



UNIVERSITY OF KWAZULU-NATAL

**AFRICAN FOREIGN STUDENTS' BEHAVIORAL PRACTICES TOWARDS THE
UNIVERSITY OF KWAZULU-NATAL HIV AND AIDS SUPPORT PROGRAMME
AT HOWARD COLLEGE CAMPUS**

BY

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Submitted to the School of Applied Human Sciences,

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in fulfillment of the requirements of a degree of Master in Social Sciences

in the Centre for Communication, Media and Society (CCMS)

December 2018

Ethical Clearance Full Approval Reference Number: HSS/2117/017M

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Acknowledgements

“Except the Lord build a house, they labour in vain those that build it. Except the Lord keep the city the watchman waketh but in vain” Psalm 127 vs 1.

To God be the glory honor and adoration for sparing my life till this moment and guiding me throughout the duration of this dissertation. It was not easy. It was Gods favour. The success of this dissertation is due to many factors and because of this I must express my gratitude to the following:

Thanks go to my supervisor, Dr. Lauren Dyll, for mentoring and giving me the much-needed confidence, support and attention to finish up the writing of this dissertation. I also must thank the Director of the Centre for Communication, Media and Society (CCMS), Professor Ruth-Teer Tomaselli for the financial support they gave me during 2018 registration. Thank you for allowing me to carry on this research in a collegial space, atmosphere and structure the Centre has created for decades.

Indeed, I must thank the participants of my study, the African students at the Howard College of the University of KwaZulu-Natal, who like me have endured waves of xenophobia and challenges but continue to pursue their goal of a world class academic degree. Further thanks go to my cousin, Dr. Itunu Bodunrin and specific friends who have become brothers such as Tolu Ojolo, Tobi Alabi, Samson Dickson Ojako, Ajibola Adigun, Queen Thulile Zama, and others who have supported me in one way or the other since I arrived South Africa in 2014.

Finally, a sincere thank you to my family back in Nigeria, the Okagbares most especially Mrs. Patricia Abosedo Akpasi and the Smiths, for being supportive in my four-year academic sojourn away from home. A vacuum will be created if I fail to thank Phiwe Makaula for her persistent motivation, assistance and patience during the corrections and her feedback on this important piece of academic work.

Abstract

This study investigates African foreign students' behavioural practices towards the University of KwaZulu-Natal HIV and AIDS support programme. The participants of the study consisted both male and female between the ages of 26- 30 students from college of humanities, college of Agricultural engineering and science and the college of Health science of the Howard College Campus of the University of KwaZulu-Natal, Durban, South Africa. The Health Belief Model was adopted in this study to explore the factors that influence African foreign students' behavioural practices in response to HIV prevention at the University of KwaZulu-Natal. The study is both quantitative and qualitative. Questionnaires and semi-structured interviews were used in data collection.

The study revealed that foreign students' behavioural practices towards UKZN HIV and AIDS Support Programme is limited to HIV and AIDS testing, with very few students knowing about other activities of the programme. This implies that the programme needs to create more awareness regarding its activities and active participation of all students, especially international students who mostly feel disengaged within the school.

The study also found out that the major barriers that hinder African foreign students from joining the HIV and AIDS support programme include: lack of adequate publicity about the programme, foreign students home country's perception of HIV and AIDS and fear of hidden costs related to programme activities. When these things are taken into consideration, it will increase general awareness of UKZN African foreign students' participation in the programme. It is indeed a fact that the way South African students see HIV and AIDS is quite different from how students from other countries view HIV and AIDS scourge. This study therefore aims to provide knowledge of the factors that influence African foreign students' behavioural practices towards HIV and AIDS support programme, so as to improve the implementation process of the program for better efficiency.

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List of Acronyms and Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral therapy
BCC	Behaviour Change Communication
CDC	Centre for Disease Control
CHASU	Campus HIV and AIDS Support Unit
CSE	Comprehensive Sexuality Education
DOE	Department of Higher Education
HBM	Health Belief Model
HCT	HIV counselling and testing
HEAIDS	Higher Education and Training HIV/AIDS Programme
HEI's	Higher Education Institutions
HIV	Human Immunodeficiency Syndrome
IPPF	The International Planned Parenthood Federation
KZN	KwaZulu-Natal
LGBTI	Lesbian Gay Bisexual Transgender and Intersex
MTSF	Medium-Term Strategic Framework
NDOH	National Department of Health
NSP	The National Strategic Plan
PMTCT	Prevention of the mother to child transmission
PrEP	Pre-exposure prophylaxis
SPSS	Statistical Package for Social Sciences
STDs	Sexually Transmitted Diseases
STIs	Sexually Transmitted Infections
TC	Tuberculosis
TVET	Technical Vocational Education and Training
UKZN	University of KwaZulu-Natal
UNAIDS	United Nation programme on HIV and AIDS
UNESCO	The United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
VCT	Voluntary Counselling Testing

WHO World Health Organization

CHAPTER ONE

INTRODUCTION

1.1. Introduction

According to the 2016 South African mid-year population estimates, the official overall estimation of HIV prevalence rate in South Africa is approximately 12,7% of the total population. The total number of people living with HIV is estimated at approximately 7, 03 million in 2016 (South African mid-year population estimates, 2016). For adults aged 15–49 years, an estimated 18, 9% of the population is HIV positive. Large numbers of this age cohort are located in higher learning institutions (Zuma *et al*, 2016). Today, persons living with HIV and AIDS are present in all nine South African provinces (Zuma *et al*, 2016). The 2016 South African mid-year population estimates have immensely contributed to the country's understanding of HIV epidemic distribution and most especially with regards to changes in prevalence, incidence, risk behaviour practices and the use of antiretroviral therapy (ART).

However, much progress has been made in Eastern and Southern Africa where half of the people who are infected with HIV reside (Moyo, Young, Gouws, *et al*, 2019). Between 2010 and 2016, new HIV infections in eastern and southern Africa declined from 1.1 million [1.0 million–1.2 million] to 790 000 [710 000–870 000], a 29% reduction (Global AIDS monitoring, 2017). This is an important achievement in a region that contains more than half of the world's people living with HIV. This progress is due to several policies geared towards achieving Agenda 90-90-90¹ launched at 20th International AIDS Conference in July 2014 in Melbourne, Australia.

The strategies that were developed to reach the 90-90-90 goals included: self-testing, voluntary medical male circumcision, pre-exposure prophylaxis (PrEP), and efforts to protect human rights and establish an enabling environment for service delivery (Matheson, Brion, Sharma *et al*, 2017). The operations of these strategies have been hindered by age-specific and sex-specific challenges, especially in South Africa and KwaZulu-Natal, the province with the highest prevalence (Blaizot *et al*, 2017). To fast track better achievement of 90-90-90 goals, more population and cohort specific interventions would need to be made (Oldenburg *et al*,

¹ Agenda 90-90-90 was launched to have 90 percent of people know their status, 90 percent of those living with the virus undergoing treatment, and 90 percent of people on treatment on viral repression (UNAIDS, 2014).

2016). In context of this study, Higher Education Institutions (HEI's) need to be included in these interventions.

Although the universal health goal has succeeded in reducing prevalence of HIV and AIDS by implementing initiatives curbing its spread, it is very important to understand aspects of behavior from African foreign students because they form a significant population among University of KwaZulu-Natal (UKZN) postgraduate students. More than 5% of the postgraduate population (2,464) are international students from Africa (UKZN, 2018). In this light, the research examined a population within UKZN with the aim to understand the factors that influence their behaviour towards HIV and AIDS support programme at the university.

Since there is a higher prevalence among young adults, especially young women (UNAIDS, 2014; Harrison *et al*, 2015) and a lot of them are found or will soon be in the institutions of higher learning, several interventions such as voluntary male circumcision have been deployed in tertiary institutions. Higher learning institutions in South Africa have, therefore, become one of the target spaces for HIV and AIDS interventions. This study explores factors that influence African foreign students' behavioral practices in HIV and AIDS response programme at the University of KwaZulu-Natal (UKZN), Durban, South Africa.

1.2. Problem statement and significance of the study

The intervention strategies implemented to curb the spread of HIV/AIDS may to a large extent focus on the peculiar needs and the socio-cultural imperatives of the local people. However, in a diverse setting like the University of KwaZulu-Natal where we have people from various countries, cultures and socio-political background. It becomes very important to consider the cultural, social and structural nuances that might surface in the prevention and treatment of diseases. This I will be taking cognizance of the fact that health and illness perception, treatment and coping strategies are largely influenced by the socio-cultural background of the people involved. The findings of this study will therefore hope to further strengthen the heterogeneous approach adopted to prevent the spread of HIV and AIDS with the UKZN Support programme.

The challenges often described as impediments in health prevention programme, with regards to promoting pro-social behaviour, are often maintained and sustained through, cultural, structural and social barriers (Burns & Fenton, 2006). These intervening spheres of influence on health seeking behaviours motivated a need to examine UKZN students' behavioural response to HIV and AIDS prevention programme. Within this highly complex and dynamic socio-cultural context, the prevalence of the epidemic within South Africa and the province has

made it imperative to examine how African foreign students at UKZN behave in response to the HIV and AIDS support programme. Addressing HIV and AIDS epidemic requires a combination approach that is multicultural and all-inclusive (Gouws, 2002; Marconi *et al*, 2008; Helm, 2013; Becerra, Bildstein, and Gach, 2016). Hence, this research will provide a framework to understand the factors that influence the behavioural practices of African foreign students in UKZN HIV and AIDS support programme (UKZN, 2005).

Socio-behavioural factors such as: having multiple sexual partners, having unprotected sex, use of alcohol before sex and being exposed to sexual violence are part of the reasons attributed to the prevalence of HIV and AIDS (Dutta *et al*, 2017). Also, some underlying structural factors such as wealth disparities and high level of migration have led to the high number of HIV and AIDS infected people in South Africa (Zuma *et al.*, 2016). Certain individuals who are economically buoyant use their wealth to lure female students into engaging in unprotected sex in exchange for money, most female students fail to stay away from this trap as they need the money to meet their needs (Varga, 1997; Leclerc-Madlala, 2003; Nkomazana and Maharaj, 2014).

In an effort to reduce the rate of unprotected sex, awareness and the promotion of condom use through social and behavioral change, media campaigns have been implemented in South Africa and the country has a large condom distribution programme (Ashmore and Henwood, 2015; Titus, 2017). In the 2012 and 2013 fiscal year, more than 500 million free condoms were distributed at community hospitals, clinics and university campuses (NDOH, 2007). Other biomedical interventions include Voluntary Medical Male Circumcision (VMMC) which was introduced in 2010 for HIV prevention in South Africa (Peltzer *et al*, 2012). Other areas of progress in HIV interventions include a large ART programme that is continually being improved (UNAIDS, 2014).

This study explores factors that influence African foreign students' behavioral practices in response to the HIV and AIDS support programme at Howard College Campus of UKZN. UKZN is an institution of higher learning that is poised at leading new frontier in academic and research production, hosting students across national, geographical and regional boundaries of the adult population (UKZN, 2018). The university therefore is a host to an age group that has been identified to be crucial and target in HIV and AIDS reduction programme (UNAIDS and WHO, 2006). According to Tansel *et al.*, (2013), the prevalence of HIV and AIDS is more dominant among adult population of 15 years and above; hence, it is crucial and

has been a focal point for the institution to join other societal stakeholders in the reduction of the spread of HIV.

Therefore, UKZN in conjunction with the provincial Department of Health has rolled out several initiatives and programme designed to combat the spread of HIV in the province. These initiatives are as follow: Peer Education, Women's Forum, Men's Forum, Positive living, Lesbian Gay Bisexual Transgender and Intersex (LGBTI) and Abstinence Forum while the Department of Health initiatives advocate being faithful, free distribution of condoms and voluntary medical male circumcision to stem the tide of the virus (DOH, 2016 and UKZN website cited in South African voices museum, 2017).

UKZN HIV and AIDS Support Programme has been designed to address HIV and AIDS prevention, care and treatment amongst students, providing counseling services, healthy sexual practice information amongst other responsibilities geared at curbing the spread and control of the disease (UKZN HIV and AIDS Policy, 2005). However, for this programme to be effective, it is important the University provides an optimum response programme that accounts for all the various student demographics of which international or foreign students is a major category. According to Dominguez-Whitehead and Sing, (2015), in the last eight years there has been a three-fold increase in the number of international students enrolled in public tertiary institutions in South Africa. Furthermore, a study by the South African Schoole, (2006) estimated that there were 47 000 international students studying in South Africa who are from other African countries.

The number of foreign students enrolled in South African institutions has increased progressively from 34 770 in 1999 to 87 000 in 2013 (Mokhothu and Callaghan, 2018). South Africa accounted for 58 percent of all foreign students studying in the country (Mokhothu and Callaghan, 2018). With this increase in the number of international students, the challenge for educational institutions such as UKZN is to ascertain international students' behavioural practice in health promoting programmes especially HIV prevention in order not to infect or be infected with HIV whilst studying. According to UKZN Information Communication Service Department report (2017) and the International Office UKZN 2017, there are about 2,000 international students enrolled at the five campuses of the University (UKZN Institutional Intelligence Report, 2018). Suffice to say, this category represents a significant segment of the university's population and therefore, measures must be put in place to encourage international students to take an active role in HIV prevention programmes. This study explores factors that influence African foreign students' behavioural practices in

response to HIV prevention at UKZN. Flowing from above and haven established that student migration have increased in South Africa more recently, Nichola *et al.*, (2016), observation of the vulnerability of migrant to the epidemic of HIV and AIDS becomes very useful. The authors argued that in the understanding of the lives of migrants, it is very important to pay attention to how their health and wellbeing is affected especially through a careful examining of the complex fabrics of social, cultural and political issues that might affect their health. It is within this spectrum that this study seeks to examine the behavioural practices of African foreign students in relation to UKZN HIV and AIDS support programme. As an African foreign student, I am aware of the cultural and social complexities that underline health seeking behaviour especially as it relates to HIV and AIDS from my country and how it differs from what is applicable. For instance, because HIV and AIDS is not so prevalent in Nigeria, there is still a lot of stigma around people living with the infection and we do not have several testing units within our communities like it is in South Africa. As such, even after relocating to South Africa where HIV and AIDS is very prevalent and regular examination of status is highly recommended, I still find it very challenging to embrace the process. This might be one of the various behavioural issues influencing African foreign student participation in the HIV and AIDS support programme at the Howard College Campus.

Over the years, HIV and AIDS have attracted research interest of scholars across disciplines globally and locally (Eldredge *et al*, 2016). The current climate where a huge number of students in tertiary education in South Africa are international students should make those running health promotion programmes concerned about their health. Such students are at risk of HIV infection because of a combination of individual, behavioural, relational, community, and societal factors which contribute to the level of risk sexual behavioural practices (Armstrong *et al*, 2016). Understanding African foreign students' behavioural practices towards HIV prevention programme can help identify various opportunities for prevention. Thus, this study is motivated by a number of issues related to creating a holistic and all-embracing HIV support programme within university systems in South Africa especially UKZN.

According to Franco (2014), African foreign students generally face unique health and social challenges related to poverty, unemployment, immigration, settlement issues, and systemic racism in school environment, the justice system, workplaces and elsewhere. This kind of presumed discriminative environment fuels fears that publicity around rates of HIV infection within the community of migrants may fuel xenophobic attacks and may create difficulties in

accessing services, housing and employment (Tharao and Remis, 2002). HIV stigma may position people as facing a dual segregation both from the mainstream society based on their race, ethno-cultural or immigration status and from personal networks of social and emotional support based on HIV status (Skosireva and Holaday, 2010). These conditions always provide fertile ground for denial, silence and barriers of behavioral practice in HIV prevention, treatment and support activities among African foreign students (Tharao and Remis, 2002; Skosireval and Holady, 2010).

From the literatures discussed above, the factors influencing the participation of foreign migrants in various HIV and AIDS programs are behavioural laced with cultural and perceived discriminatory beliefs they may face from the South African society. So foreign immigrant in a bid not to draw attention to themselves will rather not participate in HIV testing for the fear that if HIV is known to be prevalent among immigrant, it may fuel xenophobic attacks. Prevalent thoughts and perceptions as this in literature became a major motivation to examine the factors influencing the participation of African foreign students in UKZN HIV and AIDS support programme.

1.3. Research aim, objectives and questions

The aim of this study is to understand factors that influence African foreign students' behavioural practices in response to HIV and AIDS support programme at Howard College Campus of the University of KwaZulu-Natal.

The objectives are to:

1. To understand the influence of perceived risk of involvement on African foreign students' behavioural practices towards the UKZN HIV and AIDS support programme.
2. To determine the influence of perceived benefit on African foreign students' behavioural practices towards the UKZN HIV and AIDS support programme.
3. To ascertain what barriers, militate against African foreign students' behavioural practices towards the UKZN HIV and AIDS support programme.
4. To understand how a cue to action can influence African foreign students' behavioural practices towards UKZN HIV and AIDS support programme.
5. To determine the influence of self-efficacy on African foreign students' behavioural practices towards the UKZN HIV and AIDS support programme.
6. To examine the level of behaviour practice of African foreign students towards the UKZN HIV and AIDS support programme

In this light, the following research questions drive this study:

1. What are the factors influencing African foreign students behavioural practices in response to HIV and AIDS prevention at the UKZN?
2. How does the perception of risk influence African foreign student's behaviour towards the UKZN HIV and AIDS support programme?
3. How do the perceptions of benefit influence African foreign student's behaviour towards the UKZN HIV and AIDS support programme?
4. What are the perceived barriers that militate against African foreign student's behaviour towards the UKZN HIV and AIDS support programme?
5. How can a cue to action influence African foreign students' behaviour towards the UKZN HIV and AIDS support programme?
6. What role does self-efficacy play in African foreign student's behaviour towards the UKZN HIV and AIDS support programme?
7. What is the level of behavioural practice of African foreign students towards the UKZN HIV and AIDS support programme?

1.4. Framing the study: Theoretical Framework and Methodology

The study is informed by the behavior change paradigm of health communication and adopts a mixed method approach in collecting and analyzing data.

1.4.1. Theoretical Framework

The theoretical underpinning for this study is Hochbaum, Rosenstock and Kegels Health Belief Model (HBM) working in the U.S. Public Health Services, in response to the failure of free tuberculosis (TB) health screening programme (D'Souza *et al*, 2011), In spite of its development in the 1950s, the model is still used today to attempt to explain and predict health behaviours. This is done by focusing on the attitudes and beliefs of individuals (French, *et al*, 2017).

