, we all live normally. I doubt there is anyone among us who can say 100% of the time, they use a condom. Most people in most of our conversations they do not want to be pregnant, so condom is used mostly to prevent pregnancy and most of the time due to fear of pregnancy, ladies use other family planning methods to prevent pregnancy and when you know you are safe from pregnancy, then whether a condom is used or not, does not become a big issue. And for me, it's like we as women are the ones that are in most cases concerned about condom use, our male counterparts are always eager and ready to use any available opportunity of not using a condom, if you do not insist as a woman, then the guy is ok to do without a condom. But as for

	availability of government condoms, condoms are available in most areas including in school
Researcher	Ok you have talked about long term relationship, when do one say this is a long term relationship, after how many months or years?
Participant	Mmmh, well it depends on an individual level but mostly from 3 or 6 months of the relationship as people usually say and the use of condom is not very strict as we now know each other and again even the trust is there, though you can never be 100% certain about trusting your partner. Again issues like HIV in a relationship are really not discussed per say, HIV testing and the like are really not discussed in most relationship, I don't remember us talking about HIV and issues of testing before and even during the relationship. So though we know HIV is there, we have information, in real we do not talk much about it as we get into relationships, but we do talk about pregnancy, like for me I do not want a child now, so I'm always saying to my partner that we use a condom to prevent pregnancy, I am not ready for a child as yet, I want to finish my studies and start working, then I can start thinking of a child, for now it's a no.
Researcher	Ok on the issue of condom usage in a long-term relationship being seen as a lack of trust, can you explain this aspect?
Participant	Well like I have said when you pursue condom usage, the other partner will really ask questions like, so you do not trust me, and it becomes difficult to say yes or no to such questions. So to me a sexual relationship is emotionally loaded, mind games are there, so it calls for people that are certain about what they want no matter. So at times you have a good vibe in the relationship and you do not want to lose your partner, and when your trust and loyalty are challenged, you do not have choice but to give in to the demands of not using a condom. So that's the way it is with condoms.
Researcher	Why are HIV issues not discussed in a relationship?
Participant	Ahh for me, most we talk about issue of pregnancy more especially if my partner negotiate sex without a condom, but HIV is not discussed, I guess maybe it's the issue of less of fear of contracting HIV as it can now be controlled with medication, I take it maybe it's because, we know there are ARV, therefore even if one get HIV, they will still live normal life and at times, one can decide to keep it as a secret and no one will know that you are HIV positive, as for pregnancy, everyone will know, there is no way of hiding it and eventually even your parents will know.

Researcher	Ok, you said women are the ones that are in most cases concerned about condom use, can you elaborate on this?
Participant	Well though as young people, be it male or female, we are adventurous, we want to explore the world, women are always more concerned about health than men, that's the way I see it, I guess it is even explained by the number of men accessing or utilizing health care services. So men are usually casual or not very concerned about condom use, I guess it is for the same reason of less fear of HIV and for pregnancy, they will not be pregnant so again they are not directly affected by pregnancy hence they are not much concerned.
Researcher	You have talked about unemployment as one of the risk factors to HIV, expand on this
Participant	Unemployment leads to severe financial hardship, debt, stress, family tensions and breakdown, boredom, shame and stigma, increased social isolation, erosion of confidence and self-esteem and when all these happens to someone it is likely that one will engage in multiple partners or engage with older men or women who can be a source of income, hence putting oneself at risk because when you are dependent on someone else, you cannot be at equal level to negotiate even for safer sex, the ultimate goal is to make a living and if it will come at a price where one has to do anything, one will be forced to do such. Unemployment makes one to have low self-esteem, imagine with low self-esteem, it's difficult to negotiate and be firm about your own choices or decisions. The stress, tensions, stigma can even lead one to abuse drugs and alcohol to try and forget the challenges one is going through and this too will put one at risk of HIV. Some people end up even resorting to commercial sex work to make a living and again this another risky behaviour to HIV, so really unemployment breeds a lot of problems, it's really tough out there.
Researcher	Ok so you are a student, so the issue of unemployment does not affect students, what's your view on this?
Participant	Well yes for now when we are still students, but as you know unemployment is high even among graduates, as we graduate we join the unemployed cohort, so the same situation will present its self as I have said previously. Again though we are still students and we get allowance, the allowance does not meet our needs, life is expensive and the allowance does not cater for all our needs. So it's the same when you are a student or unemployed youth because we face the same challenges, hence we find ourselves engaging in all risky behaviour irrespective of whether one is in school or out of school youth.

