A COMPARATIVESTUDY ON HIGH-RISK SEXUAL BEHAVIOUR OF MALE STUDENT ELITE ATHLETES, MALE STUDENT NON-ATHLETES, AND MALE STUDENT RECREATIONAL SPORT PARTICIPANTS AT THE UNIVERSITY OF BOTSWANA

BY

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UNIVERSITY of the
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A thesis submitted in partial fulfilment of the requirements for the degree of Magister Sport, Recreation and Exercise Science in the Department Of Sport, Recreation and Exercise Science

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A COMPARATIVE STUDY ON HIGH-RISK SEXUAL BEHAVIOUR OF MALE STUDENT ELITE ATHLETES, MALE STUDENT NON-ATHLETES, AND MALE STUDENT RECREATIONAL SPORT PARTICIPANTS AT THE UNIVERSITY OF BOTSWANA

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KEYWORDS

University of Botswana

HIV/AIDS

High-risk sexual behaviour

Athletes

Elite Athletes

Non-athletes

Recreational Sport Participants

Sexuality

Promiscuity

Sex

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ABSTRACT

Title of the Thesis:

A comparative study on high-risk sexual behaviour of male student elite athletes, male student non-athletes, and male student recreational sports participants at the University of Botswana

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This study aims to compare the sexual behaviour patterns of male elite student athletes, male student recreational sports (RSP) and male student non-athletes at the University of Botswana in relation to high-risk sexual behaviours. High-risk behaviors in the domain of sexual behaviour were investigated in relation to the determinants of risk behaviour such as multiple partnerships, condom use, and history of sexually transmitted infections, the partners past sex life, current sexual life, casual sexual partners and age of first sexual experience. The purpose was to establish which group of the male students is more at risk of HIV infection due to its engagement in high-risk sexual behaviour. Data was collected by means of an anonymous self-report questionnaire. Participants included 235 male students (94 non-athletes, 92 athletes and 50 elite athletes) at the University of Botswana. Self-report questionnaires were administered, which included items from the 2005 Youth Risk Surveillance System (YRBSS), Student Life Style questionnaire, as well as items from a questionnaire assessing knowledge and practice of safe sex amongst Rhodes University students (Simpson, 1996).

Data from similar investigations are reviewed and results thereof are placed into context by reviewing three theories utilized, namely: Control Theory, Cultural Theory and Exchange Theory. These theoretical understandings inform the possible explanations provided in the outcomes of this study.

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The Statistical Package for Social Sciences (SPSS) and t-tests were used to obtain data analyses that included descriptive statistics and cross-tabulation (with specific reference to chi-square analysis), and all procedures were performed at 0.05 level of significance with a 95% confidence interval.

No statistical significant difference was found between male student non-athletes and male student athletes in most of the determinants of high-risk sexual behaviour when using cross-tabulations and chi-square analyses, but a definite relationship was found between multiple partnerships, and when using t-test analysis. A significant association between age of first sexual debut and athletic participation was found. Nonetheless, some high-risk sexual behaviour were established among athletes, as findings suggest that high-risk sexual behaviours such as multiple partnerships and age of first sexual debut were high among athletes (both RSP and Elite) as compared to non-athletes. Overall, male athletes showed higher engagement in most of the determinants of high-risk sexual behaviour examined than non-athletes. Another main finding was that the majority of students (athletes and non-athletes), reported inconsistent condom use.

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The results and findings confirm previous research on high-risk sexual behaviour among students. The results of this study are discussed in relation to implications for health education, and recommendations for future research are suggested.

March 2009.

DECLARATION

I declare that *A comparative study on high-risk sexual behaviour of male student elite athletes, male student non-athletes, and male student recreational sports participants at the University of Botswana* is my own work, that it has not been submitted previously for any degree or any other university, and that all the sources have used or quoted have been indicated and acknowledged as complete references.

Molly Kenaope Sebele March 2009

Signed……

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I could have not written this thesis without God's help and probably would not have written it without my family's relentless "encouragement". Thanks to my family: my late little sister Kukie, may her soul rest in peace, my late Grandma, my uncle Gabriel Mabengano and his family for being part of the foundation of my education. Thanks to my family; my mother, my two boys Wantlha and Katlego and my pumpkins Tankiso, Tshepiso, Dikeletso and Sebaga for their unwavering support and for being patient with me during my stay in South Africa. A huge thank you also goes to University of Botswana staff and students for their support during data collection.

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Finally, to myself: for never giving up regardless all the challenges. I knew in my heart that God led me into the fire, and was with Him in the fire, He was holding my hand. When I came out of the fire, I didn't look like I am from there, I had no burns. Our God is an awesome God. He reigns from heaven above, with Love, Power and Wisdom. "His light shines brightest in the darkest".

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DEFINITION OF KEY WORDS

Szuchman and Muscarrella (2000) suggest that researchers need to be clear regarding the definitions used in their studies. They also need to acknowledge the risk that others, especially in the same field of research, may use different definitions. Therefore, in order to form a clear understanding of the focus of this study, the following terms are defined as follows:

Athlete: A person who participates in any kind of sporting activity.

Recreational sport participant (RSP): A person who participates in any kind of sporting activity for health and/or leisure reasons.

Elite athlete: The best athletes in a given sporting discipline who represents his University, region or country, or who is a professional sports person.

Non-athlete: A person who has never participated in any sporting activity, or is not participating in any sporting activity at the time the questionnaire of this study was administered.

High-Risk Sexual Behaviour (HRSB): Within this study, it can be defined as sexual behaviour that results in negative consequences. These behaviours could include: self-reports of early and unprotected sexual; encounters with multiple sex partners; sex with strangers and sharing drug needles, which can result in increased chances of contracting sexually transmitted diseases (including HIV).