The HBM has been adapted to explore a variety of long-term and short-term health behaviours, including risk sexual behaviours and the transmission of HIV (Walker 2004; Lin, Simoni and Zemon, 2005; Madondo, 2010; Jeihooni *et al*, 2017; Ghaffari, *et al*, 2018). HBM is based on the understanding that a person will take a health-related action (i.e. use of condoms) if that person: feels that a negative health condition can be avoided; has a positive expectation that by taking a recommended action they will avoid a negative health condition; and, believes that

they can successfully take a recommended health action (D'Souza *et al*, 2011). HBM proposes four constructs representing the perceived *threat* and perceived *susceptibility*, perceived *severity*, perceived *benefits*, and perceived *barriers* (Jones, Smith, and Llewellyn, 2014). These concepts were proposed as accounting for people's "readiness to act." An added concept, *cues to action*, would activate that readiness and stimulate other behaviours. A recent addition to the HBM is the concept of *self-efficacy*, or one's confidence in the ability to successfully perform an action. This concept was added by Rosenstock and others in 1950s to help the HBM better fit the challenges of changing habitual unhealthy behaviours (Abiva *et al*, 2012).

Due to the internationalization of South African universities, cohort-based health interventions may treat postgraduate university students as of the same cohort with the same health beliefs inappropriately. While cohort based interventions may have been deployed in tertiary institutions to treat and prevent the prevalence of HIV and AIDS, tertiary institutions with a large proportion of foreign students such as the UKZN may have designed these interventions with the treatment of the cohort as a homogenous group whereas cultural, social and structural impediments that are peculiar to international students from other African countries may affect these interventions. The HBM model was adopted in this study to understand the health-related behaviors of UKZN African foreign students as it relates to HIV and AIDS epidemic. The theory will unpack various approaches in which African foreign student's behaviours makes them susceptible to HIV and AIDS.

1.5. Research methodology

This study will use a mixed method approach for collecting and analyzing both quantitative and qualitative data in the research process within this study (Creswell, 2013). The rationale for using mixed methods is that, the study seeks to explore and explain the nature of HIV and AIDS behavioural practices among African foreign students at UKZN. As such, quantitative and qualitative approach are simultaneously required to examine the objectives of the study. When used in combination, quantitative and qualitative methods complement each other and allow for a more comprehensible analysis (Tashakkori and Teddlie, 2003). When an investigation seeks to understand behavioral practices among group of people, and such phenomenon is not directly observable, then the qualitative approach becomes appropriate. Subsequently, the measurement of perceptions applies to a series of variables about the identified social phenomenon. This is where the quantitative aspect of this study becomes very relevant. Due to the nature of the study involving attitudes and beliefs, the qualitative research

method is needed to solicit opinions while quantitative data gathered through surveys is used to get a snapshot of participant's profile and perceptions.

Table 1.1: Use of research methods in collecting data

S/N	QUALITATIVE DESIGN	QUANTITATIVE DESIGN
1	Examining the influences of perceived risk, perceived benefit on the participation of African foreign students in UKZN HIV and AIDS support programme.	Respondents demographical information (sex, age group, region of origin, marital status, sexual orientation, faculty of study, level of education, and religion).
2	Exploring the common barriers that militate against African foreign students' participation in UKZN HIV and AIDS support programme.	To explain the relationship between the perception of self-efficacy and its influence on African foreign students' participation in UKZN HIV and AIDS support programme
3	To exploration the narrative of African foreign students concerning UKZN HIV and AIDS support programme	To examine the behavioural practices of African foreign students' participation in UKZN HIV and AIDS support programme.

Source: Authors compilation, 2018.

1.6. Structure of dissertation

This dissertation is divided into six chapters:

Chapter one will provide a succinct introduction of the study background, problem statement and description of the study location which is the University of KwaZulu-Natal. Part of the reasons that necessitated this study is the lacunae discovered in literature in the engagement and involvement part of foreign nationals and especially African foreign nationals in various HIV and AIDS reduction programmes across the country. The literature review revealed that various factors influence African foreign students' participation in HIV and AIDS response

programme including testing. These reasons are expanded in chapter two. The study underpinning theory, methodology and key questions were also carefully delineated.

Chapter two provides a critical insight into existing literature on the prevalence of HIV and AIDS globally, continentally and locally. It carefully accessed the various approaches that are marshaled at curbing the spread of the diseases with a clear focus to locate the gap this research seeks to fill. Among the various issues discussed was information on the prevalent nature of risky sexual behaviors among youths.

Chapter three explains the theoretical framework for this study and carefully discussed the relevance of the theory to the study. The theoretical framework provided an empirical approach at examining people's health seeking behavior. Health Belief Model was adopted by this study.

Chapter four explains why mixed method research design became appropriate for this study. It provided a detailed description of the research approach, sample size and sampling strategy, data collection and analytical styles used in the study. This chapter also outlines the limitations of the field experience.

Chapter five discussed the findings of this study gathered from the in-depth interviews conducted and survey instrument administered. The perception of African foreign national regarding participation in UKZN HIV and AIDS response programme was carefully presented. The challenges, limitations and push/pull factors influencing participation were carefully discussed. The findings were organized thematically and discussed in line with theoretical propositions and scholarly arguments as contained in the literature review.

Chapter six summarizes the conclusions and major findings emanating from the study. It carefully provided a summary of how the overall research aim and objectives were addressed. The dissertation concluded by recommending areas for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This chapter discusses the relevant literature that contextualizes the study in terms of a brief overview of HIV and AIDS globally (Global AIDS Report, 2017), and within Africa, particularly South Africa (Reddy and Frantz, 2011; Mutinta *et al*, 2012, 2013; Global AIDS Report, 2017). It then narrows its focus to provide a discussion on HIV and AIDS as it relates to the study's research site. As such, it discusses HIV and AIDS within the KwaZulu-Natal Province and the support programme and policies offered at UKZN. Previous research conducted with UKZN students and their perceptions of certain methods of HIV prevention will be included (Global AIDS Report, 2017; Mutinta, *et al*, 2012; 2013; Reddy and Frantz, 2011). What differentiates this study from previous research is that it focuses on African foreign students within UKZN and their perceived risks, benefits and barriers in accessing UKZN HIV and AIDS support programme. UKZN policy regarding foreign students, as well as their HIV prevention policy will also be discussed to provide a comprehensive background against which to assess the support programme discussed in this study.

This chapter does not present previous research on HIV generally, but rather on the previous methods of HIV prevention that include both behaviour and social change communication interventions (Scalway, 2010; Cardey, 2011; Francis, 2011; Obregon and Tufte, 2014; Lubombo and Dyll, 2018) as well as biomedical interventions, or a combination thereof (Shumba and Lubombo, 2017; Govender *et al*. 2017). The key theme of risk factors and both the barriers and facilitators of utilising prevention measures and support programme to mitigate these risks is central to the discussion (Fennie and Laas (2014).

2.2. A Global Overview: HIV prevention and Higher education

HIV and AIDS is a significant global health issue (Kartikeyan *et al*, 2007; Knipe *et al*, 2013; Knipe and Howley, 2013). Studies show that AIDS remains the fourth leading cause of death globally (Kartikeyan *et al.*, 2013) and this could continue for a while until such a time that prevention efforts become effective and a global acceptable and potent vaccine is made accessible. Several studies have been conducted on the curative treatment in HIV and AIDS at the global level to the grassroots on how to combat this threat of HIV (Knipe & Howley, 2013 and Diamond, 2014).

Reviewed literature has shown institution of higher learning have identified HIV prevention methods that are mainly meant for knowledge, awareness, and practices behavior in the institution (Reddy and Frantz 2011; Mberia and Mukulu 2011), while Reddy and Frantz is of the argument that high level of HIV and AIDS knowledge is not sufficient in itself in behavioral practices change campaign among universities students in South Africa. Thanavanh *et al*, (2013) acknowledged that the challenges young people face is greater than exposure to risks, including, lack of correct health information, lack of access to adequate reproductive health services, economic exploitation, changing lifestyles, regional, cross border conflicts and global disasters, these are all contributory to the spread of HIV and AIDS and other related sexually transmitted infections.

Kayode and Ogu (2011) ascertain the view that young people due to hormonal influence are more vulnerable physiologically to HIV, many of which have not be educated on sexual behavioral practices, but most have engaged in uncontrollable behavioral practices in unprotected sex. Furthermore, other researchers also examined that, involving in activities of sexual practices is a signal of being “grown up” or “launch” into maturity age and getting infected with these sexually transmitted diseases remains mark of admiration. Most of these people are ignorant probably without sound knowledge of their actions and the implications. Edith and Ahmad (2013) are of the conclusion that people of this age, race and gender are vulnerable to HIV infection. The adolescents and adults are prone to a greater risk of the virus because they engage in risky sexual behaviours that may expose them to the risk of contracting sexually transmitted diseases.

Further studies focused on female university students who engaged in cross-generational sex practices (Kaufman *et al*, 2016) for monetary gains to defray expenses of school fees and other needs such as phones, wears and trips (Cockroft *et al*, 2010). This intergenerational sex appears to be very common among South Africa young generation, it serves as a source of spreading the virus infection (Ndabarora and Mchunu, 2014; Celum *et al*, 2015). This sort of relationship exposes female students to HIV due to sexual behavioral practices that are influenced by economic needs and migration status. Since female students from other African countries may have little avenues for work, in order to make ends meet, they resort to cross-generational sex and thus run the risk of cross-border risks of contraction. However; not only young women that engage in sexual behavioural practices are at risk. In South Africa, studies have shown that 56% of young men and 68% of young women of approximately 25 years of age are all at high-risk of sexual behavioural practices (Feinstein *et al*, 2017).

Worldwide, there are several studies on knowledge, attitude, and practice of universities students towards HIV. University students are at high risk of sexually transmitted diseases vis a vis HIV due to their tendency to take part in exploratory behaviours or conduct and their desires for peer social support and their feeling of non-vulnerability (Li., 2016).

Therefore, the effectiveness of HIV and AIDS support programme should be assessed and the factors that either act as benefits or barriers for students to make use of support programme need to be understood. As previous studies have shown, cohort-based interventions are needed to meet the goals of eradication and transmission, more importantly, there is need for custom-fit to make allowances for social-cultural differences even among the same cohorts.

2.3. Global HIV statistics and prevention policy and programmes

The Global AIDS Report (2017) has observed the progress and challenges in the global epidemic. From 2012, there were about 35.3 million people reported to be living with HIV and AIDS (UNAIDS, 2013). Through biomedical interventions and other social interventions, the global rate of infections has decreased with 33% decline of new infections from 2001. Some of the successful interventions like the voluntary male circumcision programmes and the deployment of free testing and access to retroviral drugs have been impactful in the decrease in new deaths and infections from HIV and AIDS. Cohort based interventions have also been used in the reduction of infections among young people, most of whom are at a higher risk (UNAIDS, 2013a). This has slowed the rate of infection from 450, 000 to 370, 000.

However, much progress has been made in Eastern and Southern Africa where half of those who have the virus live (Global AIDS Report, 2017). Between 2010 and 2016, new HIV infections in Eastern and Southern Africa declined from 1.1 million (1.0 million–1.2 million) to 790 000 (710 000–870 000), a 29% reduction. This is an important achievement in a region that contains more than half of the world's people living with HIV. This progress is due to several policies geared towards achieving Agenda 90-90-90 launched at the 20th Global AIDS conference in Melbourne, Australia on July 2014 to have 90 percent of people know their status, 90 percent of those living with the virus undergoing treatment, and 90 percent of people on treatment on viral repression.

As the future of HIV and AIDS epidemic hangs in the balance, the global efforts to fight the challenges of the disease are unparalleled. Up to date, there have not being found a cure for HIV and AIDS. Yet evidence of risk-behavioural practices among individuals including students shows no sign of slowing down, despite the high level of wellness and awareness about the dangers of HIV and AIDS. This is a serious revelation and the complexity of the issue

is compounded with facts that HIV infections are particularly high among 15 to 49 years' cohorts, an age group many students belong (Mutinta *et al.*, 2012) hence the need to conduct this research study.

2.4. Africa, HIV prevention and Higher Education

The HIV and AIDS epidemic is a public health public challenge affecting African communities with disproportionate rates of infection particularly among young people (UNAIDS, 2014a). Social change communication has been acknowledged to be a major factor in the increase in knowledge and awareness of HIV and AIDS and changing attitudes and behaviours (Scalway, 2010; Tufte and Obregon, 2014). The effectiveness of the use of comic books was shown in the deployment of such communication on young people in some schools in Nairobi, Kenya (Obare *et al.*, 2013). The study showed that comic books were effective in raising the awareness of young people on good sexual practices to stem infection. The study emphasized the need for age appropriate messaging in order to reach young people (Obare *et al.* 2013).

There are great concerns over stalling in the progress made in the spread of the HIV epidemic especially as expressed in the Joint United Nations Programme HIV and AIDS report (UNAIDS, 2014b; Stover, *et al.*, 2016). For example, a lack of well-defined understanding on information about population movement and the forms of movements, motivations for the social and epidemiological data of the sending and receiving country, and the relationship between migration and HIV infection is not adequately understood (Deane, Parkhurst and Johnston, 2010; Kenyon *et al.*, 2014). University life exposes students to the venture of new experiences as the university environment creates opportunities for risky sexual engagements (Musemwa 2011).

To create efficient and culturally appropriate promotion campaign for any precautionary medium, the knowledge on behavioral practices that are related to reliable adoption of any measure needs to be identified (Dutta, 2008; 2011). Therefore, assessing knowledge on behavioural practices in HIV and AIDS is essential in determining the gaps in knowledge and its relationship with risk factors particularly among African foreign students because some of the knowledge and information they have from their own countries may not be factual either on the basis of a lack of information strategies or because of cultural practices that make new programmes unavailable to them. For instance, students from conservative countries with regards to sexual education would be more reluctant to participate in the Drama Aid programme offered by the University because it is contrary to their religious belief to talk about

sex in public. Hence the need for a study such as this which investigates knowledge of prevention HIV and AIDS behavioural practices among African foreign students.

Universities in Africa have become the source for manpower resource generation and attention centers of future potential leaders of government and (UNESCO, 2016). University students fall within the age range of the people in society that have been most affected by the epidemic and any decimation of this population by HIV infection will affect future development in Africa (UNAIDS, 2016). African foreign students form the most mobile (constantly moving from one country to another) group in any society and if care is not taken, they can continue to spread HIV infection. African foreign students who are already infected for example while at school from their country of origin, will carry the infection into the country at which they will go. It is, therefore, critical to investigate the level of HIV and AIDS knowledge and behaviour practices among this population. Although increased knowledge about HIV and AIDS may not bring about good behavioral practices change, knowledge about the disease is a precondition for change in behavioural practices (Onah *et al*, 2004; Oladipo and Sabiti, 2014; Fawole *et al*, 1999).

Investigating the knowledge and behavioral practices with regards to HIV and AIDS of foreign university students will provide useful information on the students' risky sexual behaviours and hence their vulnerability to HIV. This information will, in turn, give direction on programme design and the necessary interventions to be put in place. To understand the factors that influence African student's behavioural practices in response to HIV and AIDS support programme at UKZN, the study thus aims to examine how behavioural practices are implicated on the knowledge of strategies of prevention on HIV and AIDS among African international students at the Howard College Campus of the university.

The International Planned Parenthood Federation (IPPF) reported in 2011 that Comprehensive Sexuality Education (CSE) emphasizes a holistic approach to human development and sexuality. The United Nations Educational, Scientific and Cultural Organization (UNESCO) (2009) describes the major goal of sexuality education as follows: "*children and young people and adults become aware of the knowledge, skills, and values that will allow them to make a better choice about their sexual and social relationships in a world that are being affected by HIV*".

Research also argued that CSE can delay sex among young people effectively, hence increasing the use of condoms and the overall contraceptives among sexually active adolescents. Therefore, the United Nations Population Fund (UNFPA) (2010) decided to develop a

programme specifically geared towards addressing gender norms and most importantly on male, because male had strong impact on sexual behavioral practices and HIV risk and other sexual related health practices, improvements in the use of condom and reduction in sexual risk behavioral practices.

2.5. African HIV statistics, prevention policy and programme

The spread of HIV remains persistently high in Africa and mostly in the Southern and Eastern part of Africa and among young girls and women in high proportional rate (UNAIDS, 2014c; UNFPA, 2014). Women and young girls account for one in every four new HIV infections in sub-Saharan Africa, and nearly two-thirds of new HIV infections in young people aged 15–19 years are mainly girls (UNICEF, 2013; UNAIDS, 2014c; Global Report on AIDS, 2016).

In sub-Saharan Africa, HIV infections in children have reduced since 2001 by 52 % and AIDS-related death has dropped by 30% since 2005 (UNAIDS 2012). These drops reflect the success of antiretroviral therapy (Kerhoff *et al*, 2015). The burden of the diseases among young population and adults continues to put the province or region on a high health concern (UNAIDS, 2012)

2.5.1. Research on Risk Factors and Students

Several studies in African countries from Nigeria, Kenya, Botswana and Ghana have significantly identified students in the university as a group at high risk of HIV infection due to their risky sexual behavioral practices (Adam and Mutungi 2007; Mberia and Mukulu 2011; Eko *et al*, 2013; Oppong and Oti Boadi 2013; Agyei, *et al*, 2018).

Unfortunately, efforts to convey HIV and AIDS education awareness campaign in many higher institutions of learning are severely constrained by socio-cultural limitations such as attitudes towards testing, circumcision and gender relations. These limitations clear themselves in such a way that HIV and AIDS messages are either not passed across at all or are constrained to biomedical interventions with a very little direct place on sexual relationships on sex among the people. While there are grounds for cautious assurance that the incidence of HIV infections and AIDS-related mortality can be further reduced, this will require overpowering the barriers such as a lack of knowledge of prevention and the performance of high-risk behaviors that are frequent in universities (Zhang, *et al*, 2014).

A study conducted in Namibia described the level of sexual relationship and the prevalence, knowledge and approaches among students in the university (De Beer, *et al*, 2012; Julien and Fourie, 2015). Participants were chosen from Namibia universities and polytechnics

respectively and this combination altogether gave a sample size of 5,000 participants from both institutions. The findings show that HIV and AIDS knowledge was good, however, there were some fallacies regarding the spread of HIV and AIDS and the perception of one's possible risk of contracting the virus was rather low. Some of the tested participants were positive with the virus infections, and because they are not being aware of their status, awareness campaigns, wellness should be an utmost priority in improving their knowledge about HIV and AIDS.

Nkomazana and Maharaj (2014) argue that students in African universities are not properly informed on issues of HIV and AIDS. Similarly, Henderson (2015) reports that many university campuses provide an environment that is conducive for the contraction and spread of HIV and AIDS. Buldeo and Gilbert (2015) also supported the argument with the following factors: i.) the typical age of university students ranges from 19-49 years which is the largest age group contracting HIV and AIDS both in Africa and the world in general, ii. Since a lot of this age group are either college bound or in college, there is a high risk of university students contacting the virus especially with the autonomy that campuses provide for youths. iii) Transactional sex between female and male students; and the iv) use of alcohol and drugs among students influences them to engage in sexual behavioral practices that might lead to HIV infection.