Researcher	Ok thank ,the issue of young men and women who have sex with same sex partners that you talked about, can you please explain that
Participant	Ok alright, nowadays the issue of gays, lesbians are common among young people, though not a significant number, but we have seen people coming out to say they are gays, lesbians or bisexual in our societies, even here in school we have some. And most gay and bisexual practice anal sex and it is the riskiest type of sex for getting HIV or even passing it to others. Again even among gays, lesbians and bisexual, still the issue of not using condoms consistently is prevalent just like in heterosexual relationships. 'Gape' (also) negative attitudes about gays and lesbians may discourage gays and bisexual men from getting tested for HIV and finding health care to prevent and treat sexually transmitted infections including HIV. As the society we are still struggling with accepting that we have this group of people, though I am not sure even as a country our laws do not acknowledge gays and lesbians even their marriages, so this makes it difficult to access health care services due to stigma and discrimination, so issues like HIV testing that one has to do at least once a year, more especially for this cohort, it becomes difficult, hence increasing the risk of infection. Nowadays there is Prep for high risk groups and the gays and lesbians could benefit from it, but like I have said it's not easy for this group to access health care services.
Researcher	Ok, so what is Prep?
Participant	Okay, Prep is...., it stands for ehh, ijoo I have forgotten. Ohh it stands for pre-exposure prophylaxis, it is medicine people at high risk for HIV take to prevent getting HIV from sex. When taken as prescribed, Prep is highly effective for preventing HIV, it means just like any other medication adherence is important. So this is a good initiative but like I said issues of access due to stigma and discrimination might prevent this group to access these services.
Researcher	Ok thank you, let's talk about people who are born HIV positive that you talked about earlier, elaborate on that
Participant	Yes there are people who were born HIV positive, before the program of PMTCT that is prevention of mother to child therapy, or maybe those whom their mothers did not enroll for the PMTCT program and ended up being HIV positive. The issue of disclosure of HIV status to the partner or any other person is a problem. There is still a lot of stigma and I guess they have a lot to deal with, they might just hate or resent their parents for their condition. This will bring about anger and it can lead them to do anything, maybe have multiple partners, substance abuse, and these are the risky behaviors to HIV. They

	may also decide not to take the ARV therapy, which on its own reduces the chances of infecting the other person
Researcher	You have talked about what young people do that can put them at risk of HIV, do you think there are things that you are doing that can put you at risk of HIV infection? And in what ways are you putting yourselves at risk?
Participant	Well hahaha....(laughing), I'm a young person, so yes there are things that I have mentioned in general for my age mates that I too at times, find myself in a tight corner, for example inconsistent use of a condom. Again too much freedom, yaa too much freedom, since we are not staying with parents we don't have anyone to control us and no one says you don't have to go there or so, we just go anywhere we want and see whoever we want to see at any time. Sometimes you really want a stable relationship but unfortunately you might meet someone who is not committed and it will look like you are charging partners frequently, which happens mostly where you will have a relationship that lasts for three (3) months, thereafter there is breakup and again you move on to the next one, so it's like having multiple partners. Relationships are difficult, where there are two (2) people involved, it is not easy.
Researcher	In your opinion what are some of the consequences of getting HIV?
Participant	I think though nowadays unlike in the past before ARV, there was high mortality rate, nowadays mortality rate might have decreased, though people might die due to HIV related stress like committing suicide when one realize that they are HIV positive. Failure to accept the HIV status and not enrolling into the ARV therapy program, hence opportunistic infections will take its toll. Major consequences are social and economic impact. It is not easy to relate or have relationship unless one has accepted their HIV status.
Researcher	Ok talk about the condoms that you have talked about in school
Participant	Ok condoms are available in school and in most areas around the city, I think condom distribution is ok.
Researcher	Apart from condoms are there any other HIV services provided in school?
Participant	Yes, though there are times where we have wellness days, where different health services will be provided by different organizations from outside the school. Again in school there is counselling and information sharing by the use of booklets, pamphlets on different health topics. I think that's all that happens in school since I started with my studies.