Primary partner: Some one to whom one feels committed to above anyone else.

Sexuality: Within this study, sexuality refers to erotic arousal, which generally leads to genital responses.

Promiscuity: Is the practice of making relatively unselective choices. It is commonly applied to sexual behaviour where it means sex that is not in the framework of a steady relationship or that occurs in multiple, simultaneous sexual relationships.

Sex: For the purpose of this study, sex refers to the physical activity between two people involving the use of genitals ("having sex")

ABREVIATIONS

AIDS: Acquired Immuno-deficiency syndrome

BNSC: Botswana National Sports Council

CDC: Centres for Disease Control

HBM: Health Belief Model

HIV: Human Immuno-deficiency Virus

MLHA: Ministry of Labour and Home Affairs

MHEC: Ministry of Health Ethics Committee

MTCT: Mother To Child Transmission

MTP II: Medium Term Plan II

NACA: National AIDS Coordinating Agency

RSP: Recreational Sports Participants

SB: Sexual Behavior

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SHAPE: School Health And Population Education

SIAPA: Social Impact Assessment and Policy Analysis

STI: Sexually Transmitted Infections

TRA: Theory of Reasoned Action

TPB: Theory of planned Behaviour

UB IRB: University of Botswana Institutional Review Board

YRBSS: Youth Risk Behaviour Surveillance Survey

CHAPTER 1

1.0 Introduction

This chapter presents the background to, and rationale for, the study, a statement of the problem and the aim and significance of the study. The objectives of the study and the research hypotheses that were tested are also presented. A brief discussion of the methodologies used in conducting research into sexual behaviours and AIDS are also presented in this chapter. The chapter also presents a description of the geographical area of the research, and it concludes with a concise summary and layout of the rest of the thesis.

1.1 Background to the Study

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Many studies have shown that unprotected sex plays a key role in spreading the Acquired Immune Deficiency Syndrome (AIDS) epidemic. Sexuality plays a key role in the transmission of the Human Immunodeficiency Virus (HIV), the virus that causes AIDS. Risky sexual behaviour is proportionate to HIV transmission (Ross, 1995; Smith, 1989). The spread of HIV/AIDS around the world implies that there is an urgent need for data on human sexual behaviour, especially among young people (Chitamun & Finchilescu, 2003; Peretti-Watel, Guagliardo & Velger, 2004; Pettifor, Rees, Hlongwa-Madikizela, MacPhail, UNAIDS, 2004). Despite only having been discovered only in the early 1980s, AIDS has developed rapidly into an epidemic that has since caused the death of millions of people of all ages and ethnicities (Van Dyk, 2001). HIV/AIDS affects millions of people all over the world, especially in sub-Saharan Africa. In an attempt to understand its full impact on the human population, it is necessary to consider the current prevalence statistics. More than 20 million people have died of AIDS since the first documented case in 1981 (UNAIDS, 2004). Sub-Saharan Africa comprises roughly 10% of the world's population, yet it is home to more than 60% of the

world's HIV-positive population (UNAIDS, 2004; Van Dyk, 2001). Unsafe sexual practices remain the most prevalent mode of HIV transmission in the region.

Age also seems to be a major contributory factor in the spread of HIV (UNAIDS, 2004). Current statistics show that 15 to 24 year olds are presently the age group most susceptible to HIV, both nationally and internationally (Thom, 2003; UNAIDS, 2004). A clear link exists between HIV and the risky behaviour of the youth, and it is universally accepted that such behaviour puts them at risk of adverse physical, mental, and socio-economic outcomes (Kaaya, Flisher, Mbwambo, Schaalma, Aaron & Klepp, 2002). Demographically, youths constitute the largest part of the population in developing countries and they are the most vulnerable high-risk group regarding HIV infection (UNAIDS, 2004). Student athletes have been identified as a distinct segment within the high-risk group of young people. One of the reasons for this might be that the status afforded to athletes by society may exacerbate the potentially harmful influence of sport in shaping cultural attitudes that contribute to athlete's risky behaviour (Benedict, 1998; Adams, Fetro, Hammig, Kittleson, Welshimer, Leitner & Anderson, 2002; Center for Disease Control and Prevention, 1996).

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Botswana, unfortunately, remains the worst affected country with the highest prevalence rates worldwide (UNAIDS, 2004). Botswana was one of the world's poorest countries at independence in 1966 and has since made great strides in the area of economic development (Chappell, 2004; Oneworld UK-news, 2006). It is now classified in the middle-income bracket with most of its wealth coming from diamond mining. The country has invested most of its wealth in areas of education, health care and transportation networks (Chappell, 2004). The gains that have been made in the past forty years are now under serious threat because of the country's high rate of HIV infection. An estimated 37% of the country's population between the ages of 15 and 49 are infected with HIV, which represents over one in three people in this age group. The epidemic impacts on all aspects of society, diminishing the workforce, orphaning children and overwhelming the health care system (Oneworld UK-news, 2006). Crucially, the largest HIV high-risk group in Botswana (aged 15 – 24), is also

the country's most economically active age group. This means productivity is compromised due to loss of time from work as a result of illness. In this regard HIV/AIDS is not only a health and social issue, but also a condition with ominous economic implications.

In recognition of the far-reaching impact of HIV, the Botswana government has initiated a multicultural approach that is aimed at identifying the effects of the virus in different areas of life and society. The country, in collaboration with some international donors, put in place free voluntary testing and counseling (VCT) centers, programs to prevent mother–to-child transmission (MTCT), and national anti-retroviral (ARV) programs that provide access to life-prolonging medication to people living with HIV (Population Report, 2006; Avert.org, 2006; Oneworld UK-news, 2006).