Mkumbo (2013) argues that foreign students lack the adequate knowledge of HIV and AIDS prevention programmes in South Africa and even other part of Africa. Strategic plans in HIV and AIDS prevention in higher education institutions have been provided – including the provision of condoms as well as HIV prevention and support programme (William and Cherly, 1999; Mberia and Mukulu, 2011; Shishane, 2016). For example, HIV and AIDS study among students' risk factors was conducted at the University of Free State (Badenhorst, van Staden and Coetsee, 2008); the study disclosed university students' improvement strategy on HIV and AIDS prevention methods and those students were very conscious about the high risk of contracting the virus. These HIV prevention findings reveal that existing programmes in African universities continues to be underutilized by the students.

Oppong and Oti-Boad (2013) in their study of Ghanaian university students found that generally, female students are more knowledgeable about the spread and prevention of HIV and AIDS. However, this information is often mixed with beliefs that are not based on science such as the effectiveness of spiritual means of treating infected persons and the vulnerability of other relatives of infected persons. The study importantly concerns about raising the student's unwillingness of both young male and female of good behavioural practices of using

condoms as a precautionary condition in reducing the spread of the virus infection and the need to improve awareness interventions of HIV and AIDS in Ghana (Oppong and OtiBoad, 2013).

A similar case study in Nigeria analyzed the awareness interventions of Nigeria's 2007 national HIV and AIDS and Health Reproductive Survey. The studies were based on sexually active adolescents of 865 people. The finding from this study showed that about 75% of adolescents had good knowledge of HIV and AIDS and that HIV knowledge, accepting gifts and money for sex among male, and multiple sexual partners among females were the significantly identified predictors of non-use of condoms when involved in sexual practices (Omoyeni, Akinyemi and Fatusi, 2014). These behavioural practices of gifts and money collection that is most common among the female population is called 'sugar daddying' synonymous with 'blessings' and the benefactors are referred to as 'blessers' or 'sugar daddies' (Leclerc, 2003; Omoyeni, Akinyemi and Fatusi, 2014). The study reveals further that despite the awareness of HIV knowledge in higher education, older age group at sex, have higher wealth when compared in city base residence area are most vulnerable of involvement in risk sexual behavioural practices. Omoyeni *et al.*, (2014) concludes that high knowledge of HIV and AIDS is not statistically significant with HIV protective behaviours among adult population.

In the beginning of 2001, Kelly conducted a survey of the effect of HIV and AIDS ignorance within seven universities in Central and Eastern Africa. This ignorance was characterized in the challenges of stigmatization, discrimination, secrecy, denial and silence. Macintyre *et al.* (2004) and Liggins (2014) view the understanding and analysis of HIV risk perceptions as an important part of HIV prevention communication. A perspective to which this study aims to contribute.

2.6. South Africa, HIV prevention and Higher Education

Statistics South Africa (2013) estimated that half of South Africa population of about 40 million people and more than half under the age 25 years of age is newly infected with virus everyday between 15 and 24 years of age. The statistics put forward to stop the spread of HIV and AIDS is majorly focused on the appropriate young education population. To react carefully to the tragedy of HIV and AIDS, Department of Education in South Africa has established a platform to reach every prospective student, to provide HIV and AIDS and other sexual health programmes in order to protect oneself against the effects of the virus. The institution has also recognized its investments responsibility in making sure that the well-being of young people and engaging themselves in the fight against HIV and AIDS is paramount (Department of

Education, 1999). This investment is essential because it is widely believed that safe sexual practices can be more likely managed among young people than in adults.

The establishment of National Strategic Plan objective 2012-2016 was to reduce new virus infections occurrence to 50% as their main target and the spread of HIV and AIDS & TB will be dropped among families, communities, individuals, and society by providing accessible and appropriate treatment, support, and care. The NSP objectives include four principles as follows: i) awareness structure for social barriers to HIV, STI, and TB prevention care and impact; ii) preventing new HIV, STI and TB infections; iii) wellness sustainability health; iv) increase awareness on human rights protection to improve access to justice.

There are several HIV and AIDS policies, HIV prevention programmes on HIV and AIDS epidemic which have been placed in all South Africa institutions of higher learning in order to curb the spread of the diseases and this implemented programmes used several initiatives designed in reducing sexual risk practices and HIV and AIDS infection spread (Rees, *et al*, 2014; Honke and Thauer, 2015). This awareness raising HIV and AIDS prevention policy, programmes that are established in institutions of higher learning includes; abstinence, be faithful, use a condom, ABC message, testing (VCT) for HIV and voluntary counseling, HIV and AIDS wellness programmes, peer education programmes, support services and affordable antiretroviral therapy (ART), the integration of HIV and AIDS issues in teaching, research and service activities (Jones *et al*, 2014).

Considering the paradigm to fight against HIV with the aim of providing the treatment to all infected people regardless of their biological and clinical stage (WHO, 2015), quite a few other key objectives such as making antiretroviral therapy (ART) available and accessible to all patients, strengthening health care systems, or increasing prevention programmes across general populations are good development to end the HIV and AIDS infections. Furthermore, improving strategic procedures the number of HIV infected individual's unknown to undergo the test, engaging newly infected people into the treatment programme, health care providers support, advancement of testing, treatment and follow-up of patients should be made essential.

There are intellectual debates on which is a better approach to adopt in the prevention of the spread of HIV and AIDS in the ways in which should be addressed. This was derived from the statement where the most affected age group by the epidemic which unfortunately affects both the workplace and institutions of higher learning (Shefer, Strebel and Jacobs 2012; Gobind and Ukpere 2014).

The prevalence of HIV and AIDS stirs fear in South African universities (HEAIDS 2010). University students fall within the cohort of HIV prevalence based on the age range, are at a greater risk of having infection than any other group in the country (Maharaj and Cleland 2011; Mutinta, *et al*, 2012). Student life is surrounded by many factors that can lure them into sexual practices such as, alcohol and drug involvement, multiple sex partners, and non-frequent use of condom endanger this group of young people and makes them vulnerable to HIV infection (Abels and Blignaut 2011; Mutinta *et al*, 2013). A study conducted in South Africa reported that over 300,000 university students in southern Africa are infected with HIV and 15% unwanted pregnancies are experienced during their studies (Ngidi et al, 2016).

Qualitative research has been conducted among university students on condom use (Heeren *et al*, 2014; Asante, Osafo and Doku, 2016), sexual lifestyles in relation to culture (Ferreira, Ferreira Santos-Galduroz, 2014), their attitudes towards HIV testing within social network in African setting (Tobin *et al*, 2014) and transactional sex. Other studies on students have found that there is lack of experience on decision making regarding sexual risk-awareness practices (Palen, *et al*, 2006).

In addition to urban youths, numerous studies have been conducted on the educational sector and the township adult population (Campbell and MacPhail, 2002; James, *et al*. 2004; Bhana and Pattman, 2009; Harrison, *et al*. 2011; Kharsany, *et al*. 2014; Karim *et al*. 2014; and Pettifor, *et al*. 2015)). The difference between the studies cited above and present one is that this study focuses on African foreign students in UKZN. This current research study will contribute to the growing body of literature regarding the sexual behavioural practices among young people and adults of foreign student in a cosmopolitan UKZN on the social factors in order to understand the fundamental factors of behavioral practices towards HIV and AIDS support programme.

2.6.1. South African HIV statistics, prevention policy and programmes

Between 2010 and 2016, new HIV infections in Eastern and Southern Africa declined from 1.1 million (1.0 million–1.2 million) to 790 000 (710 000–870 000), a 29% reduction. This is an important achievement in a region that contains more than half of the world's people living with HIV. This progress is due to several policies geared to achieve Agenda 90-90-90 launched at the 20th Global AIDS conference in July 2014 at Melbourne, Australia to have 90 percent of people know their status, 90 percent of those living with the virus undergoing treatment, and 90 percent of people on treatment on viral repression.

Statistics has shown by Whiteside and Strauss, (2014) that Southern Africa is reported as the epicenter of the HIV and AIDS epidemic. The HIV spread of epidemic in Southern Africa has been generally categorized into three groups of countries: low prevalence, Angola; mid-range countries: Malawi, Mozambique, Namibia, Zambia and Zimbabwe and the hyper endemic countries: Botswana, Lesotho, Swaziland (BLS) and South Africa (UNAIDS, 2013; Whiteside and Strauss, 2014).

The South African national survey reports on HIV prevalence for 2016, stating that the country has about 7.1 million people ranging from the age 15-49 years are living with the HIV virus, and this stand at 19% overall of the global HIV infection. While the prevalence of HIV amongst the general population of KwaZulu-Natal (KZN) region was 16.9% while the country prevalence is 12.2% (NDOH 2016). Conversely, HIV and AIDS remains a challenge to the public health sector and socio-economic development in South Africa.

2.6.2. Importance of the focus of Foreign Students within South African Institutions

International immigrants of African descent played an important role in the progress of South Africa development right from 19th century. The arrival of industrialisation with the mining industry welcomed foreign migrant workers. The period of South African apartheid has been recognized as a period of easy migration movement as African immigration policy was structured with easy access allowing for foreign movement within the borders of southern part of Africa (Chereni, 2013). The White paper on immigration (2017) which seeks to invite skills, resources and funds has also facilitated international migration both into South Africa from neighbouring African states and without to Australia and China.

The National Strategic Plan (NSP) 2012-2016 for HIV, STI and TB is a guide for the strategy for National Department of Health (NDOH) that is responsible for HIV, STIs and TB for countries for a period of five years. This established accessible objective guidelines for the country in line with transmissible infections from 2012 to 2016 period. National Strategic Plan is a guide towards plan for proposal strategy for provincial departments. NSP was founded within the legal policy of South Africa and expanded the government development plans. It includes the Action of programme that commits to ensuring healthy long life for all South Africans, the Medium-Term Strategic Framework (MTSF) and fairness of non-discriminative marginalization against any group(s). From 2007 – 2011, the NSP incorporated a plan that included people that are not South African citizens in providing foreign migrants, people who are seeking for asylum, refugees, and as well as the foreign students to have right to access HIV prevention treatment and support” (NDOH, 2007).

This body of NSP believes that key factors are the immigrants who are vulnerable to the epidemic, foreigners, young people and refugees are among the vulnerable populations that are at risk of the virus (NDOH, 2012). While some of the key populations to be targeted will be the African foreign students with the aims of reducing the risk of HIV, STIs and TB. The NSP highlighted the right to HIV prevention, treatment and support. The NSP notices the scarcity of research literature on foreigners most importantly on international student's guide to HIV infection which can strategically plan for development and recruitment programmes response. To list the right to prevention, treatment and support of foreigners and international students who are young immigrants. There is need to understand the key structural issues such as socio-cultural factors, acculturation and behavioural factors towards health practice from the key population. This is very vital and there is also effective need of response from the host country in order to curb the spread of the virus among foreign immigrants from cross-borders countries.

Studies, globally, have specified a strong association with higher rate of HIV infection among foreigner's population when compared with the general population of a country (Musariri, 2012). The factor that is most common in these settings is the behavioural practices towards health in the receiving country, especially within the young foreigners' cohorts.

Foreigners' health especially the young foreigners are not aware and are not familiar with the host country's health system and epidemiological studies of the country. More-so, lack of intercultural willingness to communicate in health services across borders is a determinant factor to compare foreigner's health behavioural practices in general (Logan, Steel, and Hunt, 2016). Foreigners' health vulnerabilities stem from the lack of relating policy to foreigners as international students. There is limited inclusion of foreign students in health communication interventions plans and this tendency have driven international students to become secretive.

In the last decade, South Africa became not only more attractive in business affairs but also one of the fastest growing international destinations for education for most other Africa countries. Many African foreign students studying in South African universities are from countries with high prevalence of communicable diseases (UNAIDS, 2015). Several studies revealed that barriers including lack of adequate knowledge, misconceptions, negative feeling, refusal, or even discrimination were found among international students towards HIV and AIDS support programme of the receiving country (Guindo, Liu, and Haba, 2014; Shikulo, 2017). Reasons as to why foreign students are an important sample group will be provided, with reference to previous research on foreign students and health in higher education settings (Zeng *et al*, 2014; Ndabarora and Mchunu, 2014).

2.7. KwaZulu-Natal, HIV prevention and Higher Education: Case Study of UKZN's support programme

The UKZN is situated in the Province of KwaZulu-Natal, which is the most affected region by the HIV pandemic with a high HIV prevalence rate. The epidemic has a huge mandate on all service delivery sectors, teaching, learning, and economic development. UKZN and its policy ensures it is committed on its prevention interventions, care, support and treatment and research that addresses the activities that can spread the disease and help students and staff to deal with its impact in meaningful and realistic way.

Students are one group of people that are central to the HIV epidemic as they travel between universities and possibly carry the virus with them and they are known to engage in risky sexual behaviours during this period of their life which are often defined by experimentation (Edith 2013; Fennei, 2014). The sexual behavioural practice and drug abuse are two such examples of this experimentation. Sexual activity and their tendency to engage in multiple sexual partnerships among this group have been underscored as risk factors for contracting HIV and AIDS infections (Apena *et al*, 2014; Segopolo, and Tomaselli, 2017). As such, it is valuable to consider universities students and most importantly African foreign students' behavioral practices towards UKZN HIV and AIDS support programme.

Higher education institutions have prioritized HIV and AIDS prevention, treatment and care programme in their contribution to curb the epidemic. HIV and AIDS response programme are part of the operational inventory ranging from prevention to treatment, care and support; all which are done in alignment with the requirements of national policies and legislature. South African government has introduced 'First Thing First' that has been established in most institutions of higher learning to equip students with knowledge and skills to protect themselves against HIV and to care for others infected or affected by the disease and this also involves all international students.

First Thing First that was being carried out by UKZN HIV and AIDS support programme is significantly important in reducing HIV and AIDS threat by the support programme, for vulnerable students who practice unprotected sex. Such students are also exposed to violence based on gender. This may help young people to make wise decisions before they reach adulthood. It is expected that the findings from this research will contribute in strengthening comprehensive sexuality education as part of First Thing First among the students in the higher institution and the country which has been ravaged by the disease.

Many non-governmental organizations are with a focus on community development, engagement and prevention and control of HIV and AIDS in most rural communities, as they have less knowledge about this disease (UNAIDS 2008). As part of the programmes embarked upon by these agencies to provide proper health care services that range from, preventive measure, treatments, and service support to individuals, part of this achievement is by creating service support centers in higher institution of learning. These activities include, but not limited to sensitization, community mobilisation and counseling programmers. The university interventions programmes are aligned to these approaches.

With the support of this programme, individuals are empowered with the knowledge and understanding of sexual risk behaviours, sex negotiation, and reduction of any risky sexual practice, reduction in infection through abstinence, using protections (condoms) (Ukpong, 2006). Martinez (2007) emphasizes that sensitisation encourages individuals to use the health services provided as well as helping them to make a choice on their health matters. While community behaviour practices are used to create and increase awareness about HIV transmission within the community, this promotes an attitude change among individuals in a community, increases condom use which produces a change among high-risk groups (Lau and Muula, 2004).

In a country such as South Africa with a high HIV prevalence in the world, there is a need for HIV and AIDS-related research focusing more on students in universities, because they are the drivers of the future economy (Gobind and Ukpere 2014). University students are at high risk of being infected with HIV but do not manifest risk at the level that exists within the larger community they find themselves” (Mutinta *et al.* 2010). University students are more vulnerable as considered in the institutional environment they find themselves.

International students at UKZN are protected by UKZN HIV and AIDS policy as it is in alignment with international protocols. Despite the compulsion of medical aid as a condition for admission, the policy provides for support programme for infected persons. International students cannot be left out because they are part of the university community. The fast pace of life for tourists and conducive environment in Durban may increase potential health risks, specifically with respect to fleeting relationships, multiple partners and subsequent exposure to sexually transmitted infections (STIs) and HIV and AIDS. Student population is approximately 42,000 and mean age of about 20 years of age. This is the case with other institutions of higher learning; there is an increase of females over male students, although the

gender gap has reduced considerably over the last decade alongside a general increase in students' admission.

Peer educators are the most used in developing countries. South Africa used peer educator as an important tool in different sectors and the institution of learning (Kelly, 2004; DOB, 2010). Peer educators are the teaching and sharing of health information, values, and behaviours in educating others who may share similar social background (Amanda, Mason-Jones, Fisher, 2011). Peer educators are, in most cases, respected members from the community, hold a community leadership position or they might have reached a higher degree (postgraduate students as compared to those still doing undergraduate studies). These peer “leaders” often lead by example, either regarding alcohol consumption, general healthy lifestyle or safer sex (Kelly, 2004). At UKZN, the DramAide programme has used peer education and drama in information sensitization with success (Cardey, 2011).

The HIV and AIDS support programme are also implemented by peer educators (Agha, 2002; Heeren, *et al*, 2012). The programme addressing various numbers of health-related areas such as sexual health education, alcohol abuse prevention, drug, tobacco, nutritional promotion. The peer educator’s programme objective to assist young people to make an informed decision while providing them with support and accurate information. It seems that young people feel more empowered by peers than by adult teachers (Zuch, Mason-Jones, Mathews *et al* 2012; WHO, 2014). While peer educators are supported by many studies (Heeren, *et al*, 2012), but there are no influences in acceptance between an adult teacher and peer educator (Heeren, *et al*, 2012).

Students in the institutions of higher learning are a group of young adults who are easy to reach and universities have a certain responsibility and opportunity to not only train the “elite of the nation” for the future but also influence their style of living in a healthy way by offering them not only academic knowledge. The universities can provide training and teaching to the students as long they are available to reach while attending schools or universities (Dooris and Doherty, 2010). Moreover, the use of the theoretical framework that was established by Hochbaum, Resonstock and Kegels (cited in Ndabarora, and Mchunu, 2014). This can be useful to peer educators.

The theoretical model put forward on experience on young people makes it easier to reach them and to avoid the type of discussions that leads student’s relationship with professional teacher consultant (Strange, Forrest and Oakley, 2002; Bryant, 2016). The government and many other stakeholders take advantage in supporting the implementation development of health

promotion programmes as well as effective interventions to prevent STIs/HIV and NCDs (Heeren *et al.*, 2016). This is specifically on students in the university as the important figure because they are the future leaders and role models in their respective community. Studying foreign African students' behavior in HIV prevention programmes will give the researcher full insight into their perceptions of HIV and AIDS support programme

2.7.1. Kwazulu-Natal HIV statistics

The prevalence of HIV amongst the general population of KwaZulu-Natal (KZN) is 16.9% against the national prevalence of 12.2% (NDOH; 2016). This study will be conducted in the province of KwaZulu-Natal, which has been recorded to have approximately 1.6 million persons living with HIV, which is (15.8%) of the total population between the ages of 15 yrs-49 yrs. The incidence of (new infections per year) of HIV in KZN is 2.3% compared to the national incidence of 1.8% (NDOH, 2016; STATSSA, 2017).