Researcher	What are your general impressions of the services you have just talked about that are provided for students in HIV and AIDS programming in IDM and Botswana?
Participant	I think they are ok, just ok, where we are with the high incidence of HIV among young people every year, more has to be done to address the predisposing factors to HIV and that should be coupled with behaviour change, and initiatives more especially by government to create opportunities for employment.
Researcher	So in conclusion do you have anything more to add about HIV risk factors
Participant	Well I think I have shared a lot with you, but my main worry or concern is the issue of unemployment like I have said, if young people can get opportunities of working, be it graduates or unskilled youth, this will reduce issues of multiple partners I guess. To me employment on its own its empowerment, so I guess that is the direction if as a country we want to win the war against HIV more especially among youth.
Researcher	Ok alright
Participant	yaa
Researcher	Ok let me thank you for participating in this study, thank you
Participant	Thank you

Participant 7 interview transcript	
Researcher	Tell me about your views on your own risk to HIV
Participant	My own views is that HIV is ammh ammh hah my own view you mean like
Researcher	What are your views about your own risk to HIV, do you consider yourself to be at risk of HIV
Participant	Oh okay, no I don't, because mmh mmh all the time I have sex I use protection and I also have one partner, I don't have many partners
Researcher	Ok so what is your general views about the risk to HIV
Participant	My view is that if we do not take care well, you can be at high risk, for example not using protection, having many sexual partners, men who have sex with other men are at high risk of getting HIV and also the sex workers because sometime they do not use protection with the other clients they have. Also I think young people do not take their health serious for example the use of alcohol, they will drink too much it will lead them to, when going to bed, they will be high like drunk so they would not see what is happening during sexual intercourse, maybe one might meet with someone or a men who is HIV infected and the man will claim that they used protection the previous night, while he did not.
Researcher	You have talked about using protection and young people not using protection, please explain what you mean by protection?
Participant	Ooh ok I mean the use of condoms
Researcher	What is your understanding of the use of condoms?
Participant	Well I know when we talk about the use of condoms it means consistent use of condoms that is, all the time during sexual intercourse, one has to use a condom and correctly.
Researcher	Ok you have also talked about men having sex with other men, can you elaborate on this
Participant	Yes yes, there are gays in our communities and we know that they practice ahh anal sex and it considered to be the highest risky behaviour, therefore with the growing number of gays in our communities it means they too are at risk
Researcher	As you talk about communities what are you referring to
Participant	Ooh communities I mean in our different places in Botswana we have gays even here in school we have them so they are at risk as young people.
Researcher	You have said young people do not take their health seriously why
Participant	Yes in most cases young people are never concerned about their health, my view is that we do not fear HIV maybe it's because we do not really see people dying, young people are concerned about other things. They are always concerned about what they going to