Furthermore, since independence in 1966, Botswana has made great strides in the administration and organization of sports. Botswana is one of the many African countries that loves and values sports. Events across the country, and media coverage on sports, provide a clue to the country's sporting culture as well as to its relation to nation building. The objective of the country's Department of Sports and Recreation is to create an environment in which all the people of Botswana, whether rural or urban, able-bodied or disabled, can participate in sports. This means that those who have the potential to excel will be provided with the facilities and an enabling environment to reach their full potential (Chappell, 2004). This approach has the added advantage of promoting active living behaviours through sports and recreation. A look at Botswana's expenditure on sports also reveals the value of sports to the nation. The Botswana National Sports Council (BNSC) receives an annual grant from the government through the Ministry of Labor and Home Affairs (MLHA), which is then disbursed to operate various national sporting associations affiliated to the BNSC (Toriola, 2001). In addition, the increase in the grant and the construction of sporting facilities in various villages throughout the country is testimony to the government's commitment to sport (Pheto, 2003). Furthermore, one of the BNSC's

high-level priorities is to make a contribution towards the national HIV/AIDS awareness campaign by initiating a national AIDS awareness project every year. It is therefore vital at this time to focus on the health of young people, both athletes and non-athletes, with regard to their risky sexual behaviour which may result in their being infected with HIV.

The spread of HIV/AIDS among young people calls for urgent attention across all sections, particularly sporting fraternities. Many perceive sports as providing institutional settings in which young people grow physically and emotionally, and which enable them to forge positive values and behaviours (Swift, 1991). When famous sporting figures contract HIV, it attracts world-wide attention as it shows that athletes are not immune to this deadly virus. The HIV/AIDS epidemic constitutes the greatest threat to life, dignity and the enjoyment of human rights in the world of today. Generally, the epidemic is making a multicultural impact worldwide, with sport being no exception. In countries with a high prevalence rate, the impact is more severe among the youth, the same group of people that is highly involved in sports (Population Report, 2006).

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However, studies have shown that not all athletes are equally involved in high-risk behaviours, with those performing at the highest level (professional/elite athletes) being the most likely to indulge in this kind of behaviour. It is alleged that this behaviour among athletes is worsened by an environment that provides constant opportunities for sex, popularity with women, and a unique sense of entitlement in the young athletes, fostered by coaches and managers. Thus the world of high performance sport, in particular, is a probable arena for the development of certain health risk behaviours.

The above scenario clearly reflects a discrepancy between perception and reality and this study attempts to determine the reality of high-risk sexual behaviours among students, especially young athletes. In doing so, this study may contribute to the body of knowledge in the field of HIV/AIDS prevention among young people.

While comprehensive sexuality education among students seems only a distant possibility in Botswana, the University of Botswana is compelled to accept a high profile role in intervening in sexuality related problems such as sexual risk behaviors among its students. In spite of the country's substantial investment in HIV/AIDS prevention strategies, Botswana has one of the most highly infected populations in the world (Brigaldino, 2002). It is argued that one way of addressing this situation lies in understanding the sexual behaviours of youth, the factors that contribute to their engagement in risky sexual behaviour, and the characteristics of the youth which may lead them to engage in risky behaviours.

University students have been identified as a distinct group of youth. Dowsett (1999:223), for instance, argues that: '…we need three sources of research knowledge to help us produce effective prevention: epidemiology; social-behavioural monitoring; and cultural educational research'. This study addresses the second aspect, viz. social-behavioural monitoring. It is distressing to report that, though the primary mode of HIV/AIDS transmission is unprotected sexual intercourse, there has been no research in Botswana that systematically examines the sexual risk behaviours of male university students, and the sexual health issues that they encounter in the context of their institutional subculture. Most of the studies, if not all, focusing on male athletes' (professional and university/collegiate) sexual risk behaviour, are studies from the United States and elsewhere.

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The University of Botswana is the home of young and vibrant athletes, who together with other young people in the country have spurred on the growth of sport in the country. Therefore, for the Botswana government and the Botswana National Sports Council to focus on educating athletes on HIV/AIDS and its spread, yet neglecting their sexual behaviour, is like fighting a losing battle. It is expected that this research will contribute to the discourse on the identification of specific high-risk groups who can be targeted for HIV education on changing risk behaviour. The study will also provide more information to the HIV/AIDS prevention programs on the critical need to focus on young people, especially athletes and other celebrity groups. Furthermore,

it hopes to prompt sports organizations to deliberately develop programs aimed at making sports personalities take personal responsibility regarding their sexuality and HIV/AIDS prevention. The risky sexual practices of male students will be identified and, consequently, the educational needs of the university students will be understood. Furthermore, the survey will assist program planners of HIV/AIDS intervention campaigns, in directing their training towards gaps identified by the study. It will also help the university's curriculum designers to understand which aspects of HIV/AIDS need to be emphasized in the syllabus and will help the School Health And Population Education (SHAPE) to ascertain what factors may be driving the pandemic in this group. The results of this study can also inform future comparative research studies.

Although high-risk behaviour patterns such as the number of sexual partners, observations of unsafe sex practices, and drug abuse have not been examined in depth among student male athletes, some studies and media reports indicate that prominent athletes are regularly involved in high-risk behaviours such as drug and alcohol abuse, sexual promiscuity, sex scandals and rape (Miller, Sabo, Farrell, Barnes & Melnick 1999; Swift, 1998). Consequently they have a higher risk of contracting sexually transmitted diseases, including HIV/AIDS (Benedict, 1998; Keller, 2004; Moulton, Gallien & Roach, 2000).