The province of KwaZulu-Natal is the second highest population provincial (10.92 million) yet one of the country's poorest provinces (www.statssa.gov.za). KZN province, has 6.1% prevalence among student's population and 8.7% in black students of Africa, when compared to 0.5% of the population of Indians in a survey that was conducted in 22 institutions of higher learning from 2008–2009 (HEAIDS 2010; Mantell *et al.* 2015). In spite of HIV and AIDS interventions targeted at university students, sexual practices place this group at risk of HIV infection, other STIs, as well as unintended pregnancies which continue as serious health concern (Mutinta *et al.* 2013; Madumo, Havenga and Van Aswegen, 2015). This study will add to the existing body of work that have been written on the subject.

The South African government has put in an effective measured effort to scale up HIV testing services and build up the quality of all health services in line with the ambitious goal of HIV elimination by 2030 (Neluheni *et al.*, 2015). Looking at this trend of the initiative, it is important to consider immigrants and most particularly those in KZN province where the epidemic is leading when compared to other South African provinces. A report reveals that there has been growing statistics on the number of foreign immigrants in South African institutions of learning (Academy of Science of South Africa, 2010), but there is scarcity of literature examining their behavioural practices towards HIV health programmes in the country.

African foreign students will be the case for this study. Alongside rural population, the university attracts students from countries with high prevalence rate and is the most susceptible

group with regards to HIV and AIDS as Africa has the highest number of HIV in the world and because of this, they form most part of international students studying in South African universities. This has increased significantly over the last ten years because of many factors that include the closeness of the country geographically, bilateral relations, and free tuition for postgraduates' research, historical connections and language (HEAIDS, 2010). These are factors that would seemingly make it easy for this group of African foreign students to find their way to (studying in) South African and most particularly KZN province a "home away from home" that continues to battle with high rates of HIV with more than 207,000 patients on antiretroviral (ARV) treatment (District Health Barometer 2013) and the Health Systems Trust (2013).

Research shows that young people engage in unsafe sexual practices, and the province of KwaZulu-Natal, university, colleges and the environment offer an opportunity for these practices. In South Africa, the programme established the Higher Education and Training HIV and AIDS Programme (HEAIDS), a national facility to develop and support the HIV mitigation programmes at South Africa's tertiary institutions. (HEAIDS) reported students engage in sexual risk behaviors such as multiple partnerships, inconsistent use of condoms, and low uptake of HIV testing (HEAIDS, 2010). The report indicates that sexually active students that used condom is 62% during their last sexual practice and only less than half had ever tested for HIV. Previous studies indicate that having multiple sexual partners is a common practice in many African countries including South Africa, and students at higher institutions of learning such as the universities and Technical Vocational Education and Training (TVET) colleges are all part of the students practicing having multiple sexual partners (; Pettifor *et al.*, 2008; Akintola *et al.*, 2012; Mutinta and Govender, 2012).

Student behavioural neither practices like as nor frequent used of the contraceptive device and having many various sexual partners could increase the unfold of HIV among students (Mutinta & Govender, 2012). There are evidences that a significant proportion of students at higher institutions had never tested for HIV despite the high rates of risky sexual behaviors and evidence that they have adequate knowledge about HIV as well as where to access HIV counseling and testing (HTC) services (Durojaiye, 2011; Moodley & Phillips, 2011; Nqojane *et al*, 2012; Asante, 2013). Low rates of testing in South African tertiary institutions of learning are of great concern because the counseling campaign initiated into the universities system with "First Things First" HIV testing and an intervention programme brought by HEAIDS to mobilize students at public institutions of learning across South Africa to know their HIV

status. After HEAIDS was established in 2001, it was advocated that HIV counseling and testing should be made available for students. It is not clear why HIV testing rates remain relatively low (HEAIDS, 2010) with the establishment of the programmes. This calls for concerted efforts to investigate the behavioral practices that mitigate perceived barriers among African foreign students for not patronizing the HIV and AIDS support programme of the institution.

Many studies conducted with young people on their opinions of the risk of sexual behavioral practices towards HIV programme, it shows that young people and students, in particular, have low-risk perceptions (Durojaiye, 2011; Asante, Meyer-Weitz and Petersen, 2014; Sisay *et al*, 2014). This can also be applicable to the international students with low-risk views and high sexual behavior practices advocate that African foreign students are at high risk of contracting HIV and STIs. However, no such studies have been conducted among African foreign students in spite of the fact that students fell within the age group which are vulnerable to HIV and STI infections and risky sexual behavioral practices as the province and its metropolis is a concern.

2.7.2. UKZN policy regarding foreign student and HIV prevention

South Africa as a country has high prevalence HIV and AIDS, and UKZN is located in one of the provinces most affected by this pandemic where the high prevalence of HIV is placing a huge demand on all sectors of service delivery, economic development, teaching and learning (The South Africa National Survey, 2016; UNAIDS, 2016). The university, therefore, through the HIV and AIDS policy is committed to ensuring that its interventions of prevention, treatment, care, support and research actively address the epidemic and help staff and students to deal with problem. This policy expresses the University's recognition of its responsibility to facilitating access to HIV and AIDS information, prevention, treatment, care and support services for all staff and students, including direct provision of these services where available resources permit (UKZN HIV policy, 2005).

The HIV policy emphasizes that the university has an obligation to provide safe working environment for all staff and students living with HIV and AIDS. This is done by creating an environment free from stigma and unfair discrimination, minimize HIV exposure and organize awareness and prevention activities for staff and students. Members of the university community both staff and students have the responsibility to protect themselves and others from HIV infection. The university ensures this is done by informing the university community about all aspects of HIV and AIDS prevention, care and support to limit new HIV infections (UKZN HIV policy, 2005).

UKZN is opposed to HIV testing of students before admission; no student is denied admission because of their HIV status. Students HIV status is not considered for awarding financial aid(s). The university does not provide special privileges to students infected with HIV and AIDS, there is equal treatment for all students. UKZN shall not coerce any staff or student to disclose their HIV status; the status of staff and students should be treated with strict confidentiality so as to prohibit any kind of discrimination and victimization (UKZN HIV policy, 2005).

The HIV policy in UKZN requires the university to continue to provide HIV and AIDS education and awareness to prevent the spread of the pandemic. This is done through initiatives and activities which inform staff and students of HIV and AIDS issues. Such initiatives include: workplace programmes for staff, provision and promotion of VCT for staff and students, increasing access of condoms and treating STIs. Staff and students are encouraged to know their HIV status and will provide free VCT services on campus for staff and students. The university shall also provide within its budget access to basic treatment, care and support services for members of staff and students infected with HIV. Necessary referrals to suitable state ARV treatment sites will be made for ongoing ARV treatments.

The UKZN HIV and AIDs support programme offers a wide range of services. Some of them include: servicing students with information on prevention strategies such as HIV counselling and testing (HCT), awareness campaigns, condom distribution (to females, males, lesbian, gay, bisexual, transgender and intersex) and distribution of information and educational material related to HIV and AIDS, STIs and TB, sexuality and reproductive health. Other services offered include: clinical management and monitoring of HIV positive staff and students, for instance the ARV treatment programme at the Cato Manor Clinic in Durban. The programme also creates HIV and AIDS awareness through different activities and forums such as peer education, women's forum, men's forum, positive living, LGBTI and abstinence forum (UKZN HIV and AIDS programme, 2018).

UKZN is committed to conducting extensive social science, public health and biomedical research on HIV & AIDS. The university will develop guidelines, plans and policies to support HIV & AIDS research and creates mechanisms which encourage more research to be undertaken by staff and students at the university. The university shall collect HIV and AIDS related data from staff and students through surveys and access to health and personnel by observing approved confidentiality requirements and ethical procedures (UKZN HIV policy, 2005).

2.7.3. UKZN HIV and AIDS Support Programme

UKZN HIV and AIDS support programme plays an important role and continue to respond to the challenge faced by the educational sector in battling the effects of the HIV and AIDS epidemic. The establishment of HIV and AIDS health support programme in the university helps to provide prevention for its thousands of students and employees for their care, support and treatment. The programme consists of HIV counselors that are in the campus clinic and health promoters located at the HIV and AIDS Support Unit (CHASU) in UKZN's five campuses of the HIV and AIDS support programme (HIV and AIDS Support Unit, 2015).

UKZN is located in a country associated with the highest prevalence of HIV and AIDS in the world (UNAIDS, 2016). The university is made up of approximately 45,000 students of ages between 18 and 21 thus comprising of the age group vulnerable to HIV infection and transmission (Osonwa *et al*, 2013; Oppong and Oti-Boadi, 2013; UNAIDS, 2016). UKZN HIV and AIDS support programme in partnership with key role players seek to reduce the impact of HIV pandemic, HIV prevention, care and support, treatment, outreach, curriculum integration and research within UKZN and surrounding communities. The programmes' priority is HIV prevention and treatment in the institution (Timbs, 2018)

UKZN HIV and AIDS support programme targets both staff and students of UKZN and with collaboration with the Human Resources Departments, Occupational Health and Safety, Student Health Services, Colleges, Executive management support and external stakeholders (NGOs and government departments) provide HIV prevention and treatment services. Programme is guided by the country's National Strategic plan and guidelines as well as UKZN protocols, procedures and policies. The HIV and AIDS support programme drives the implementation of HIV and AIDS 2012-2016 five key priority areas of the National Strategic Plan (NSP) for HIV, STIs and TB in order to combat the spread of HIV. The programme consists of counselors, peer educators and health promoters who are available in all 5 campuses; counselors are located in campus clinics providing on-campus HIV counseling and Testing (HCT) and health promoters are located at campus HIV and AIDS Support Unit (CHASU)

2.8. Conclusion

The literature shows that there is prevalence of HIV and AIDS in South Africa and Africa in general. New infections occur every day thus keeping everyone at risk of being infected with HIV especially university students who are at the age most vulnerable for HIV infection. UKZN incorporated the HIV and AIDS programme to help prevent the spread of HIV and also

provide treatment, care and support for both staff and students. The chapter connected national and university policies as framework to protect the rights and lives of immigrants. However, there is fundamental discussion on how to protect and prevent the spread of transmitted sexually diseases such as HIV in the institutions of higher learning in the country if not all. There is a need to include African foreign students in South Africa in the fight against the pandemic since the country is one of the fastest growing international destinations for education.

The next chapter discusses the justification for the adoption of the theory used and its deployment in the study under consideration.

CHAPTER THREE

THEORETICAL FRAMEWORK: HEALTH BELIEF MODEL (HBM)

3.1. Introduction

This chapter discusses the theoretical framework of the study. In this study, the Health Belief Model is used to guide the investigation and explain the factors that influence African foreign students' behavioural practices in response to HIV prevention at UKZN. A theory is a set of analytical statements designed to structure our understanding and explanation of the world, whereas a model is an explanation that provides a deliberate simplification of a phenomenon (Frankfort-Nachmias and Nachmias, 1996; Carpiano and Daley, 2006). Theories make predictions by providing the relationship between different defined variables thus explaining how and why particular relationships lead to particular events while a model provide simpler explanations of events for easy understanding of such events (Nilsen, 2015). Therefore, a theory represents a set of statements that are developed via a process of continued abstraction while a model involves a deliberate simplification of a phenomenon. HBM is a simplification of a socio-cognitive theory that attempts to explain and predict health behaviour by focusing on individuals' attitudes and beliefs. HBM is situated in the behavior change communication (BCC) paradigm.

BCC contains theories with the goal of designing and implementing interventions that produce the desired behavioural changes (Glanz, Lewis, and Rimers, 1990). This means it is a paradigm guided by systematic processes and behavior theories using variety of communication channels such as interpersonal, group and community dialogue and mass media to engage in specific behaviours that influence practices that promote their well-being (Glanz, Lewis, and Rimers, 1990). Health Belief Model is not a theory *per se* that will guide this study as it is embedded in the BCC paradigm, but the Health Belief Model is useful to this study as it specifies a number of cognitive (mental processing) and affective factors (beliefs and attitudes') in an individual as the determinants (influences) of behaviour (Jeihooni *et al*, 2017).

3.2. Origin and the uses of the Health Belief Model

The health belief model was first developed in 1950s by social psychologists, Hochbaum, Rosenstock and Kegels working in the U.S. Public Health Services as a step by step guide to explain and predict preventive health problems (Hochbaum, 1958). It was developed in response to the failure of a free tuberculosis programme. Since then, the HBM has been adapted to explore a variety of long- and short-term health behaviours, including sexual risk behaviours

and HIV and AIDS transmission (Walker, *et al*, 2004; Lin, Simoni and Zemon, 2005; Madondo, 2010; Gaffari, Ghalipour and Rakhshanderou, 2016; Jeihooni *et al*, 2017). The HBM proposes that health behaviour is established by personal beliefs about a particular disease and available strategies to reduce its occurrence (Hochbaum, 1958).

The model was initially developed with only four main concepts which includes: perceived threat, perceived susceptibility, perceived severity, perceived benefits (Hochbaum, 1958). However, the concepts of cues for action was included to stimulate behaviour and in 1998, the concept of self-efficacy was also included to solve the problem of habitual unhealthy behaviors such as smoking and over-eating (Rosenstock *et al*, 2015). Since the HBM has been implemented to explore a variety of long and short-term health behaviors including sexual risk behaviours and the transmission of the disease, it is appropriate for this study. The HBM is based on the understanding that a person will take a health-related decision if that person feels that a risk of sexual health involvement can be avoided. When a proper and positive step is taken by a recommended health facilitator, one will avoid risk of any kind of health behaviour (D'Souza *et al.*, 2011).

The health belief model is also based on the premise that individuals who perceive themselves to be at risk of contracting some form of disease perceives the disease as severe and thereby have the idea that changing their behavior will better their situation and will adopt preventive behavior (Kirscht, 1974). There is also a premise that for an individual to participate in any behavioural change; the individual has to feel they are likely to contract an illness or the individual accepts the fact that if they do not treat the illness, it will have a negative effect on their health (Kirscht, 1974).

The HBM has also been successfully implemented in the study of various health issues such as tuberculosis, cancer, diabetes and of recent in sexually transmitted disease (Ersin and Bahar, 2010; Masoompour, Tirgari and Ghazanfari, 2017; Li *et al*, 2015). A study by Masoompour, Tirgari and Ghazanfari, (2017) revealed that perceived self-efficacy, perceived severity, perceived barrier and perceived susceptibility were best predictors of self-care behaviors among type 2 diabetes patients. Another study showed that education provided by taking the HBM into consideration became effective on breast cancer early diagnosis behaviors (Ersin and Bahar, 2010). Knowledge and benefits components of the HBM predicted preventive behaviours such as covering one's nose or mouth when coughing or sneezing, respectively avoiding others coughs and predicted seeking tuberculosis care among tuberculosis patients (Li *et al*, 2015). Also, Tarkang and Zotor (2015) found out that perceived susceptibility to HIV and

AIDS, perceived severity of HIV and AIDS, perceived benefit of condom use, perceived barriers to condom use, condom use efficacy determined HIV and AIDS prevention among senior secondary school female students in Mbonge, Cameroon. These studies show the importance of the HBM in the prediction of health behaviours.

The model is used among researchers in many countries studying the relationship between HIV knowledge risk perceptions towards the disease and sexual behaviours (Stringer *et al.* 2004). For example, a study was conducted among 232 African American individuals at six private and government owned clinics and discovered that the HBM is influential in predicting sexual behaviour in the use of condoms (Volk and Koopman, 2001). A study conducted on senior secondary school female learners in Mbonge subdivision of rural Cameroon showed that individuals who perceive the risk of getting HIV and AIDS as low are unlikely to use condoms (Tarkang and Zotor, 2015).

3.3. Key constructs of the Health Belief Model

The HBM is centered on the belief that a person's health is influenced by recommended behavioural practices given by health practitioners, for example, the promotion of use of condoms during sex with multiple partners helps protect people from contracting any kind of sexually transmitted diseases such as gonorrhoea, syphilis and HIV (Robinson, 2016). In addition, it predicts that people can be influenced to participate in behavior that will remove the risk of sexually transmitted diseases by taking a recommended action to avoid a negative health condition (such as: using condoms with someone with multiple partners helps one from not contracting sexually transmitted diseases). The HBM predicts that a person can be influenced to act in accordance to a certain behaviour that believes to be prescribed for them by healthcare practitioner i.e., using condoms all time when engaging in sexual intercourse with multiple partners reduces the risk of HIV infection (Aduloju, 2016).

The four major constructs representing the perceived threat and benefits (perceived susceptibility, perceived severity, perceived benefits, and perceived barriers) mobilized in the paragraph above will now be explained in greater detail. In addition to the expansion of the constructs is cues to action which was added to help motivate people's willingness to stimulate external event to help spur a cue to action (Lovejoy *et al.* 2014). Furthermore, in 1988 stemming from the social learning theory led to the addition of the sixth construct self-efficacy and that is the self-idea of one's judgment either good or bad (Bandura, 1977). The reason for the addition of the construct was to enable the HBM to provide a comprehensive lens to understand the challenges of changing habitual behavioral practices of human-being, such as

taking health programme serious like the one we have here, the university HIV and AIDS support programme to reduce the risk of sexual practices among the students in the university (Janz and Marshall, 1984).

3.3.1. Perceived threat and perceived susceptibility

The HBM model shows the likelihood of an individual to carry out a behavior if he or she perceives a threat from getting a disease or health condition. This perception is grouped into two components namely: perceived susceptibility and perceived severity.

Perceived susceptibility refers to the probability that an individual appropriates to the susceptibility to developing health conditions from a habit. Hence, it is the belief that an individual has regarding the probability of contracting a disease or being in a harmful state of health (Rosenstock, 1966). This makes individual's feel threatened by diseases or the risk of contracting diseases (Curtis, 2016). The personal perception of vulnerability varies from individual to individual. Most times, the higher the perceived risk, the higher the probability of engagement in behavioral change activities that reduces the risk of contracting the disease such as exercising and practice of safe sex. For example, university students having the perception that being active sexually exposes them to HIV, unwanted pregnancy and other forms of sexually transmitted disease, the tendency of consistent use of condom, and patronizing the university HIV and AIDS support programme for regular testing when involved in unprotected sex becomes very high because of the perceived dangers to their state of health. However, a student who does not perceive this susceptibility may not adopt preventative measures for HIV infection. Perceived susceptibility has been found to be a predictor of many health promotions such as smoking cessation and HIV and AIDS (Reisi *et al*, 2014; Tarkang and Zotor, 2015).