	do to have money to go out and money for drinks or alcohol and they will do anything to get the money irrespective of what happens, hence I think young people are not concerned about their health. Also the love for money can lead to young people having multiple partners, because if one has many err many partners it means many sources of money which increases the risk of HIV.
Researcher	Talk more about many sexual partners that you mentioned earlier
Participant	Having many sexual partners yaa, one may go to have sex with this one and then the partner may go and have sex with another person and they would not know their HIV status so that can make the HIV will circulate among the partners
Researcher	What are the factors that lead young people to have multiple sex partners you have talked about
Participant	I would say unemployment and the need for money, the other partner will promise a girl that if we have sex I will give you for example two hundred pula (P200) if we have unprotected sex I will give you more money so they end up being at risk of HIV.
Researcher	Ok can you share more on unemployment, how is it a factor?
Participant	Well unemployment contributes to young people engaging in sex work or having multiple partners, one needs money for their upkeep, so if one is not working, a source of money can be trading sex for money such that they can make a living, life is very tough out there.
Researcher	So does that mean only unemployed youth are the ones that are having multiple sex partners and they trade sex for money?
Participant	No no, it happens every many people even here in school, or maybe I can say unemployment and those who earn little and for students the allowance is too little, it does not cater for all the needs of a student, so some they resort to multiple sex partners
Researcher	In your opinion what are the consequences of getting HIV
Participant	Consequences of having HIV is that there is stigma around the community, people may look at you in a certain way as if having HIV is a bad thing, while some of us we may be born with HIV but we may not realize or know and then when you are born with that HIV, some people they do not test, they will just realize when its bad, when there is the presence of signs and symptoms of HIV
Researcher	Are you aware of the HIV services that are given to the mother during pregnancy
Participant	Yes I know, there is PMTCT aah
Researcher	What is PMTCT
Participant	It is eer eer mmmh, it stands for prevention of mother to child transmission of HIV, yes
Researcher	Ok elaborate more on it
Participant	Well PMTCT is a programme for pregnant mothers to prevent HIV to be transmitted to their unborn child, but I do not know what happens when the child is positive after birth

	and the process to tell them that they were born with HIV and when they are supposed to be told. I do not know the process, such that they can accept their status and live positively with HIV. Aah being born with HIV I think it's more devastating than when one acquire HIV due to their doing yaa.
Researcher	You have said that some people may be born HIV positive and may not know that they are HIV positive, how is this possible?
Researcher	Well I am not sure when the mother does or parents have to tell their child that they are born with HIV, I know some parents may hide the child HIV status because they fear how the child will respond, so they do not tell the child. So maybe now when the person is grown up, in their youth time, the signs and symptoms can start to show and this is where mmmh one can go and test. So imagine if you do not know that you are HIV positive, it means one will put their partners at risk of getting HIV. I think being born with HIV is devastating, imagine you did not do anything to end up being HIV positive, you are just born with it, it's sad it's sad and having to deal with this is really challenging. Aah how does one disclose to their boyfriend or girlfriend that they are HIV positive and they were born with it. Yaa I know disclosing ones HIV status is difficult, but I think it is more difficult when you are born with, I can't imagine what I will do, aah I think eer
Researcher	Ok continue, go on
Participant	You know being born with HIV might just break the relationship of the parents more especially the mother with the child. The child will blame the parents and may even resent them and even decide to commit suicide, some may start to have multiple partners because they feel like ii have HIV already and I did not do anything, anger can lead them to do a lot of things that will put them at more risk and even others. Some may leave their homes and stay alone, whereby they will be free to do as they please without parental guidance.
Researcher	Ok tell me more about stigma
Participant	Stigma is there, it is there, I have not seen any young person saying I am HIV positive and I think it is due to the stigma, obviously like I have said some people are born HIV positive and I have never seen anyone talking about their positive status, so its fear of stigma and discrimination. So stigma and discrimination exist even today and it happens a lot.
Researcher	What do you think can be done to address stigma and discrimination?
Participant	Well I think stigma and discrimination are difficult to deal with. At times it's the individual that stigmatize themselves without other people judging like I have said people born with HIV. So really what can be done is increase individual level counselling to address internalized stigma, starting with the inner self to eliminate the anger, blame at individual level. Also engaging families and households in HIV and key population stigma- and