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In the United States of America, events that illustrate the impact of HIV/AIDS in sport can be traced back to the 1990s, when a number of world-class sport personalities tested HIV-positive. The case of professional basketball player Earvin "Magic" Johnson in November 1991 marked the first time that considerable media attention was focused on HIV/AIDS and sports (CDC, 1996). After testing HIV-positive, Johnson stayed away from sports for about four years. Magic Johnson was the first high-profile athlete to be forced out of competitive sports due to contraction of a Sexual Transmitted Infection (STI), and he was followed by boxer Tommy Morrison (Benedict, 1997). Other famous sports personalities such as former tennis star Arthur Ashe (who died in 1992), former

Olympic diver Greg Louganis (who died in 1995), Major League baseball player Glenn Burke, Hockey star Bill Goldsworthy (who died in 1988), and Olympic ice dance bronze medalist Rob McCall, professional figure skater Nicole Lesh, are amongst other successful sportspersons who also tested positive for HIV.

Despite the fact that numerous sports personalities have tested positive, athletes continue to engage in risky unprotected sexual activities with random partners, and are also involved in crimes including rape (Benedict, 1998). Not only was the news of the HIV-positive status of these individuals shocking to the sports fraternity, but it also led to an increased fear of HIV transmission on the playing field. From a practical standpoint, athletic competition does not pose a risk of HIV infection (Benedict, 1998). Benedict argues that although numerous professional athletes have been diagnosed with HIV/AIDS, including those who died from the disease, there has yet to be a verifiable case of athletes contracting HIV through the exchange of bodily fluids during competition. Theoretically, an infected athlete can contaminate a lesion, wound or mucous membrane of another athlete (Benedict, 1997). However, later evidence has revealed that the chances of contracting HIV infection on the playing field are minimal (Swift, 1991; Benedict, 1997; CDC, 2000).

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Swift (1991) asserts that the mandatory testing of athletes might fail to reduce the risk of HIV infection in sports, because the risk of getting infected is more closely associated with behaviours external to sports competitions. Generally, the primary risks for athletes of contracting HIV infection are the same as those faced by non-athletes, which include unprotected sex and sharing needles, amongst other things (CDC, 2000).

Nonetheless, it is generally accepted that there is a possibility of low risk transmission during other sporting events such as boxing. In this event, when a healthy athlete competes against an opponent who is infected, there are chances of him coming into contact with exposed skin lesions or mucus membranes from his opponent, and, as a result of this, testing has become a pre-requisite. The international

Boxing Federation also requires fighters to present evidence that they are not HIV-infected before title bouts, although it is not a requirement for participation in the sport. The issue of whether or not athletes in other professional sporting disciplines should undergo mandatory testing remains debatable. Currently, in most professional and collegiate athletic organizations, testing is simply encouraged. Benedict (1997) argues that mandatory HIV/AIDS testing of athletes misses the mark, because the testing is predicated on protecting athletes from a potentially infected competitor. Benedict asserted that the partners in the athletes' lives, such as wives, girlfriends, and indiscriminate sexual partners are the ones who face the risk of HIV infection.

Several studies have demonstrated that athletes are involved more often than non - athletes in incidents associated with other forms of risky behaviour, such as alcohol abuse, reckless driving, high-risk recreational activities, having more sexual partners, and contracting a greater number of sexually transmitted diseases. These studies came to the conclusion that athletes surpass non-athletes when it comes to risk behaviours. Non-athletes are said to be less involved in risk behaviours compared to athletes (Nattiv & Puffer, 1991; Pereti-Watel *et al.*, 2004; Savage & Hilcomb, 1999 and Farue *et al.*, 2004).

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The indiscriminate sexual relations many athletes enter into put them at greater risk of contracting HIV and other venereal diseases such as gonorrhea, syphilis Chlamydia, genital herpes and hepatitis. Benedict (1997) believes that what worsens the potential for infection is an aversion to condoms, not uncommon within the ranks of athletes and those with a multiplicity of sex partners. Frequent casual sex, unlimited partners, failure to use condoms, and participation in group sex are risk factors, as they increase the risk and possibility of passing on STDs. Benedict (ibid.) asserts that it is ironic that even in the years between Magic Johnson's announcement in 1992 and Tommy Morrison's announcement in 1996, athletes' cavalier attitudes toward high-risk sex have not changed, but have become more manifested in many cases.

Gupta (2000) concludes that the most recent statistics show that heterosexual transmission of HIV remains the most common mode of transmission globally. High-risk sexual behaviour has been highlighted as a serious problem among students (Barone *et al.*, 1996; Meekers & Ahmed, 2000). With the evidence of the statistics of HIV/AIDS infection among young people, and research on student involvement in risky sexual behaviour such as promiscuity, rape and sexual aggression especially among collegiate and professional athletes, it is urgent to understand the dynamics of sexual behaviour of students, both non-athletes and athletes. This research aims to explore these notions, and will compare the sexual behaviour patterns of elite male student athletes, male student recreational sport participants and male student non-athletes at the University of Botswana.

1.2 Rationale for the Study

While efforts are being made to educate students at the University of Botswana with regards to HIV/AIDS through workshops and other intervention programs, many students are not adopting safe sexual practices that could prevent HIV infection. Students are prospective leaders of their communities, and their universities should concentrate on HIV/AIDS education. Students at university are at a stage where most of them lack parental monitoring**.** Therefore, many of them become disoriented in a throng of peers and the larger society. University students are vulnerable to HIV infection because they are living away from home, which may expose them to conditions that favour HIV transmission (Nuwkoji & Ajuwon, 2004).