3.3.2. Perceived severity and Behavioural evaluation

Perceived severity shows the level of importance an individual place on the consequences of developing a health condition. Hence, it deals with the individual belief on the level of harm the disease can cause to a person's current state of health as a consequence to a particular habit (Sun *et al*, 2013). For instance, a husband knows that if he contracts HIV and AIDS, he will pass it to the wife so that will make him to be more careful not to contract the disease. An individual is more likely to take action when they believe that the consequence to a habit or behave can cause psychological effect, financial burden, stigmatisation and even death (Champion and Skinner, 2008). This study investigates how HIV and AIDS is perceived by African foreign students as a serious public health challenge. This is because one's behavior determines what happens to them and people are so sensitive about the health programme. This

construct is employed to ascertain African foreign students' behavioural practices towards UKZN HIV and AIDS support programme. Perceived severity accounts for a person's belief of how serious a health problem may be and the costs of contracting a disease. The HBM proposes that if perceived severity is high, that it may positively influence one's behavior towards health programmes and hopefully encourage people's use of such (Montanaro, Kershaw, *et al*, 2014).

The HBM also proposes that there is likelihood for an individual to carry out a behavior or habit if the individual perceives that participating in such behavior will supposedly reduce the negative health effect. This evaluation is based on two belief systems; perceived benefits and perceived barriers.

3.3.3. Perceived benefits

Perceived benefits refer to the benefits of engaging in healthy behaviour to offset the perceived threat based on the advice to reduce risk (Sun *et al*, 2013). Students are advised on the recommended healthy lifestyle like using condoms when engaging in sexual activity would protect them from getting HIV infection, practice of consistent use of condom reduces the risk of sexual transmitted infections. People intend to adopt behavior that is healthy because the healthy behavior will reduce their chances of contracting any sexually related disease. Perceived benefits play an important role in the adoption of any preventive behavioural practices. The students' belief involves the efficacy of performing an action that is advised to reduce risk of sexual transmitted diseases (Muzenda, and Rembe, 2014). This idea is used to explore the change effects that have a bearing on foreign students' behavioural practices in UKZN HIV support programmes.

3.3.4. Perceived barriers

Perceived barriers refer to an individual's knowledge, of the psychological problem and the costs of the action and hindrance to the target benefit (Sun *et al*, 2013). For example, many people avoid using condoms as they believe that condoms reduce the pleasure in intercourse while some believe that condoms cause allergic reactions to them (Agunbiade and Togunde, 2018). This barrier can prevent students from not using condoms during sexual intercourse. Individuals can evaluate the obstacle in the perceived barrier in their own way and bring to practice a new behavioral change. This means perceived barriers can result to new behavior which can be positive or negative behavior. For instance, due to condom causing allergies, someone might decide to abstain from sexual behaviors until marriage or avoid having multiple sexual partners. It is vital that perceived barrier to adopting a pro-social behaviour is removed.

Strategies to do so are implemented at the mass media level where campaigns may address what may be considered hindrances to adopting a healthy behavior. Strategies are also implemented at an interpersonal level. For example, it would be that strategies are also implemented at an interpersonal level. Also, it would be important for support services counselors and health facilitators to help students identify their perceived barriers to HIV prevention so that they can advise on how students can efficiently address these problems. The identified barriers allow students to change their behavioral practices towards HIV and AIDS support programme (Alemayehu, 2015). Hence, certain awareness programmes encourage, and assist students to change their conduct of behaviour that help reduce barriers and practicing the behaviour that is required from them.

3.3.5. Extension to the Health Belief Model

The conventional HBM consisted of four primary variables (susceptibility, severity, benefits and barriers) which has however been modified over the years to include two more variables; cue to action and self-efficacy.

3.3.5.1. Cues to action

Cues to action are the strategies employed to activate willingness to decide on health behaviour (Graham, 2002; Groenewold, Bruijn, and Bilsborrow, 2006). This determinant was added to the model to identify the course of health behaviour when appropriate belief is upheld (Graham, 2002). This construct was used for the study because of information from health programmes. This includes messages in banners and t-shirts to remind individuals to take certain preventive behaviors such as to always use condom and to avoid multiple sexual partners so as not to contract HIV and AIDS, also reminders in the form of incentives such as pencils provided in schools with the printed message "no glove, no love". The Centre for Disease Control (CDC) National Prevention Information for (2002) reported that the new AIDS awareness campaign with the slogan "no glove, no love" gained large public support as the program was designed for condom use through the adoption of a slogan that is amusing and relatable to the local people. These cues to action promote awareness and need for students to participate in the HIV prevention programmes. The cue to action in HBM is the experience that measures individual physical condition of health, environmental or interpersonal knowledge that is motivated by individual (Higgerson, 2017). The action is the motivation an individual has to comply with the concern about health programmes, and the willingness to seek health awareness activities and engage in health prevention and care programmes.

3.3.5.2 Self-efficacy

Self-efficacy refers to the belief that one is able to successfully execute the behaviour required to produce the desired health outcome (Bandura, 1997). For instance, student decide to abstain from sexual activities until marriage. HIV interventions help to foster a sense of capability and possibility amongst people with the aim to develop a medium of aspiration of the risk in their sexual behavioral practices about the future (Aboussalam *et al*, 2016). This individual's ability and confidence will provide HIV and AIDS support and training that will influence performance activities of African foreign students' in their behavioural practices towards various HIV and AIDS prevention programmes.

The constructs 'work' together can be summarized as a cost benefit analysis that an individual 'performs' when faced with a risk and support in avoiding that risk. Perceived severity and susceptibility lead to an individual's perceived threat which is weighed up against perceived benefits and barriers that lead to an individual's feelings of efficacy in performing behaviour change. This perceived barrier needs to be overcome while bringing on board some new behavioral practices. For example, when students are well-informed and knowledgeable about HIV and AIDS transmission and risk behaviors, they tend to change their behavioral practices so as not to contract the disease.

The purpose of this study is to examine African foreign students' behavioural practices towards the UKZN HIV and AIDS support programme.

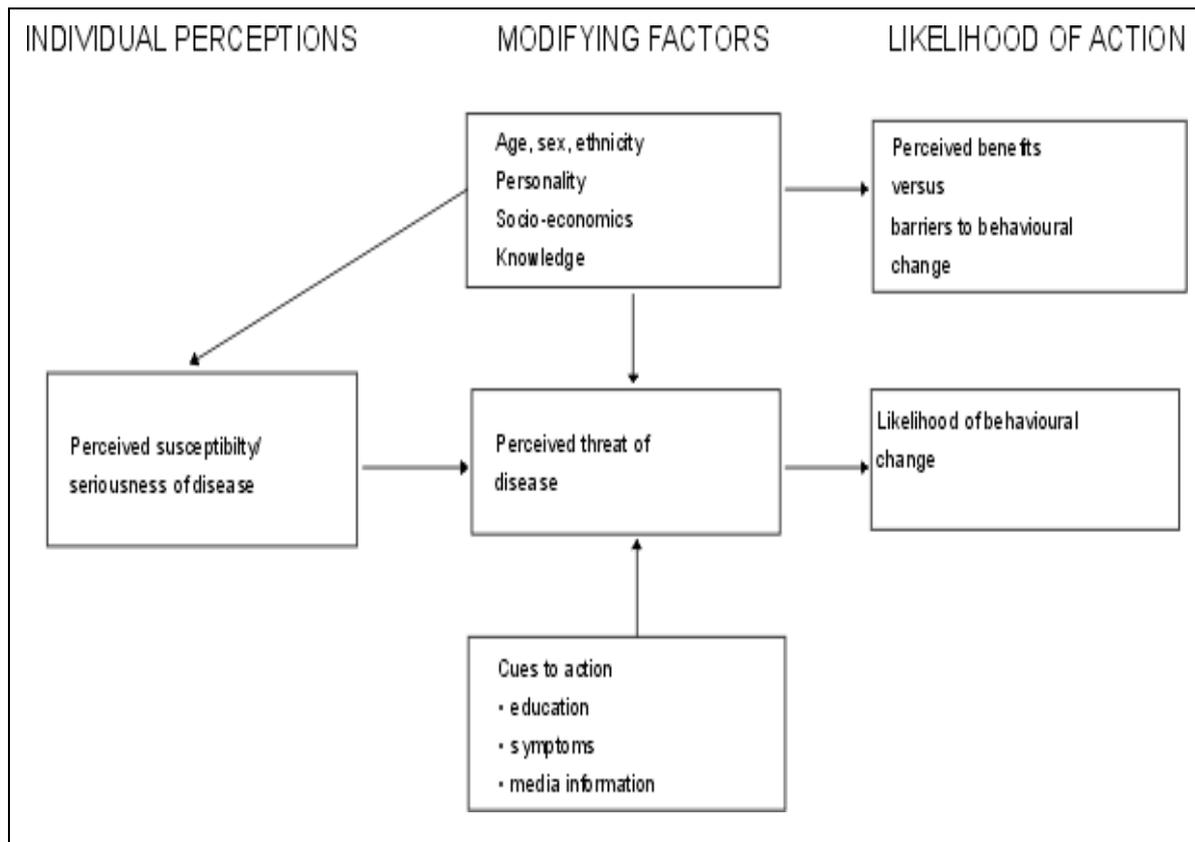


Figure 3.1: Presentation of the Health Belief Model; *Source: Glanz et al, (2002, p. 52).*

This current study makes use of the HBM model in order to understand the possible influence of the foreign student’s perceived risk (susceptibility and severity) to contracting HIV, and to determine their perceived benefit in accessing the support services, as well as their perceived barriers that may prevent them from doing so. Cues to action may facilitate the perceived benefit of using the services, and so the ways in which cues to action are influential on foreign students will be analyzed. Self-efficacy refers to one's confidence in the ability to successfully adopt a recommended health action (Rosenstock *et al*, 1988), and evidence of this perceived ability will also be analyzed.

3.4. Criticisms of the Health Belief Model

Although, the HBM possess the ability to forecast behavioural change, it has also been criticized for its western ethnocentric perspective and failure to consider other socio-cultural factors in developing countries which has the tendency for risky sexual behaviors (Rankin, *et al* 2009). This was also argued by Eiser and Cole (2002) that the non-inclusion of culture in the HBM shows a weak relationship between perceived risk perception and sexual behaviors (Eiser and Cole, 2002).

HBM emphasizes on individuals' beliefs and attitudes (individual responsibility) in determining health problem ignoring the fact that health problems are too complex and may be caused by factors beyond individual control such as economic and environmental factors (Allen, 2014). For example, people's choices are usually affected by factors beyond their control, these factors could be socio-cultural and economic. Maintaining a good diet is a basic nutritional requirement for treating any disease but factors such as inadequate access to food and clean water are usually not accounted for within HBM. Highlighting the importance of factors beyond individual control within certain circumstances while being ailed is a major weakness of the model. Also, the Health Belief Model focuses on beliefs and attitudes and, as such, may be less appropriate for dealing with habitual behaviours such as dieting, smoking, or other emotionally motivated health behaviours (Allen, 2014). Despite the above criticisms of HBM, the model is relevant in guiding data collection and data analysis in this study.

3.5. Conclusion

The HBM informs the study research questions and objectives and will be mobilised to assist in interpreting the data in order to evaluate the basis for UKZN foreign students' behavioural practices and patterns in connection with the HIV and AIDS support services on offer at the university. The theory became very instrumental in the research design phase as it guided the development of the survey instrument and interview schedule. The constructs of the theory reflecting various aspect of behavioural pattern how it might influence health seeking behaviour was the template used in asking questions. The study sample were asked questions that could help access how their behavioural patterns as influenced by their culture, socio-economic characteristics and context shape their participation in UKZN HIV and AIDS Support programme. The next chapter provides insight into the steps and processes adopted during this study by highlighting data collection and data analysis processes.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1. Introduction

After the identification of the research problem, the researcher must select a research design and appropriate methodology for collecting and analyzing information (Creswell and Poth, 2017). This chapter describes the research methodology, specifically the research design and methods that were employed in this study to understand African foreign student's behavioural practices towards the University of KwaZulu-Natal's HIV and AIDS support programme at Howard College Campus.

Research method refers to the overall processes used in conducting the research project while research methodology refers to the discipline that makes use of these processes in executing the research project (Struwig and Stead, 2013.) This chapter presents the research design, research methodology, sampling technique, method of data collection, method of data analysis, and the chapter concludes with ethical consideration and limitations of the study specific for this study.

Table 4.1: Summary of methodology

Summary of methodology	
Research design	Case study design
Research approach	Mixed research Approach
Methods of data collection	Questionnaires and In-depth interviews
Selection of participants	Purposive sampling
Data analysis	Thematic Analysis

4.2. Research Approach

According to Leedy and Ormrod (2010), research methodology refers to researcher's general approach in carrying out the research project that is the research process, tools and procedure to be followed in conducting the research. The mixed method research method was adopted in this study. It is a research method that involves combining qualitative and quantitative methods so as to draw the strengths and minimize weaknesses of both methods (Johnson and Onwuegbuzie 2004; Creswell and Plano Clark, 2007).

Mixed method approach provides a platform for collecting, analyzing and "mixing" both quantitative and qualitative data in the research process within a single study, to understand a research problem (Creswell, 2013). The rationale for using mixed methods is that, neither

quantitative nor qualitative methods are sufficient by themselves to capture the trends and details of the situation under investigation. When used in combination, quantitative and qualitative methods complement each other and allow for a more comprehensible analysis (Tashakkori and Teddlie, 2013). When an investigation seeks to understand behavioural practices among group of people, and such phenomenon is not directly observable, then the qualitative approach becomes appropriate (Polkinghorne, 2005). Subsequently, the measurement of perceptions applies to that series of variables about the identified social phenomenon. This is where the quantitative aspect of this study becomes very relevant.

Concurrent mixed method was used for effective measure that provides an understanding of the identified occurrence in the current study. Concurrent mixed method is a process whereby the study employs both qualitative and quantitative approaches simultaneously to discover a subjective meaning that people construct and apply to their actions in social interactions (Creswell 2014). The study used triangulated results from both approaches to enrich the findings of the study.

4.3. Research design

Research design gives the research the strategy of how to integrate the different insights, components and phases of the research in a coherent and logical manner to address identified research problem. Hence, it guides the collection, measurement and analysis of data (Creswell 2013). Research design can simply be defined as a basic plan that guides the researcher in data collection and data analysis phase of the research project. According to Churchill and Iacobacci (2005), research design provides the framework that specifies type of information to be collected, its sources and procedure of collecting the information. The case study design was adopted for this study; it is an in-depth study of a research problem.

Case study research design was adopted in this study because it allowed the researcher to focus on one issue and environment. According to Zainal (2007), a case study research is an approach that allows the researcher to examine data within a specific context through the selection of a specific area and a controllable audience to fully understand the narratives around social issues in that particular context. Case study becomes a very important approach to this study because it is important to generate multifaceted data using different data collection methods, so as to have a comprehensive understanding of the factors that influence foreign African students' behaviour towards HIV and AIDS support programme at UKZN. This research design is also very useful in testing the applicability of theories to real life situations (Flyvbjerg, 2006).

4.4. Data collection tools

This study used questionnaires and semi-structured in-depth interview guide for collection of data. These two data collection instruments allowed the researcher to explore more meaningful insight to the behavioral practices of international students within the UKZN HIV and AIDS support programme.

4.4.1. Questionnaires

According to Mujere, (2016), one of the most effective ways to collect quantitative data is to administer a standard questionnaire. Closed-ended questionnaires were administered to the sample group to access data from African foreign students' participation behaviour in the UKZN HIV and AIDS support programme. Administering these closed-ended questionnaires ensured that all respondents are asked the same questions in the same structure. Closed-ended questionnaires presented a set of fixed options from which the respondent was able to select most suitable responses (Bryman, 2004). A total of 291 questionnaires were administered for the study. As a study that sought to explain the behavioural practices of African foreign students towards UKZN HIV and AIDS, it became needful to collate the opinions belonging to this category within the university. By using closed ended questions presented on a Likert scale, the researcher was able to collate unbiased responses from respondents on the factors influencing participation in UKZN HIV and AIDS support programme.

4.4.2. Semi-Structure Interviews

Semi-structured in-depth interview were used for the collection of data. Semi-structured in-depth interviews have been chosen as data collection tool because they lay between the other two types of interview - structured and unstructured (Mueller and Segal, 2015). Semi-structured interviews were the most effective form of interviews for this type of study since they give participants a chance to provide a broad range of detailed responses thus giving indepthness to the needed information (Brinkmann, 2014). With a semi-structured interview, the interviewer and the interviewee are equal partners allowing an in-depth collection of data (Creswell, 2014). Nine questions were asked for the present research study. The interview process followed a semi-formal process that allowed the participant to express themselves without following any strict pattern of thought and it also allowed the researcher to ask follow-up question to get clarification from the opinions voiced by the participant in line with the aim of the study.

4.4.3. Study Location

The data for this research was collected from the University of KwaZulu-Natal Howard College Campus. The University has five campuses namely: Medical school; Pietermaritzburg campus; Westville campus; Edgewood campus; and, the Howard College campus. UKZN operated based on a college model with four colleges: College of Agriculture, Engineering and Science; College of Health Sciences; College of Humanities; and, College of Law and Management Studies. Under the colleges there are 19 schools under the four colleges.

4.5. Sampling method

A study population refers to the entire group of persons or objects that are of interest to the researcher, in other words, those who meet the criteria that the researcher is interested in studying (Yin, 2017). The target population refers to the specific group of people that the researcher wants to study and has a working sampling frame (Yin, 2017). The target population in this study was African foreign students at the Howard College Campus duly registered for 2017 academic year from the various levels of degree programmes. The total population as at the time the study was carried out at Howard College Campus was approximately 1200 African foreign students as reported by the (International office UKZN, 2017).

Sampling is defined as a process of selecting subjects, events, behaviours, or elements for participating in a study. This is a process of selecting a few from a large population of people to become the basis for estimating the prevalence of an unknown portion of information, situation regarding the larger population (Burns and Grove, 2012). Also, Sample is the subgroup of the population a researcher is interested in to carry out research (Webster, 1985). Non-probability sampling method was used for the selection of respondents and participants for the study. Non-probability sampling is when the chance to be included in the study is available to some elements of population because selection of the sample depends on assumptions regarding the population of interest, which forms the criteria for selection (Trochim, 2006). Within this sampling frame, purposive sampling was adopted to recruit participants. Purposive sampling is a process when the researcher selects participants that possess characteristics to attain the objectives of the research. Patton (1990:169), opined that the motivation for this sampling strategy “lies in selecting information rich cases from which one can learn a great deal about issues of central importance to the purpose of the research.” The choice of the non-probability sampling method emanated from the interest of the research which is the need to collect information from Africa foreign students in UKZN without any particular order. The researcher has defined the specific category of the student population that

is needed for the research which is both male and female African foreign students. The researcher who is also an African foreign student with a rich social network amidst other students from different African countries, identified African foreign students for the recruitment strategy for the research study.