	discrimination reduction activities. Some of these are there already but it to intensify and implement services and programmes for people living with HIV and members of key populations to protect their health and well-being. Coming up with coping mechanisms and ways of accepting and supporting each other.
Researcher	Ok apart from stigma and discrimination, are there any other consequences that you are aware of getting HIV
Participant	Yes, though I think most of the consequences are related to stigma and discrimination, there are effects on one's health, the virus attacks the immune system and weakens it, but due to ARV therapy, the health effects are addressed and one can live a normal life like any other person. Aah the most important thing is for the person to HIV and if they are HIV positive, they accept their status and enroll into ARV therapy
Researcher	Ok so you have talked about parental guidance, what are thoughts about parental guidance
Participant	I would say parental guidance is important, yes more especially for someone who is born with HIV because the parents will provide support and guidance. Parents differ some parents they are too strict, some they are just not strict and the strict parents their children are at higher risk of getting HIV because some will be governed not to go out at any time and those whose parents are not strict can go out any time. And for those with strict parents, time minute they get the chance, they will use that chance to do anything, many things where they can say this is the only chance or the few minutes that I have and this can lead to unprotected sexual intercourse because one will be under pressure for time to go back home. So today most of us we rent as students, our parents are in our home villages, so we are free to do as we pleases because there are no parents to guide us.
Researcher	What are your general impressions of the services provided for students in HIV and AIDS programming in IDM and Botswana?
Participant	I am impressed about HIV services offered in school because there are days that they do service delivery to students by offering HIV testing than us going to the clinics outside some people are shy to go the government facilities out there, so in school it is more convenient for the student because they just walk a few metres and access the services.
Researcher	How often does this happen
Participant	Usually there are wellness days each semester, but at the same time, there is the student welfare clinic where as students we can go anytime when it's convenient for us.
Researcher	So what services are provided at the student welfare clinic you mentioned
Participant	There is counselling, they provide information on HIV, and counselling on general issues like students who have challenges be it accommodation, social issues, health, where students are not well, this is the place to go.

Researcher	Do you have access to condoms in IDM or anywhere else
Participant	Yes we do, condoms are placed in the bathrooms across the campus, it is just for us to pick them
Researcher	So you are happy the way it is done or the way HIV services are provided in IDM
Participant	Yes happy
Researcher	Ok how about HIV services provided in Botswana especially for young people
Participant	Well yes, there are HIV services that are provided to young people in Botswana through youth friendly services clinics where young people are free to go without fear of meeting a parent or relative. At the same time young people do have access to health facilities country wide where every Motswana access the HIV services, so there is variety of options in terms of access, it is up to us young people to utilize these services. A lot has been done honestly to cater for young people eer
Researcher	Ok is that all
Participant	A lot has been done, we are taught in school about the dangers of HIV, we have information, all that we need to do is put the information into practice, behaviour change and for behavior change to happen, now interventions have to focus on individual level counselling for acceptance
Researcher	Is there any other thing you would like to talk about regarding this interview
Participant	For me I will advise that for unemployed youth and school dropouts and even for the general public, I think government should hire people to do house to house because some people are not free to go to the facilities like I have said, so if they do house to house it will be more convenient for people to know their HIV test.
Researcher	Any other thing you want to add
Participant	No im done
Researcher	Thank you very much for your participation
Participant	Thank you

APPENDIX 9: EDITORIAL CERTIFICATE



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01 December 2021

Dear Sir/Madam

SUBJECT: EDITING OF DISSERTATION

This is to certify that the dissertation entitled 'Perceptions of risks of Human Immunodeficiency Virus infection among students in the Institute of Development Management, Gaborone, Botswana Campus' by Kegomoditswe M. Malefho has been copy-edited, and that unless further tampered with, I am content with the quality of the dissertation in terms of its adherence to editorial principles of consistency, cohesion, clarity of thought and precision.

Kind regards



Prof. S.J. Kubayi (DLitt et Phil)