The research population of this study consists of mainly males. Thus far, according to Booth (2004), intervention programs have mainly focused on females as the group most vulnerable to HIV infection. The developmental stage of university students, coupled with the liberal sexual activity at universities, also contributes to their vulnerability. Therefore, the students must be equipped with accurate information. Equipping them while at university will conserve time and money for training them when they are deployed to different sectors. At present, insufficient research exists

on the risky sexual behaviour patterns of male student athletes and male student non-athletes, hence the need for this study.

1.3 The Research Problem

The purpose of this study is to compare sexual behaviour patterns and determine if there are differences in the sexual behaviour of male students that could put them at risk of HIV/AIDS infection at the University of Botswana. The above literature explains the importance of targeting male students.

1.4 Significance of the Study

This study seeks to provide strategies for making the university as an institution, including its sporting environments, safer in terms of HIV transmission, and to add to the positive reputation of sports and the university in general. Furthermore the study seeks to determine if a relationship exists between participation in sport and high-risk sexual behaviour patterns, with the view to validating the existing perceptions that athletes are more health conscious than their non-athlete counterparts with regard to their involvement in high-risk behaviors such as sexual promiscuity, sex scandals and rape.

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1.5 Aim of the Study

This study depicts the unsafe sexual practices of young male students at the University of Botswana, as unsafe sexual practices pose a major health problem throughout the world. This study was designed to establish whether there are any differences in the sexual behaviour patterns between elite male student athletes, male student recreational sport participants, and male student non-athletes. The researcher thus aims to address one of the theories that athletes are more health conscious than their non-athletic counterparts. By focusing on young adults' sexuality, the study problematises the consequences of unsafe sex practices that put them at risk of HIV/AIDS infection.

1.6 Objectives of the Study

The objectives of the study are to:

1.6.1 Compare sexual behaviour patterns among male student athletes and male student non-athletes at the University of Botswana;

1.6.2 Establish whether elite male student athletes engage in high-risk behaviour patterns compared to male student non-athletes;

1.6.3 Establish whether male student recreational sports participants (RSP) engage in high-risk sexual behaviour patterns compared to male student non-athletes; and

1.6.4 Determine if there is a relationship between level of participation in sports and high-risk sexual behaviour.

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1.7 Research Hypotheses

In seeking answers to the quantitative research questions, the following hypotheses were formulated and tested.

H_1: There is no significant difference in the high-risk sexual behaviour of male students who do not participate in sports and those who do.

H_2: There is no significant difference between elite male student athletes and male student non-athletes in relation to high-risk sexual behavior.

H_3: No significant difference exists between elite male student athletes and male student recreational sports participants (RSP) with regards to high-risk sexual behaviour.

H_4: There is no significant difference between male student recreational sports participants and male student non-athletes with regards to high-risk sexual behaviour.

1.8 Methodology used in Sexual Behaviour and AIDS Research

In examining possible research methods, the main concern was to choose a methodology that would provide a framework within which the research hypotheses could be meaningfully addressed. This study therefore, adopted the quantitative research approach. Academic investigation into sexual behaviour has employed a variety of approaches, including the medical and psychiatric investigation of sexual disorders, anthropological investigations and research surveys based largely on volunteer samples (Fenton *et al.* 2001). Fenton *et al.* (ibid.) state that more recent studies, driven largely by the public health response to HIV/AIDS, have focused on large-scale probability sample survey research. These authors also assert that the key areas of inquiry have shifted towards describing population patterns of risk behaviours in STI/HIV transmission, understanding how epidemics of STIs are generated and informing disease control strategies. Most of the studies on sexual behaviour and HIV/AIDS generally fall into four main groups: general population sampling techniques, studies on population subgroups, partner and network studies, as well as ethnographic and qualitative studies (Fenton *et al.* 2001).

The sexual experience of university students has been subjected to much research over decades, and methodological concerns have been based on the accuracy of information and on the appropriateness of the methods (Andre *et al.* 1989, cited in Nicholas, 1993). Methodological concerns highlight the types of samples studied and the representativeness of such samples. Landmark studies have been questioned because of their reliance on volunteers (Kinsey, Pomeroy, & Martin, 1948; Kinsey, Pomeroy, Martin & Gebhard, 1948). Previous research predominantly focused largely on white college students (Delamater, 1974). The presumed sensitivity of the topic of sexuality raises the issue of the relative value of the questionnaire versus interview

methods (Nicholas, 1993). Often the sex of the interviewer influences the direction of bias, and this has come under the scrutiny of researchers (Delamater, 1974). Kinsey *et al.* (1948) used men to interview all respondents to standardize the interviewer effect. Delamater (1974) speculated that males might be more truthful with male interviewers and female less truthful with female interviewers because women may fear the female interviewer's disapproval. Johnson and Delamater (1976) found that self-administered questionnaires, as opposed to face-to-face interviews, maximized participants' willingness to report accurately.

Against the above background, the present study was conducted using quantitative approaches. This is essential when studying a sensitive topic such as high-risk sexual behaviour.

1.9 The Geographical Area and the Research Population

This analytical study focuses on male students at the main campus of the University of Botswana. The main campus is situated in Gaborone, the capital city of Botswana. The campus occupies 115 hectares and currently consists of 3465 classrooms, 3053 lecture rooms, 2625 libraries, offices and hostel accommodation for 4319 students (University of Botswana Fact Book, 2006). During the period when data for this present study was collected (2005/2006) 15 710 students were enrolled, with 80% full time, 17% part time, and 3% distance learners. Of the total 15, 710 students, 535 were female and 47% male. Ninety-five percent were Botswana citizens and 5% international students. Currently the preliminary results of the 2001 population census estimates that Botswana has a population of 1.68 million. The annual population growth during the 1990's was 2.4% compared to 3.5% during the eighties, a decline associated with more effective family planning and the spread of AIDS (Bojanala, (2005). According to a United Nations Report (2001), the incidence of HIV/AIDS in Botswana is high amongst those aged 15-49 years, which represent 38.8% of the total population.