4.5.1. Qualitative sampling method

This study adopted non-probability sampling approach also known as non-random sampling where not all members of the population have a chance of participation in the study (Saunders, Lewis and Thornhill, 2012). In particular, the study employed purposive as the sampling techniques for the selected participants based on the characteristics of a population and objective of the qualitative study.

Etikan, Musa and Alkassim (2016), defined purposive sampling as a process of recruiting study participants based on certain characteristics defined by the judgment of the researcher. Both male and female African foreign students at the UKZN, Howard College Campus Durban, South Africa were included. This strategy helped the research to purposively choose students who are foreign nationals, since this is the identified population of the research. The method is useful so as to reach populations that is the objective of the study, as the social network of the researcher as an African foreign student became very useful in identifying participants and making referrals. The International student office was used to identify African foreign students for the study. In total, 8 in-depth interviews were conducted that lasted between 40 to 60 minutes each. The number of participants to be interviewed was not specific at the commencement of the study. The researcher gave room for addition in cognizance with the ideal nature of qualitative design as always emerging. However, data saturation guided the interviews, the researcher stopped conducting interviews when the information gather was becoming redundant, which implies additional or new information were not added for subsequent interview; this happened after 8 interviews. At this point, it is believed that data had saturated. More specifically, Creswell (2007) believes that the sample for a phenomenological study should be between 5– 25. Moreover, a phenomenological study is a research that allows the researcher to investigate the lived experiences of the participants (Lewis, 2015). Hence, the narratives that will be escribed and discussed in the study will be as related by the participants and not the perceptions and thought of the researcher.

The researcher used the list of international students provided by the international students' office as an opportunity to access participants, this was done because the international student office have access to all the names and information of international students in the university,

with their help, a list of African foreign students was obtained. From the list given by the international student office, contacts were made with African foreign students who were interested in the study; a total of 8 participants (5 male and 3 female) were purposively recruited for the in-depth interviews. Sequel to this, the identified participants were contacted, and interviews were conducted at their convenient location and time.

4.5.2. Quantitative sampling method

The selection of participants for this study considered their suitability to provide information suiting the context of the study (Palys, 2008; Patton, 2002). As discussed above, the list of international students provided by the university international students office was used in recruiting participants for the interviews was adopted in the distribution of the 291 questionnaires. The purposive sampling of respondents allowed the researcher to only distribute the study questionnaire among African international students on the Howard College randomly.

4.6. Sample size

A sample size is the total number of participants or respondents in any study (Mujere, 2016). A sample frame was used to identify from the population using various sampling techniques. A sample frame is a list of the population from which the sampling units are drawn (Mujere, 2016). A sample of 291 was considered representative of the total 1200 international students at UKZN Howard College (ICS and International office UKZN, 2017). This sample size was generated using computer-based sample estimation table. A sample size of 291 is generated from the sample size estimation tables based on 95% confidence interval. Online sample generation platforms are one of the most accessible and reliable sample reference frames because it adopts an advanced calculation aimed at creating a high degree of confidence in the proposed sample. Even though the calculations from the computer-based program noted 291 as an appropriate sample size for the study population of 1200. The researcher administered 291 questionnaires and analyzed these responses. Hence in total, 299 (291 quantitative respondents and 8 qualitative participants) people participated in this study.

4.7. Data Analysis

4.7.1. Quantitative data analysis

Quantitative data pertaining to factors that influence African foreign students' participation in HIV and AIDS prevention programme was analyzed using the Statistical Package for Social Sciences (SPSS) computer programme. Data collected using questionnaires was checked for accuracy and logged into the computer using SPSS. SPSS is used to clean, analyze, display,

and transform data (Trochim and Donnelly, 2007). In this study, descriptive univariate and bivariate statistics and graphical analysis, were used to examine the quantitative aspects of the data. The findings were presented using descriptive and inferential statistics that basically used percentage analysis.

4.7.2. Qualitative data analysis

Qualitative data collected during the interviews was analyzed using inductive thematic analysis. Inductive approach moves from the general to the particular and it is popular associated with the qualitative research design (Creswell, 2017). Thematic analysis of qualitative data occurs through the identification of themes or major concepts in a document or a collection of documents. It is a method of pattern recognition contained within the data, where evolving themes become the classifications or codes for analysis (Creswell, 2017). Thematic analysis allows for concise organization and detailed description of collected data in form of themes as it pertains to the factors that influence African foreign students' behavior in HIV AND AIDS prevention programmes at UKZN. Braun and Clarke (2006) provided a guide for thematic analysis process of qualitative data by explaining the six stages used for conducting this kind of analysis.

Table1: Braun & Clarke's six stages of thematic analysis

S/N	STAGES	DESCRIPTION
1	Become familiar with the data	Reading and re-reading of transcripts to get familiar with the body of data. It's important to take notes in this stage.
2	Generate initial codes	Reduce the data by organizing it in a meaningful and systematic way addressing research questions.
3	Search for themes	Examine codes and group related codes to create themes that say something specific about research questions.
4	Review themes	Modify and develop themes generated in the previous stage.
5	Define themes	Work on the themes by creating sub themes.
6	Write-up	This involves report writing

Source: Braun and Clarke (2006:77-101).

The essence of adopting a mixed method research approach was to enrich the findings of the research. It is also important to state that, since the research objectives and questions for this study are offshoots of the HBM theoretical parlance, the findings provide analytical description and enrich the quantitative and qualitative input in order to understand its relevance to contemporary health discussion as it relates to the behavior of African foreign students in UKZN HIV and AIDS Support programme.

4.7.3. Qualitative data validity and rigor

To have a trustworthy study, it is important to put in place several data collection measures that include credibility, transferability, dependability and conformity (Braun and Clarke, 2006). This study adheres to these four principles and procedures under investigation to ensure that the findings are credible in explaining the phenomenon under study. Credibility is defined as the level of trust that can be placed in the truth presented by the research findings (Macnee and McCabe, 2008). Transferability refers to the extent to which the research can be transferred to other settings with other participants and produce results that are not entirely different from the former (Bitsch, 2005). According to Bitsch (2005), dependability refers to “the stability of findings over time” (p. 86). Confirmability refers to the degree to which the findings of a study could be corroborated or refuted by other researchers (Siegel, 2015).

4.7.4. Data validity and rigor

Validity and reliability are the two important criteria used to measure concepts. Antonius (2013) defines validity as “the degree to which a study actually measures what it purports to measure”. Sekaran and Bougie (2010) states that there are several types of validity tests, some of those tests are face validity and content validity. According to Bless *et al* (2013), face validity is more concerned with the appearance of the instrument to the research participant. On the face of it, for example, how does participant find the instrument acceptable? Does it look easy or difficulty? This question allows the researcher use face validity when developing the questionnaire. This is as a result of the fact that the research participants should find it easy to read, understand and answer questions. According to Sekaran and Bougie (2010), content validity “*ensures that the measure includes an adequate and representative set of items that tap the concept*”. The researcher used content validity to ensure that as at when developing the questionnaire, all relevant questions were included in the present study.

Sijtsma, (2009) defines reliability as “*the quality of a measure that is consistent, which means that it gives consistent results when use with repetition on the same subject and in similar circumstances*”. There are few reliability measures, some of those measures are equivalent-form reliability and internal consistency reliability. Bless *et al*, (2013) states that equivalent-form also called parallel-form reliability requires the researcher to use equivalent form of instruments after the first testing. The researcher in a form of asking equivalent questions to ensure reliability of the measurement will use equivalent reliability. According Bless *et al*. (2013), the internal consistency reliability is a “*test of the consistency of respondents’ answers to all the items in a measure, to the degree that items are independent measures of the same*

concept they will be correlated with one another". It is the intention of the researcher to use the interterm reliability for the research study.

4.8. Ethical Considerations

Ethical approval for this research was obtained from the UKZN Ethics Research Committee Westville (see appendix 1) and a gate keepers' letters from the Howard College Campus office of the Registrar. The researcher-maintained privacy, confidentiality and anonymity of the respondents. The respondents' made an informed decision to participate or not to participate in the study based on the information provided about the study. The researcher also maintained the human dignity of all the respondents. All issues relating to ethical consideration and protection of the anonymity and confidentiality of the participants/respondents were detailed to the informed consent (see appendix 2) given to all participants/respondents before they were interviewed or filled the survey questionnaire. Hence, everyone that participated in this study was aware of the purpose of the research as well as the measure taken to protect them before participating.

4.9. Limitation of the study

Due to time constraints, this study was limited to only African foreign students at Howard College Campus. However, the sample was reliable because it allows the study to generate reliable and credible findings. The findings of this study remain valid, objective, precise, and not biased.

4.10. Conclusion

This chapter explains the overall framework on which the approach of the findings was developed and executed - research design, methodology, sampling, data collection and limitation of the study. The case study research design adopted allowed the research to gain more insights from the qualitative and quantitative research methods in understanding the African foreign students' behavioral practices towards the institution HIV AND AIDS support programme phenomenon. The in-depth interview and questionnaire were the data collection method adopted to elicit information from respondents on their view at the HIV and AIDS support programme phenomenon in UKZN Howard College Campus. Quantitative data was then analyzed using the Statistical Package for Social Sciences (SPSS) and thematic analysis was used to analyze qualitative data obtained through the data collection process of the study. Lastly, the chapter showed ethical considerations and the limitations of the study.

CHAPTER FIVE

ANALYSIS AND INTERPRETATION OF RESULTS

5.1. Introduction

This chapter introduces the results of the analysis carried out in this study. The presentation of the results is outlined as follows: foremost, the results started with the descriptive statistics of each variable utilized, as well as the Cronbach alpha coefficients for each of the instruments. Also, the chapter presented the results of regression and correlation analysis in terms of the relationships found among the variables considered in this study and highlighted the results obtained with the help of statistical tool (chi square and t test). In the second part of the chapter, a detailed analysis of the result of the qualitative interviews conducted were presented. These qualitative findings were presented thematically; the data from the interviews were organized using Nvivo software application. The qualitative analysis also adopted a descriptive approach to show the patterns of relationships between various emerging themes in the study. The current study employed series of analysis, which has been categorized according to the five research questions in a bid to understand African foreign students' behavioral practices towards the UKZN HIV and AIDS support programmes.

5.2. Phase One: Quantitative Interpretation of Results

5.2.1. Socio-demographic characteristics of the study population

The research participants of the present study consisted students from different colleges in UKZN, Howard College Campus. For the present study, the outcome expectation rate is 78%. Demographical information consists of socio-demographic characteristics used to classify the responses of the respondents as well as understanding the results obtained from this study. Most of the participants comprised of males (54.0%) compared with females (46.0%). Higher percentage of participants in this study representing 47.1% falls within the age grouped 26-30 years while the least age group was those in the category of 36 years and above years representing 2.4%. Apart from students from Southern Africa, Table 4.2.1 highlighted that greater participants in this study were from West Africa, accounting for a cumulative of 32% of the entire study. In addition, it was reported that majority of the students are not married as the percentage shows 58.8% compared to 35.4% of the married students within the same population. Moreover, the sexual orientation that are common mostly among the students as revealed by our study is heterosexual which accounts for a total percentage of 93.8%.

Table 5.2.1: Socio-demographic characteristics of the study population

Item	Category	Frequency	Percentage
Gender	Female	134	46.0
	Male	157	54.0
	Total	291	100.0
Age group	18-20 years	28	9.6
	21-25 years	56	19.2
	26-30 years	137	47.1
	31-35 years	63	21.6
	36-40 years	7	2.4
	Total	291	100.0
Educational level	Undergraduate	90	30.9
	Postgraduate	201	69.1
	Total	291	100.0
Region	West Africa	93	32.0
	East Africa	40	13.7
	Northern Africa	39	13.4
	Southern Africa	99	34.0
	Central Africa	20	6.9
	Total	291	100.0
Marital status	Married	103	35.4
	Single	171	58.8
	Partnered	6	2.1
	Divorce	4	1.4
	Separated	7	2.4
	Total	291	100.0
Sexual orientation	Heterosexual	273	93.8
	Homosexual	9	3.1
	Bisexual	3	1.0
	Unsure	6	2.1
	Total	291	100.0
Faculty of study	Humanities	97	33.3
	Agriculture	68	23.4
	Engineering	77	26.5
	Health Sciences	34	11.7
	Law/Management	15	5.2
	Total	291	100.0

Source: Authors Compilation 2018

The descriptive statistics results highlighted is that most of the courses pursued by the students are from the College of Humanities. The descriptive statistics shows that about 33.3% of the students enrolled in this study came from the College of Humanities. The least students, representing about 5.2% are from the College of Law and Management.

As shown in Figure 5.1 below, out of 291 respondents, 41.58% were in their second year of study while 7.22% were in their fifth year of study. It is also important to state that majority of the participants in this study (58.8%) are single, hence, they are a viable population to examine for dynamics of sexual behaviour and HIV prevalence. This type of graphical representation is necessary so as to enable better analysis and interpretation of the data since the focus of the study is on foreign nationals within the UKZN.

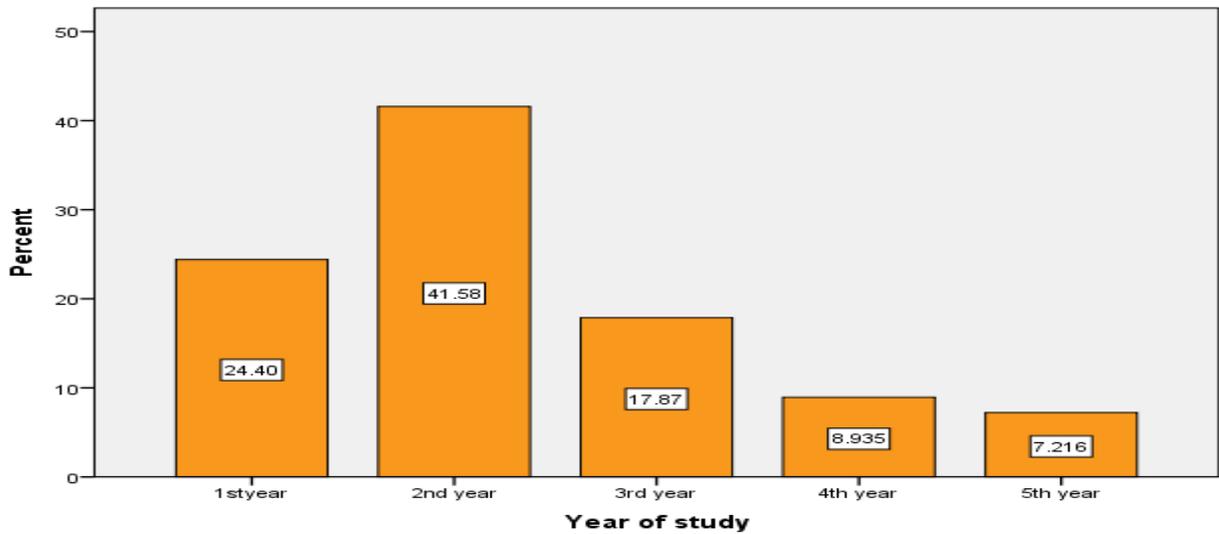


Figure 5.1: Graphical representation of student year of study across different faculties

Out of 291 respondents, 132 (45.4%) indicated that they are Christians as shown in Figure 5.2. This study affirmed that Christianity is the most dominant religion among the international students. In addition, less than 1% of the international students practiced African traditional religion.

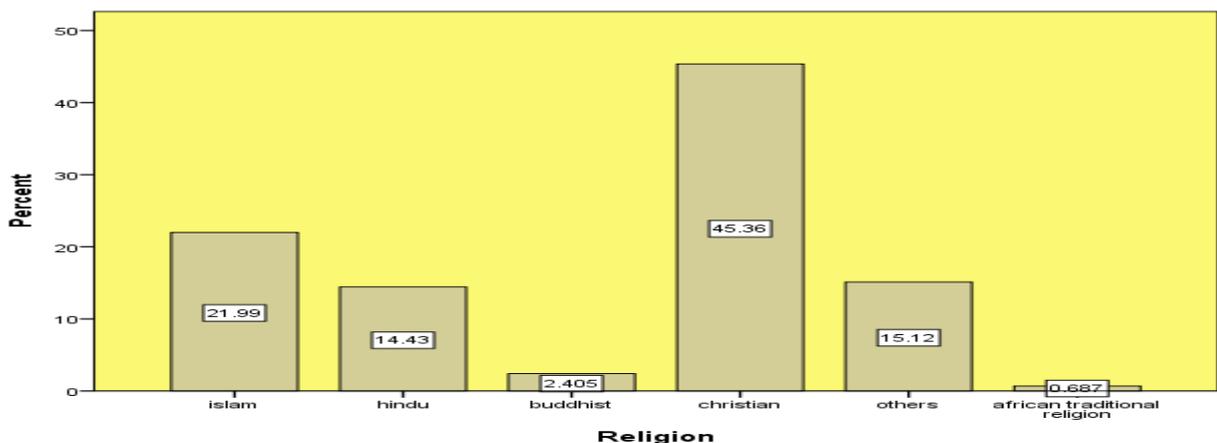


Figure 5.2: Graphical Representation of Respondents' Religion belief

As shown in the Figure 5.3, the respondents were classified in four categories depending on their sexual orientation. The first category represents 93.81% was dominated by heterosexual orientation. Few international students were unsure of their sexual orientation.