1.10 Summary of this Chapter

This chapter provided the background to the study. It outlined how risky lifestyles and unsafe sexual practices pose a major health concern throughout most parts of the world, and in Botswana in particular. It further highlighted the strong relationship between these practices and the alarming spread of HIV. It is assumed that the reduction in risky/unsafe sex will reduce the current HIV/AIDS pandemic prevailing in Botswana. Increasing the knowledge base of young peoples' current high-risk sexual behaviour will inform behavioural responses to the spread and threat of HIV/AIDS. The findings will be useful in identifying a particular high-risk group, and therefore the focus of HIV/AIDS prevention, education, and intervention measures could be aimed at long-term behaviour modification for all groups.

1.11 Layout of the other chapters

CHAPTER TWO**:**

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In this chapter the key concepts pertaining to high-risk sexual behaviour of male students and the theoretical framework that guided this study will be discussed. This is followed by a literature review beginning with an overview of studies about the sexual behaviours of young people. The challenges faced by athletes are also examined.

CHAPTER THREE:

This chapter presents the research methodology used for data collection and analysis. The study adopted the quantitative research approach. The survey approach, as the methodology of choice for the present study, is introduced, defended and critiqued. Procedures for data collection, ethical issues relating to this study, the limitations of survey research and a discussion on quality and rigor in the study are presented.

CHAPTER FOUR:

In this chapter, the research findings of the risky sexual behaviour patterns of the male student athletes and non-athletes are presented and discussed, along with the results of the statistical analysis, including descriptive statistics, chi-squares, cross-tabulations, frequencies and t-tests.

CHAPTER FIVE:

In this final chapter, a summary of the findings and implications of the study are presented, together with a reflection on the entire study. Recommendations and implications for future research are suggested. Comments are made regarding the limitations of the current study in order to inform possible future studies.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

In this chapter, the relevant literature regarding pertinent issues under investigation in this study will be presented. Firstly, key theoretical perspectives that have been used on the study of risky sexual behaviour among young people and how they inform this study are outlined. A review of the previous literature follows, beginning with an overview of the research studies about risky sexual behavior.

2.1 Theoretical Framework

Research has shown that theoretical perspectives on AIDS risk-taking behaviour have been neglected in much of the social science research (Vanlandingham, Suprasert, Grandjean, & Sittitrai, 1995). Health behaviour theories provide program plans and interventions with an understanding of the steps that commonly lead individuals to engage in certain health related behaviours and look into the factors that influence these behaviours. They also guide health promotion research and inform program development implementation (Jemmott, Jemmot & Hutchinson, 2001 and Kohler, Grimley, & Reynolds, 1999). According to Vanlandingham *et al.*, 1995, most of the published research on AIDS-related behaviours in the major public health sectors, social science, and AIDS journals is more descriptive than theoretical. This trend was also established in a study reviewing forty-seven articles on the sexual behaviour of school students in Sub-Saharan Africa, which was published between 1987 and 1999 (Kaaya, Mbwambo, Schaalma, Aaro, & Klepp, 2002) .

Furthermore, it was found that a theoretical framework within which sexual behaviour or behaviour change was understood, rarely guided the interpretation of the findings (Kaaya *et al.*, 2002). The argument is that measures of risky sexual practices are often simply cross-tabulated or regressed by a concoction of factors ranging from

age to socio-economic status; results are frequently presented as inventories of statistically significant associations (Vanlandingham *et al.*, 1995).

Historically, studies on risky sexual behaviuor have been influenced by cognitively based theories such as the health belief model, reasoned action and self-efficacy theories (Bandawe & Foster, 1996; Buunk, Bakker, Siero, van den Eijnden, & Yzer, 1998). These theories focus on the effects of situational factors, beliefs and cognitive aspects of risky behavior, on individual choice. They have succeeded in predicting risky sexual behavior. According to Vanlandingham *et al.* (1995), the few studies of AIDS risk-taking behaviour that do draw upon theoretical frameworks, tend to invoke selected features from two dominant models. The most popular is the Health Belief Model (HBM) developed by the U.S. public Health Service (Mullen, Hersy and Iverson, 1987), and the less well-known, but growing in popularity theory, the Theory of Reasoned Action (TRA), developed by Ajzen and Fishbein (1980) and its extension, the Theory of Planned Behaviour (TPB) (Ajzen, 1991). While these models effectively guide intervention programs that employ creditable strategies to raise self-esteem and to educate young people regarding sexuality and its consequences, they overlook the possibility that certain structured activities in the youth culture may reduce sexual activity. While a number of peer activities such as drug and alcohol use are associated with increased sexual activity, few researchers have explored the potential deterrent effect of routine extracurricular activity (Miller *et al.*, 1998).

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These models however, are behavior specific and do not explain the underlying global determinants of risk-taking behavior (Carvajal, Garner & Evans, 1998). Global determinants can probably account for why some individuals with high HIV/AIDS knowledge continue to engage in risky sexual behavior. To correct for the limitation of the individual-choice hypothesis, a contextual analysis has been proposed (Bajos & Marquet, 2000; MacPhail, 1998), emphasizing structural constraints to rational choice. According to this approach, risky sexual behavior must not be attributed to intrapsychic or personality factors. In spite of observations to the contrary (Sheeran,

Abraham, & Orbell, 1999: 120), personality dispositions have been found to be related to risk-taking behavior (Moore & Rosenthal, 1993), and warrant further investigation in the area of HIV/AIDS (Kalichman *et al.*, 1994).

Therefore, against the above background of the cognitive theories, in order to gain an understanding of sexual behavioural patterns of male athletes versus non-athletes, this present study draws upon three conceptual frameworks: Control Theory; Cultural Theory; and Exchange Theory. These frameworks have been shown to be of great value in understanding the unique effects of sports in relation to a wide range of health related behaviours and especially sexual behaviours in teenagers and young people. The gist of the matter is that researchers must understand the values important to a group of individuals and their interests, in order to fully understand the actions of its members (Blumer, 1970). Thus, one cannot study young people's sexual behaviours without first understanding the youth themselves.

2.1.1 Control Theory

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Some researchers have employed control theory to explain adolescent sexual behaviour, though none have chosen to incorporate athletic participation in their analysis. The general belief is that young people with substantial amounts of unstructured and unsupervised time are more likely to engage in risky behaviours than those who are constructively engaged (Zill *et al.*, 1995). It is argued that the biggest opportunity for delinquency and presumably young people's sexual experimentation occurs during the absence of parents, (e.g. in the afternoon after school closes and before parents return home from work) (Sabo & Melnick, 1996). Participation in school-sponsored sport commonly fills that time slot with regularly scheduled activities. This may mean that young people who participate in sports may have fewer opportunities to be delinquent because their time is more structured than that of other young people.

Control theory suggests that involvement (devotion of time and energy to conventionally acceptable activities) is only one aspect that could keep young people away from delinquency. Young athletes' affective attachment to coaches and teammates may also help to suppress deviance. It is alleged that student athletes may have more incentive not to be delinquent, since they have access to highly valued reward structures through sports and thus, they would not lose these incentives by being delinquent. As a result, athletes may avoid behaviours that they see as potentially threatening to their continued participation, ability to compete, or the possibility of winning athletic scholarships and playing at higher levels. Athletes presumably also experience a stronger connection to a sports ethic that emphasizes fair play, rule conformity, and self–discipline.

Control theory yields several hypotheses relevant to the present study. Athletic participation should be associated with lower frequency of sexual intercourse, fewer sex partners, and a later age of onset of sexual activity, as compared to non-sports participants.

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2.1.2 Cultural Theory

A variety of recent works have explained the connection of athletic participation, gender, and sexuality, from the perspectives of critical sociology, culture, and gender theory. Sports are viewed as a cultural site for the construction of traditional or hegemonic masculinity (Messner & Sabo, 1990), serving as an institutional training ground for manhood. In fact, building on the work of Caron, Carter and Brightman (1985) and House worth, Peplow and Thirer (1989) on male college students, Andre and Holland (1995) found that younger athletes of both genders score higher on self-reported masculine traits than do their non-athlete counterparts, and male athletes displayed more traditional attitudes towards women than their male non-athlete counterparts.

It is argued that as adolescence progresses, sexual activity emerges as an extension of an already formed gender identity, thus, sexual behaviour becomes scripted in accordance with the wider cultural norms that pattern gender relations (Sabo & Messner, 1993). Cultural expectations attached to masculinity may encourage boys to initiate sex, to be sexually aggressive with girls, and to regard sexual conquest as a validation of male adequacy (Zilbergeld, 1993). Cultural expectations may also encourage male involvement with risky behaviours such as the use of alcohol and other substances, delinquency, and sexual promiscuity (Pleck, Sonenstein & Ku, 1993; Skolnick, 1993).

Unlike control theory, cultural framework suggests that athletic participation should increase sexual activity for male athletes, rather than male non-athletes, but female athletes should experience lower rates of sexual activity than female non-athletes. Furthermore, owing to the uniqueness of the sport subculture, other extracurricular activities – which are not coloured by cultural expectations regarding masculinity - should not show the same pattern of interactive effects. A common concept among subcultures is that of group conformity, which arises from those who blindly adhere to group policy as well as those who genuinely share the same goals of a group (Faules & Alexander, 1978). Faules and Alexander contend that group conformity serves to fulfill individuals' needs. According to this viewpoint, individuals will continue to act according to the group's expectations as long as the group survives to guide members and fulfill their needs.

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2.1.3 Exchange theory

Control theory and the cultural processes explanation both focus on the direct effects of sports on individual behaviour. However, it is argued that sexual behaviour inherently depends upon interaction with at least one other person. As such, sport may affect young people's sexual activity through its effects on the bargaining process that occurs in dating relationships. For example, Walter (1951) explicitly linked status with dating behaviour, suggesting that, following traditional scripts,

females exchange beauty, affection, and sex for status gains associated with dating prestigious males.

Participation in sports has consistently proven to be one way for young men to gain status; male athletes may therefore trade their status for affection and sexual favours, which male non-athletes do not have. There is some evidence to suggest that girls also gain status through participation in sports, possibly affecting the balance of exchange. Both Kane (1988) and Holland and Andre (1994) found that participation in sex appropriate sports (e.g. tennis, as opposed to basketball) increases status for high school girls. Though sports have remained primarily a male status enhancement vehicle, both female and male students are most likely to identify sports as a way for girls to gain prestige as well (Suitor & Reavis, 1995). Sabo, Melinick & Vanfossen (1989) found that a national probability sample of females and males derived significantly popularity gains from athletic participation.