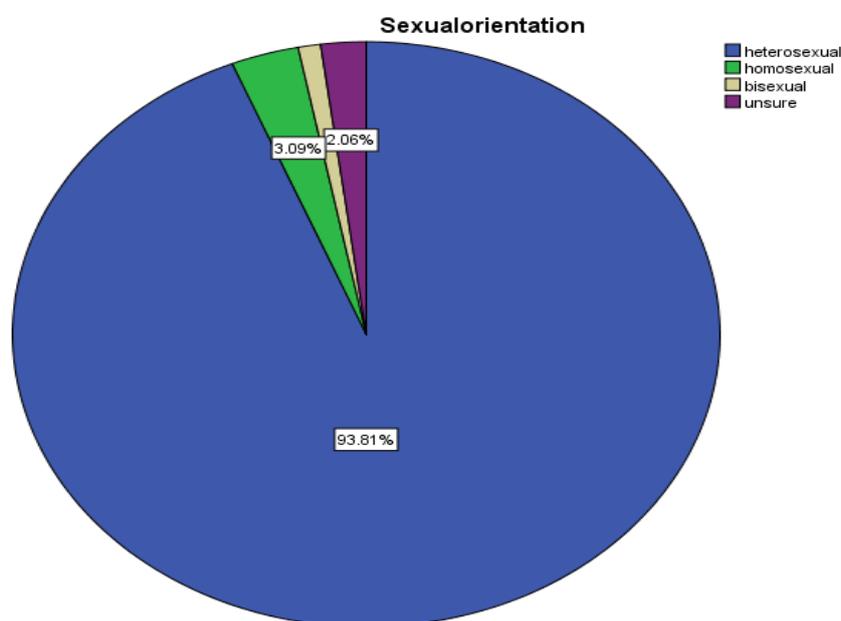


Figure 5.3: Graphical distribution of marital status

5.2.2 Pearson Correlations Analysis between all the items of Behavioural Practices among African foreign students

The study analysis cross checked for significant relationship between all items measuring behavioral practices among African foreign students using Pearson correlation analysis. The relationships between various categories of behavioral practices variables for the present study were assessed using Pearson product-momentum correlation coefficients. The correlations between the perceived threat, perceived benefits, perceived barriers, cues to action, self-efficacy and behavioral practices are indicated in Table 5.2.4 below. The analysis highlighted that there was a strong positive correlation between perceived benefits and cues to actions ($r = 0.566$, $p < 0.01$). The result also indicated that there is a strong correlation between cues to action and self-efficacy as $p < 0.01$. Further, other results show that there is a moderate correlation between the other items of the behavioral practices. A further inspection of the Table shows that a positive correlation coefficient was found to exist between behavioural practices as a variable and perceived threat but the correlation was not significant.

Therefore, this implies that among African foreign students, there is no perceived threat when it comes to sexual orientation. This may be attributed to so many factors such as different exposures in life. Essentially, while there exists significant relationship between behavioral practices and susceptibility to contracting HIV, this study reveals that among the African foreign students examined in this research, sexual orientation is not significantly related to the

perceived threat of contracting HIV and AIDS. This implies that sexual orientation does not make any of the participants more prone or less prone to contracting HIV and AIDS. These could also be influenced by the fact that most of the African foreign students are heterosexual (93.8%) hence, there was no statistically significant data to examine the susceptibility of homosexuals in the study.

Table 5.2.4: Pearson Correlations Analysis between all the items of Behavioural Practices among African foreign students

		Perceived Threat	Perceived Benefits	Perceived Barriers	Cues To Action	Self-Efficacy	Behavioural Practice
Perceived Threat	Pearson Correlation	1	.284**	.152**	.398**	.422**	.033
	Sig. (2-tailed)		.000	.009	.000	.000	.573
	N	291	291	291	291	291	291
Perceived Benefits	Pearson Correlation	.284**	1	.044	.566**	.497**	.077
	Sig. (2-tailed)	.000		.456	.000	.000	.190
	N	291	291	291	291	291	291
Perceived Barriers	Pearson Correlation	.152**	.044	1	-.102	-.045	.019
	Sig. (2-tailed)	.009	.456		.082	.444	.752
	N	291	291	291	291	291	291
Cues To Action	Pearson Correlation	.398**	.566**	-.102	1	.592**	.038
	Sig. (2-tailed)	.000	.000	.082		.000	.516
	N	291	291	291	291	291	291
Self-Efficacy	Pearson Correlation	.422**	.497**	-.045	.592**	1	.027
	Sig. (2-tailed)	.000	.000	.444	.000		.641
	N	291	291	291	291	291	291
Behavioural Practice	Pearson Correlation	.033	.077	.019	.038	.027	1
	Sig. (2-tailed)	.573	.190	.752	.516	.641	
	N	291	291	291	291	291	291

Correlation is significant at the 0.01 level (2-tailed).

5.2.2. Reliability Analysis

Reliability and validity analysis were conducted for the employed engagement and the results are presented. A total of 291 participants completed the questionnaire. The reliability analysis showed that the data were reliable as the Cronbach's Alpha value was 0.808. Cronbach's alpha is a measure used to assess the reliability, or internal consistency, of a set of scale or test items, and Cronbach's alpha is one way of measuring the strength of that consistency.

Reliability Statistics	
Cronbach's Alpha	n of Items
.808	35

Reliability and validity analysis were conducted for section B and the results are presented below.

Dimensions	Number of Items	Cronbach's Alpha
Perceived Threat	5	.615
Perceived Benefits	7	.542
Perceived Barriers	5	.722
Cues to Action	7	.521
Self-Efficacy	5	.527
Behavioural Practice	6	.692

The reliability and validity measures for each part of different section B of the survey questionnaire are provided in Table above. The coefficient alpha was first computed to assess the reliability of the scale. The coefficient varies from zero to one, and values less than 0.50 generally indicates unsatisfactory reliability, while those above 0.70 are deemed satisfactory. A Cronbach alpha value of 0.615 was computed for perceived threat, 0.542 for perceived benefits, 0.722 for perceived barriers, 0.521 for cues to action, 0.527 for self-efficacy and a Cronbach alpha value of 0.692 was computed for behavioral practice, which are well over the recommended value of 0.70. In addition, Cronbach alphas of above 0.50 were computed for each of the individual dimensions in section B, which are deemed satisfactory.

In order to test the construct validity, the average inter-item correlation was computed, which, according to Sharp, (2013), needs to be between 0.15 and 0.50. An inter-item correlation value of 0.320 was computed for behavioral practice and 0.245 for self-efficacy. These values indicate that the items in the scale are both sufficiently correlated to suggest convergent validity, yet not so highly correlated from measures from which they are intended to differ, which indicates the presence of discriminant validity (Sharp, 2013). This implies that the research instrument in the study does measure what it is supposed to measure (Malhotra, 2010:319).

Kruskal-Wallis Test was performed to compare the overall mean score for behavioural practices as a variable or item among the different age groups of the participants. It was found

that the overall mean rank was higher among the age group of 26-30 years followed by 21-25 years. In addition, the mean ranks were found to be statistically significant among the different age groups ($p = 0.046$).

Table: 5.2.5 Kruskal-Wallis Test output

	Age	N	Mean Rank	Chi-square	p-value
Behavioral practices	18-24 years	43	29.25	3.716	0.046
	18-20 years	34	44.25		
	21-25 years	31	49.46		
	26-30 years	45	54.89		
	31-35 years	42	42.74		
	36-40 years	96	47.38		
	Total	291			

5.3. Phase Two: Qualitative Interpretation of Results

To validate the result obtained in the first phase of our analysis (questionnaire), the qualitative approach was also considered. Over time, the qualitative approach has been proven to give detailed information compared to the questionnaire approach. Qualitative research gives a clearer picture on how people feel, what people know, how they think and how they act based on the problem under review in a more elaborate way compared to the questionnaires approach.

The researcher was guided by the Health Belief Model (HBM) because of the construct of the model directly addressing the research objectives. Thus, themes focused on specifically looking for issues of perceived risks, perceived benefits, barriers, cues to action, self-efficacy and also level of behavioural practices.

The characteristics of the interviewed participants are useful in order to understand the backgrounds of the interviewed persons. Most of this information has been collected through the use of a semi-structured interview schedule. However, some information were also collected through the interviews and will be briefly summarized at this point. Eight of the interviewed African foreign students are males and females and they are between 25 and 40 years old. The respondents come from different countries in Africa. The time the African foreign students have already been studying in KZN varied widely from 1 to 4 years.

5.3.1. Influence of perceived risk of involvement on African foreign students' behavioural practices towards the UKZN HIV and AIDS support programme

South Africa has a very high prevalence of HIV and AIDS (The South Africa National Survey, 2016), literature identifies the country to have the highest number of infected persons in the world (UNAIDS, 2010). The 2017 South African midyear population estimates revealed that the overall HIV prevalence rate is approximately 12.6% among South African population with approximately 7.06 million people living with HIV in 2017. The survey also showed that 18% of youths (15-49 years) of the population are HIV positive. According to Kayode and Ogu (2011), young people are more vulnerable to HIV and AIDS due to engaging in risk behaviours more than other age groups. The youths are more exposed to contact HIV and other sexually transmitted diseases according to Edith and Hadiza (2013). To curb the spread of the disease, young people in the population are to be targeted and the education sector is the best place to find these young people since there are high number proportionately of educated persons that have become victims of the epidemic (Asemota, 2007).

When asked about the behavioral practices of African foreign students to reduce the risk of contracting HIV, most students stated that they have been warned from their home country of the high prevalence of HIV and AIDS in South Africa and they came prepared knowing of the epidemic. South Africa is known to have high number of HIV infected persons in Africa in spite of efforts made to reduce transmission and the provision of anti-retroviral therapy (ART) (Mohamed, 2016), so many students know about the high number of people living with HIV in KwaZulu-Natal (Johnson, Dorrington, Moolla, 2017). African international students in UKZN are aware of the prevalence of HIV and they come to the country prepared. One of the interviewed students stated that;

“Just being in South Africa makes me scared because I have heard that the country has high number of people suffering from HIV and AIDS, I know I am at risk of getting the disease, so I try to be very careful all the time so as not to contract the disease (Mochee/IDI/2018).”

African foreign students know that just by being in South Africa, their risk of being infected with the disease is high, and that makes them change their behavioral practices and also encourage them into participating in the HIV and AIDS programme so as to learn more about the epidemic and learn more ways of protecting themselves.

5.3.2. Influence of perceived benefit on African foreign student's behavioural practices towards the UKZN HIV and AIDS support programme

UKZN HIV and AIDS Support Programme is designed to curb the spread of HIV amongst students, providing counseling services, provide healthy sexual practice information and other responsibilities geared at curbing the spread and control of the disease. The interviews with 8 of the African foreign students revealed that this programme has some benefits to students of UKZN. Almost all the students interviewed in the study agreed that the HIV and AIDS support programme is doing a good job of curbing the spread of HIV and AIDS around the campus.

Some countries in Africa are not open when it comes to sexual related issues such as HIV and AIDS, due to the fact that they lack proper knowledge and information about the disease; this can be very dangerous in a country like South Africa where there is high prevalence of HIV and AIDS (The South Africa National Survey, 2016). There is a care and support outreach unit for students at the University of KwaZulu-Natal. HIV and AIDS support programme work in collaboration with the Campus Health Clinic ensuring that students receive HIV counseling and testing services. The campus healthcare facility provides treatment, care and support services for students both local and foreign, also, provides HIV counseling and testing and appropriate healthcare interventions for students who test positive. This programme can be very useful for foreign students who have little knowledge of the disease on how to be prevented from being infected with the disease. A foreign student by the name of Mochee stated that:

“UKZN comprise of students from different social and cultural backgrounds, people with different mindset regarding HIV and AIDS. A programme like this is important to educate student and create awareness about the disease. It will be very beneficial to students who come from countries where there is silence on issues about HIV and AIDS (Mochee/IDI/2018)”

Another benefit of the HIV and AIDS support programme in UKZN as identified by one of the interviewed students is that it helps reduce the risk of HIV infection among students in the university. By creating awareness of HIV and AIDS, students get to know how HIV is spread; how it can be transferred from an infected individual to an uninfected individual. The programme is tasked with tackling the problem of HIV and AIDS epidemic in UKZN; this includes creating awareness of prevention strategies by educating students and staff of UKZN on the risk of HIV and raising awareness in an attempt to reduce the level of risky behaviors among students. This means that the UKZN HIV and AIDS support programme promotes

awareness of the risk of HIV and help reduce risky behaviors such as sex work, drug injections, men having sex with other men, sexual relationship with multiple partners and unprotected sex between partners of opposite sex (WHO, 2009 and UNAIDS, 2016). The programme educates people on how to protect themselves from getting infected with HIV and also educate those suffering from the disease on how not to spread the disease. For example, a student stated that:

“This HIV and AIDS support programme is very important and beneficial in this university considering the prevalence of HIV and AIDS in South Africa. It is very crucial for the university to have such a programme so as to reduce the risk of contracting the disease in campus (Chuga/IDI/2018)”

Students in UKZN get to benefit from the HIV and AIDS support programme through change in their mindset towards people suffering from HIV and AIDS which in turn changes their behavior towards victims of the disease. This behavioral change towards people who are suffering from HIV and AIDS has helped reduce stigmatization towards those who are sick. With more awareness and the knowledge about the disease gotten from the programme, students become more supportive to people suffering from the disease.

“I think this programme has helped in reducing stigmatization on people suffering from the disease. I can see that people become more aware of the disease that people are not afraid of disclosing their status (Vincent/IDI/2018).”

The UKZN HIV and AIDS support programme has succeeded in increasing public knowledge of HIV and AIDS thus has reduced the level of discrimination against individuals who are infected with HIV. In some countries, people are frightened of infected individual thus stigmatizing them; they are scared of sharing plates or even hugging the infected person. Students from such countries get informed of HIV and AIDS through the programme and thus reduces discrimination against infected persons. One of the interviewed foreign students disclosed that the programme deals with testing and treatment of HIV and AIDS among students in campus. It is not beneficial to those students who have not contacted HIV and AIDS but also the students who are already infected with the disease. Students get to know their status and also get their medication and other important information.

“I think, according to what I see, the programme is beneficial to students. Students have the ability to know their HIV and AIDS status and also get their ARV drugs from the HIV clinic and also get other important information on the disease (Bella/IDI/2018).”

Apart from immediate benefits of the UKZN HIV and AIDS support programme, the programme has long-term benefit to foreign students. Students go back to their home countries with the knowledge obtained from the programme and with that, they can help fight against the spread of HIV and AIDS in their countries and also help those suffering from the disease. A student revealed that:

“Programmes like these have long-term effect on foreign students, students get to learn more about HIV and AIDS through these programmes and end up spreading the information to their home countries. Whatever good thing they learn from the programme, they could take some of these things to their home and help fight against the spread of HIV and AIDS (Austin/IDI/2018).”

The UKZN HIV and AIDS support programme has immediate and long-term benefits among foreign students. Students check their HIV and AIDS status and get important information how to manage the disease; those who are not infected with HIV are made to know of ways to protect themselves and prevent the spread of the disease; with the spread of awareness about the disease, there is reduction in stigmatization towards victims of HIV and AIDS. The programme has created more awareness of the disease and thus helping foreign students survive in the society plagued with high prevalence of HIV and AIDS.

5.3.3. Barriers that militate against African foreign student’s behavioural practices towards the UKZN HIV and AIDS support programme

With the high prevalence of HIV and AIDS in South Africa (Pettifor *et al.*, 2004; UNAIDS, 2008; Katz and Low-Ber, 2008), HIV and AIDS policies and prevention programmes have been put in place in South African universities with the aim of implementing interventions for preventing HIV and AIDS infections (Van Wyk and Pieterse, 2006). The intervention programmes include: behavioral change; education and awareness rising on HIV prevention; voluntary counseling, testing and provision of antiretroviral therapy (ART) and other support services. With all these benefits obtained from participating in UKZN HIV and AIDS support programme, there is still huge number of international students who are not yet to participate in this programme.

The information gathered in the question of foreign students’ knowledge of UKZN HIV and AIDS support programme and its implementation, it was observed that many of the interviewed students had little or no knowledge about the programme, none of the student were identifies to participate in the programme. This section points out the barriers of UKZN African foreign

students' participation on the HIV and AIDS support programme. It is important to know what is stopping these students from taking part in this programme.

5.3.3.1. Lack of enough publicity about the programme

Students revealed that the Information about the programme is not well spread across the University for all students to know. Students get to know about the programme from friends as identified by Chuga; *“the programme is not too popular; I got to know about it from a friend. I also see them around the housing department. What I know is that they do test HIV that is all; I know nothing serious about the programme (Chuga/IDI/2018)”* Lack of enough publicity about the programme makes it difficult for some foreign students to know that such programme exists. For example, a foreign student revealed that:

“There is no much publicity or awareness of the existence of the programme (Kosi/IDI/2018).”

Another student went further to explain that lack of enough publicity is as a result of the structure of the university where there is no platform where all students can meet and get to know more about activities in the university, there is interaction between people in the same class or school or those living in the same residence. It makes it difficult to know of the UKZN HIV and AIDS support programme and even taking part in the programme activities.

“The way the university is structured, we do not interact with people outside our immediate environment... people that are not within your school or your class. There are no platforms where you can meet everybody except you stay in the same residence. There are some of us who do not stay at residence, what are we going to do? These kinds of activities become difficult to know of their existence (Chuga/IDI/2018).”

In higher institutions, postgraduate students do not involve themselves in school activities such as sports events and gatherings thus making it very difficult for them to know about programmes going on in the university.

5.3.4. Foreign students home country's perception of HIV and AIDS

Ignorance, fear and denial towards HIV and AIDS has led to stigmatisation of and discrimination against people living with HIV and AIDS and their family members (Kidanu, Mbwambo, Nyblade and Bond, 2001; Parker and Aggleton, 2003). HIV infected people are devalued and flawed in the eyes of others because of negative perception of HIV and AIDS. Stigma towards people living with HIV and AIDS is due to perceived contagiousness of the

disease and the seriousness of the disease that HIV and AIDS has no cure. According to Meiberg, Bos, Onya and Schaalma (2008), stigma has been identified to be one of the factors hindering people's participation in HIV and AIDS support programs: keeps people away from seeking to know their HIV status, discussing prevention and changing risky behaviours. Therefore, fear of stigma decreases international students' participation in the HIV and AIDS support programme in UKZN.

Students identified that the perception of HIV and AIDS by the students' home country acts as a barrier to participating in the programme activities. There are countries where there is silence when it comes to sexual related issues, this makes students from those countries feel embarrassed when it comes to participation in sexual related programmes such as the HIV and AIDS support programme.

“The barriers of African foreign students' participation on UKZN HIV and AIDS support programme will depend on the country the student is coming from. In some countries, HIV and AIDS is not openly discussed, so there are some other sexual issues, students from such countries will not take part in such programmes (Austin/IDI/2018).”

Another student revealed that the stigma attached to HIV and AIDS in some African countries has resulted in more local students than African foreign students in South Africa participating in the HIV and AIDS support programme. The programme does not consider this fact when dealing with foreign students on HIV and AIDS related issues.

“I think more local students embrace the HIV and AIDS support programme than African foreign students because there is less stigma with HIV and AIDS with South African students than it is with students from other African countries. The programme is acting like foreign students and local students have the same perception of HIV and AIDS, they treat everyone equally. Some foreign students feel embarrassed taking part in such programmes (Kanabe/IDI/2018).”

5.3.4.1. Fear of hidden costs related to programme activities

Another identified barrier of African foreign students' participation in the UKZN HIV and AIDS support programme is the fear of hidden costs in activities of the programme such as HIV testing. Students are not sure whether these activities costs will be covered by their health insurance; to stay clear of any problem, they decide to stay away from such activities. Kanabe explains further:

“Most students hesitate joining such programmes because of fear of hidden fees behind the services offered in such programmes. Foreign students are not sure whether their health insurance will cover for HIV testing; they are not sure which of the services are free and which is not. These things are not clear, so for caution, foreign students stay back and not participate. (Kanabe/IDI/2018)”

There are several barriers that hinder African foreign students from joining the HIV and AIDS support programme, some of the identified barriers include; lack of enough publicity about the programme, foreign students home country’s perception of HIV and AIDS and fear of hidden costs related to programme activities. When these things are taken into the consideration, it will increase UKZN African foreign students’ participation in the programme.

5.3.5. Influence of cue to action on African foreign student’s behavioural practices towards UKZN HIV and AIDS support programme

The University of KwaZulu-Natal (UKZN) Information Communication Service Department report (2017) and the International Office UKZN (2017) recognized the presence of about 2,000 international students enrolled at the five campuses of the university who represents a significant segment of the university’s population. UKZN HIV and AIDS Support Programme aims at engaging students in activities that are geared at curbing the spread and control of the disease in the campus, this makes it important for African foreign students to take part in the programme. When asked of their knowledge about the programme, students seem to have little knowledge about the programme. Many of them had the general idea about the programme and none took part of the activities of the programme to have detailed information about the HIV and AIDS support program.

There are some students who seem to know about the HIV and AIDS support program in the university but that was not enough to make them participate in the activities of the program. A foreign student identified as Vincent showed to have some knowledge about the program and the activities;

“It is a program targeted to people suffering from HIV and AIDS and also a programme that tends to create awareness about HIV and AIDS, its implications and how you can prevent and contain it. Though I do not know much about it but I use to see them around like every semester (Vincent/IDI/2018).”

One of the foreign students went further to explain that he learned of the presence of the programme by seeing banners around the campus and even knew of their office and wanted to

join the programme but found no one in their office. This shows that some foreign students want to join the programme but lack proper direction and support.

“I have seen banners around the campus and I see people going to their office around opposite T-Wale which is by William Residence. One time I wanted to go there but there were no people in the office, so I do not really understand their working hours (Kanabe/IDI/2018).”

Most information foreign students get are from friends who also do not have enough information and knowledge about the programme and from seeing people wearing t-shirts with UKZN HIV and AIDS support programme written on them. This is not enough to convince foreign students to participate in the programme. They just end up knowing the existence of the programme and not detailed information from people who are involved with the programme.

“The programme is not too popular; I got to know about it from a friend. I also see them around the housing department. What I know is that they do test HIV that is all; I know nothing serious about the programme (Chuga/IDI/2018).”

Another student also added;

“I do not know so much about the programme but I have seen a number of students in some T-shirts with UKZN HIV and AIDS support programme on it. From that I know that there is a HIV and AIDS support programme but I do not know of the implementation of the programme (Austin/IDI/2018).”

Other foreign students revealed that they have heard of the HIV and AIDS support programme but they do not know of its activities or its implementation. This shows that there is not enough publicity about the programme especially among foreign students. Students just hear of it from friends, but they have not enough information and knowledge about the HIV and AIDS support programme to make them want to take part in the programme.

“I know the university has a support programme for HIV and AIDS and there is a wellness clinic for HIV and AIDS but I do not know much about the programme (Bella/IDI/2018)”

Two of the interviewed foreign students in this study revealed that their knowledge of the HIV and AIDS Support Programme is limited to testing of HIV and AIDS. They do not know of other activities of the programme. For example, one of the foreign students stated that;

“I just know it is a programme that was introduced by the university for students’ to check their HIV status in campus (Mchee/IDI/2018).”

With all these said, there are also some students who do not have any awareness of the presence of HIV and AIDS support programme. One of interviewed African students disclose to have little or no knowledge about the HIV and AIDS support programme in the university. The students stated that:

“I have little or no information about the UKZN HIV and AID support programme (Kossi/IDI/2018).”

Studies in other African countries such as Kenya, Nigeria and Ghana show that university students are at high risk of HIV infection due to the fact that most of them comprise of adolescents and youths who are identified to engage in risky sexual behaviors (Osonwa *et al.*, 2013; Oppong and Oti-Boadi, 2013; Mberia and Mukulu, 2011; Adam and Mutungi, 2007). This makes it important for all students in higher institutions to participate in HIV and AIDS support programme. Foreign students’ knowledge about the UKZN HIV and AIDS support programme is limited to HIV and AIDS testing and few students know about other activities of the programme. Students hear of the existence of the programme from friends and even see members of the programme around campus wearing t-shirt written the programme tag. There are also students who do not know that there is HIV and AIDS support programme in campus. The programme does not create more awareness of its existence for all students to know about and participate in its activities.

5.3.6. Level of behaviour practice of African foreign students towards the UKZN HIV and AIDS support programme

Most of the interviewed international students identified the use of protection when having sexual intercourse with their partners. The use of condom when having sexual intercourse was identified to be crucial so as to protect themselves from getting infected with HIV in case their partners are HIV positive. Chuga revealed that:

“From home I came prepared, I was told of the prevalence of HIV and AIDS in the country, I even carried condoms from home and I try as much as possible to know my status at least after every three months (Chuga/IDI/2018).”

Condom use has been identified to be important in preventing the transmission of sexually transmitted infections (STIs) and sexually transmitted diseases (STDs) including sexual transmission of HIV. WHO (2009) revealed that the correct and consistent use of not only male

condoms but also female condoms reduces the risk of HIV transmission by 80% to 90%. This means that students who use condoms are at low risk of getting infected with sexual transmission of HIV.

WHO (2009) advises that free condoms should be provided to people who need most and also the availability of condoms to sexually active people so as to reduce the number of HIV infections and thus preventing of the spread of HIV. The youths being more exposed to contact HIV and other sexually transmitted diseases, the University of KwaZulu-Natal has seen the need to provide condoms to its students. Through the interviews, students revealed that the University of KwaZulu-Natal is very supportive in the fight against the spread of HIV and AIDS in campus by ensuring that students engage in safe sexual intercourse through distribution of free condoms around the campus. Students have no excuse that they could not afford to buy condom or that they could not access condoms. For example, a student stated that:

“The university is very supportive, they have tried to ensure that students engage in safe sex, there are free condoms distributed all over the campus such as in the toilets and residences (Bella/IDI/2018).”

Even with using condoms to protect themselves from HIV and AIDS, it is important for students to avoid not having many sexual partners. Students identified having multiple sexual partners as one of the risk factors that put one in danger of getting infected by HIV and AIDS. Sometimes, one might decide not to have multiple partners so as not to increase the risk of being infected with HIV, but the partner will still have other partners, so as to just avoid all the complications in relationships, some students decide to abstain from sexual activities so as to stay safe.

“I was told from back home that South Africa has high prevalence of HIV and AIDS, so I try to avoid risk behaviours such as having multiple partners and even abstain from sexual activities (Austin/IDI/2018).”

HIV prevention strategies include changing individual behaviors that may increase people's vulnerability to HIV infection; behaviours such as reducing the number of sexual partners should be promoted (Coates, Richter and Caceres, 2008). Mutinta (2014), argued that multiple sexual partners alongside the practice of risky sexual behaviour at the expense of health are major factors for the spread of HIV among university students in South Africa. In the same vein the denial of the presence of the disease for maximum pleasure is an influencing factor for

continuous spread, Mutinta *et al.*, (2012) referred to this as HIV denialism. Behavioral change has shown success in preventing the spread of HIV. It is safe for an individual to stick to having only one sexual partner and the two should adhere to knowing their HIV status in the beginning of their relationship so as to avoid being infected with HIV. The more the number of sexual partners the person has, the higher the risk of HIV infection. If a person with many sexual partners gets infected with HIV from one of the partners, it creates a chain of HIV infections to other partners thus increasing the rate of spread of HIV and AIDS.

Although HIV is majorly transmitted through sexual intercourse, there are other minor risk factors that may lead a person to get infected by the disease. One student went further to say that he does protect himself from getting infected with HIV by not sharing any sharp objects including shaving machine. Most foreign students carry their own shaving machine to barbing salons, they fear using the same shaving machines because of the prevalence of HIV and AIDS in the country and in campus. Kosi stated that:

“I am well enlightened about the disease, people warned me back home about HIV and AIDS in South Africa, so am very careful. I even bought my own barbing machine and carry it to the salon whenever I go to barb my hair (Kosi/IDI/2018).”

HIV can also be transmitted from one person to another through sharing of sharp objects such as needles (WHO, 2009). Sharing of these objects can expose blood through cuts and cause HIV to pass from HIV infected individual to an uninfected individual. Anything that can cut an individual is not to be shared among individuals or it should be sterilized so as to decontaminate it before being used by another individual to avoid exposing the individual to infections such as HIV. Barbing machines or clippers should be sterilized before use but many barbing salons do not do that, thus keeping their clients at risk of HIV infections. To stay safe, many people with knowledge about HIV transmission and prevention prefer carrying their own barbing machines when visiting these salons.

UKZN African foreign students engage in the use of condom, avoiding multiple sexual partners and also avoid sharing sharp objects in order to protect themselves from getting infected with HIV. Some students even opt for abstinence so as to stay safe from HIV infection.

5.4. Conclusion

The chapter presented a detailed quantitative and qualitative data analysis. The findings of the study revealed that most male students (54%) participated in the study. Majority of the participants (47.1%) are from 26 years old to 30 years old, also, the data showed that most of

the participants are not married and 93.8% of the participants are heterosexual. The data also revealed that high number of African foreign students who participated in the study are from West Africa.

The study revealed the higher the students perceive the risk of being infected with HIV, the more their involvement in the UKZN HIV and AIDS support programme and the more they make effort to prevent being infected with HIV. The perceived benefit of participating in the programme influences students into participating in the activities offered by the programme. These benefits make students to continue to participate in the programme thus enabling them to shape and change their behavioral practices so as to help them in the fight against HIV and AIDS. Despite several barriers to participation by African foreign students in the UKZN HIV and AIDS support programme, the campaigns and activities of the programme help students in making responsible decisions about their health.

The next chapter will present the discussions of findings, recommendations and the conclusion.

CHAPTER SIX

CONCLUSION AND RECOMMENDATION

6.1. Introduction

The previous chapter dealt with analysis, presentation and discussion of both quantitative and qualitative data. Statistical tables and figures were used to analyze quantitative data and the qualitative data was discussed by themes that emerged from the study. This chapter on the other hand presents the overall summary of the findings obtained from the study, conclusion of the study and recommendations proposed by the interviewed UKZN African foreign students and the researcher on how to increase the participation of foreign students in the UKZN HIV and AIDS support programme.

South Africa has a very high prevalence of HIV and AIDS; literature identifies the country to have the highest number of infected persons in the world. Young people are more vulnerable to HIV and AIDS due to engaging in risk behaviours more than other age groups. The youths are more exposed to contact HIV and other sexually transmitted diseases; it is in the education sector that most youths can be found. The fight against the epidemic of HIV and AIDS will require a holistic effort that takes into consideration the dynamics of the socio-cultural factors influencing the management of health and illness. It is also important that universities become more intentional with the inclusion of the various demographic spread within their institutions in the fight against the prevalence of HIV.

The way South African students perceive HIV and AIDS is quite different from how other students from other countries view HIV and AIDS. This means that the perception of the disease in some countries is different; a programme like the UKZN HIV and AID support programme can be useful in creating awareness of the disease around campus and thus breaking the silence and reducing the stigma associated with HIV and AIDS among some foreign students.

UKZN HIV and AIDS Support Programme is designed to curb the spread of HIV amongst students, providing counseling services, provide healthy sexual practice information and other responsibilities geared at curbing the spread and control of HIV and AIDS. This kind of information should not be obtained by few but all students in campus especially to foreign students who are not used to the environment of the country.

The study has been able to highlight and further bring to the fore factors that influence African foreign students' behavioral practices towards HIV and AIDS support programme. Barriers of foreign students' participation in the programme have been identified for action to be taken so as there be increase of foreign students' participation in the HIV and AIDS support programme. As a universal health goal of limiting the prevalence HIV and AIDS, it is very important to understand aspects of behaviour from African foreign students to harness all opportunity to curb the spread of the epidemic.

The Health Belief Model was adopted in this study to explain the factors that influence African foreign students' behavioural practices in response to HIV and AIDS Support programme at UKZN. The health belief model is also based on the premise that individuals who perceive themselves to be at risk of contracting some form of disease perceives the disease as severe and thereby have the idea that changing their behavior will better their situation and will adopt preventive behavior (Kirscht, 1974). Foreign students behavioral change has been identified in the study, most students were warned of the prevalence of HIV and AIDS in the country and they had to change their behavior such as using condom, avoiding multiple sex partners and also avoiding sharing of sharp objects so as not to contract the disease.

This study investigated African foreign student's behavioral practices towards UKZN HIV and AIDS support programme. The participants of the study consisted both male and female students from different colleges in UKZN's Howard College Campus. Majority of the students in this study are in the age group 26-30 years.

The study revealed that foreign students' knowledge about the UKZN HIV and AIDS Support Programme is limited to HIV and AIDS testing and few students know about other activities of the programme. Students hear of the existence of the programme from friends and even see members of the programme around campus wearing t-shirt written the programme tag. There are also students who do not know that there is HIV and AIDS Support Programme on campus. The programme does not create more awareness of its existence for all students to know about and participate in its activities.

From the study, it was found out that The UKZN HIV and AIDS support programme has immediate and long-term benefits among foreign students. Students get to check their HIV and AIDS status and get important information how to manage the disease; those who are not infected with HIV get to know of ways to protect themselves and prevent the spread of the disease; with the spread of awareness about the disease, there is reduction of stigmatization towards victims of HIV and AIDS. The programme has created more awareness of the disease

and thus helping foreign students survive in the society characterized with high prevalence of HIV and AIDS.

The study also found out that there are several barriers that hinder African foreign students from joining the HIV and AIDS support programme, some of the identified barriers include: lack of enough publicity about the programme, foreign students home country's perception of HIV and AIDS and Fear of hidden costs related to programme activities. When these things are taken into the consideration, it will increase UKZN African foreign students' participation in the programme.

The programme has shaped and changed students' behavior on campus so as to prevent being infected by HIV; this was done through the campaigns initiated by the programme. The programme needs to derive measures and mechanisms to provide educative information that will enhance students' self-efficacy and help them in making decisions concerning their health. Some of the behavioral practices adopted by UKZN African foreign students in the fight against HIV and AIDS include; engaging in the use of condom, avoiding multiple sexual partners and also avoid sharing sharp objects in order to protect themselves from getting infected with HIV. Some students even opt for abstinence so as to stay safe.

6.2. Recommendation

Based on the findings of this study, African foreign students and the researcher propose the implementation of the following recommendations in order to reduce the spread of HIV and AIDS. Firstly, there should be more publicity about the programme in the university to make it known to all students: Students should be told of the programme' activities and benefits so that many will have concrete information and be able to participate in the HIV and AIDS support programme

It is also important that the programme collaborate with the International students' office in the university to enlighten foreign students of the existence of the UKZN HIV and AIDS support programme. Foreign students are to be told of the health dynamics and prevalence of HIV and AIDS in the country and in campus during orientation session as they enter the university. The same platform should also be used to tell them of the existence of HIV and AIDS support programme in campus.

Globalisation has created a more integrated society and as such social media has becomes of the fastest growing avenues to reach people. As such, the use of social media should be exploited to create awareness about the programme and HIV and AIDS so that foreign students can benefit and maximize necessary support of international students in UKZN.

Students in general and international students are always not financially keen to investing in any other project outside their school fees and upkeep requirement. In this light, at orientation, international students should be made aware, participating in the program does not have any financial implication. One of the concerns of African foreign students not participating in the HIV and AIDS support programme was the fear of hidden costs in the programme' activities. The programme should state clearly which activities are to be paid for and which are free. This programme is very important considering the prevalence of HIV and AIDS in South Africa, hence, fliers about the programme should also be included in foreign students' admission letters so as to make all foreign students to be aware that such programme exist even before stepping in the university.

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Appendix 1

Ethical Approval Letter



18 December 2017

Mr Isaiah Phillip Smith (214579864)
School of Applied Human
Sciences — CCMS Howard
College Campus

Dear Mr Smith,

Protocol reference number: HSS/2117/017M

Project Title: African foreign student's behavioral practices towards University of KwaZulu-Natal HIV and AIDS Support Programme

Full Approval —

Expedited Application In response to your application received 01 November 2017, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol has been granted FULL APPROVAL.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment /modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years,

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

Bando

Dr Shenuka Singh (Chair)

/ms

Cc Supervisors: Dr Given
Shigaya Mutinta Cc
Academic Leader
Research: Dr Jean Steyn
Cc School Administrator: Ms Ayanada Ntuli

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Appendix 2

Informed Consent Document

Dear Participant,

My name is Isaiah Phillip Smith (214579864). I am a master's candidate studying at the University of KwaZulu-Natal, Howard College Campus. The title of my research is African foreign students' behavioural practice towards the University of KwaZulu-Natal HIV and AIDS support programme

The aim of the research is to find out the perception that hinder and influence the participation of African foreign students' in HIV/AIDS support unit program in the institution. I am interested in your response and you will share your experiences and opinions on the subject matter.

Please note that:

- The information that you provide will use for scholarly research only.
- Your participation is voluntary. You have a choice to participate, not to participate or stop participating in the research. You will not penalize for taking such an action.
- Your views in this interview will present anonymously. Neither your name nor identity will not disclose in any form in the research.
- The interview will take about 20-25minutes
- If you agree to participate please sign the declaration attached to this statement (a separate sheet will be provided for signatures)

You may contact me at school of Applied Human Sciences, University of KwaZulu-Natal, Howard Campus, Durban. Email: smithphillip80@gmail.com

Cell: 0834132341.

My supervisor is Dr. Lauren Dyll who is located in the school of Applied Human Sciences, Howard College Campus, University of KwaZulu-Natal. Contact details: dyll@ukzn.ac.za.
Room G011

The Humanities and Social Sciences Research Ethics Committee contact details are as follows:
Ms. Phumelela Ximba, University of KwaZulu-Natal, and Research Office. Email: Ximbap@ukzn.ac.za, phone contact +27312603587.

Thank you for your research contribution

DECLARATION

I..... (Full names of participant) hereby confirm that i understand the contents of the documents and the nature of the research project, and I consent to the participating in the research project

I understand that I am at liberty to withdraw from the project at any time, should I so desire. I understand the intention of the research. I hereby agree to participate.

SIGNATURE OF PARTICIPANT

DATE

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