Within the conceptual framework of exchange theory, it is speculated that the popularity gains that both females and males derive from high school athletic participation influence their sexual behaviour (Miller *et al.,* 1998). Where cultural factors affect adolescents' preferences regarding sexual activity, exchange considerations affect their power to act on these preferences within dyadic relationships. Because athletic participation increases boys' social position within the high school status hierarchy, it may be easier for them to request or even demand sex from girls. Furthermore, according to exchange theory, athletic participation also augments the social status of girls, but in contrast to boys, the status enhancement provides them with the power to resist male pressures. Social status accrued in this manner gives girls an alternative to trading sex for popularity or self esteem. In addition, athletic participation enhances the value of the package of resources that both girls and boys bring to the sexual bargaining table (Miller *et al.*, 1998).

It is assumed here that, as a general rule, girls and boys bargain with very different goals in mind. Where possible, boys pressure girls for sex whereas girls seek to resist

this pressure. Nonetheless it is clear in exchange theory that, all other things being equal; people try to act in their own best interests. While both genders have the capacity to enjoy sexual experimentation, girls experience two costs that boys do not: first, the century-old stigma against female promiscuity, and, second the risk of pregnancy. Girls may also be more viscerally aware of the potential negative social and economic consequences of an unplanned pregnancy and thus assign such consequences greater priority in weighing the potential costs of sexual involvement.

This framework generates hypotheses similar to those associated with the cultural processes approach. Male athletes are expected to use their status to bargain for sex, and thus, to have higher rates of sexual activity, more sexual partners, and earlier onset of intercourse than male non athletes. Other status-enhancing extracurricular activities should have substantially the same effect, increasing male sexuality and decreasing female sexual activity. Young people presumably make use of all status resources available to them, including participation in athletics, music, clubs, and so on. The greater the prestige gains associated with a given activity, the more that participation in that activity should mediate sexual outcomes. Thus, we expect the same interactions between gender and other extracurricular activities as we expect for sports and gender. Therefore, the present study is aiming at comparing sexual behaviour patterns of athletes and non-athlete male students at the University of Botswana that may lead them to HIV/AIDS infection.

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2.2 Overview of Youth and HIV/AIDS

There has been a general world-wide concern about youth sexuality and its consequences (e.g. National Campaign to prevent Teen Pregnancy, 1997). Much of the concern revolves around the perception that the age of onset to sexual behaviour has decreased dramatically. According to the Alan Guttmacher Institute (1994), five to ten percent of 12 year olds and 15 percent of 13 year olds have been reported to already have had intercourse. The same trend whereby young people engage in sexual debuts at early ages has been observed in many countries in Sub-Saharan Africa,

including Botswana (Botswana Ministry of Health, 1997; UNAIDS/WHO, 2002; Chilisa & Bennell, 2001; Kaaya, Flisher, Mbwambo, Schaalma, Aaro, & Klepp, 2002 and Meekers & Ahmed, 2000).

While young people in the Sub-Saharan Africa and elsewhere are amongst the healthiest in their communities (Gyepi-Garbrabet, Nicholas, & Kpedekpo, 1995 and WHO, 1989), it has been argued that their behaviour can place them at risk of unfavourable physical, mental and socioeconomic outcomes (Bambara, 1999; Bardone, 1998; Mclauley & Salter, 1995). In the case of unsafe sexual behaviour, adverse outcomes include sexually transmitted infections (STIs) such as HIV infection and early or unintended pregnancies. There has been much research involving a wide variety of health-risk behaviour among young people (Anderson, Albrecht, McKeag & Grew, 1991; Gingiss & Gollieb, 1991; Gundershein, 1987; Nattive & Puffer1991; Oler, Mainous & Martin, 1994; Selby, Weinstein, & Bird, 1990; Young, 1990; Zuckerman, 1979). From the studies of young people's risky behaviours, the idea that young people who participate in sports (athletes) possess unique or definable characteristics different from young people who do not participate in sports (non-athletes), is a common one. Normal sexual behaviour is not a concern for public health; the only concern is when it puts the society at risk of infection. The purpose of this literature review is to discuss the high-risk sexual behaviour of elite male student athletes and male student recreational sports participants as compared to male student non-athletes.

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2.3 Overview of Sexuality and High-Risk Behaviour

2.3.1 Sexuality and sexual behaviour

If the concepts of sexuality and sexual behaviour are to be understood as a construction of the social context, then they should be defined within the historical, sociological and socio-psychological contexts rather than in exclusive individualistic terms (Finchilescu, 1995). The social constructionist's view states that what is

constructed can also be re-constructed and sexuality should therefore be understood as a challengeable ideology rather than a biological fact. Although individual desire is acknowledged, the focus of the social constructionist movement is on the complexity of social forces, especially language and discourse, which determine people's behaviour (Finchilescu, 1995). The social constructionist paradigm emphasizes the understanding of these forces and the manner in which they influence the sexual behaviour of individuals. It also emphasizes the way in which these social forces influence the meaning individuals give to sexual behaviour.

International studies have shown a general trend in high risk-taking sexual behaviours (Canterbury, Clavet, McGrarvey, & Koopman, 1998 and Pattullo, Malonza, Kimani, Muthee, Ontieno, & Odhiambo, 1994). This includes a lack of willingness to use condoms, or using condoms ineffectively and inconsistently (Canterbury *et al.*, 1998). Surprisingly, literature reviews have revealed that this high amount of sexual risk-taking often persists despite high levels of knowledge and positive attitudes towards safe sex behaviours (Canterbury *et al.*, 1998 and Lance, 2001).

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A positive correlation was found between sexual risk-taking and general risk-taking behaviours, such as smoking, alcohol use and drug use. It was established that young people who engage in general risky behaviours, such as alcohol use, are much more likely to engage in unsafe sexual practices (Canterbury *et al.*, 1998 and Edwards, 1992). It is interesting to note that many heterosexual students who participated in risky sexual encounters were also able to accurately appreciate their susceptibility to the HIV infection, and thus had resultant anxiety. Although most students said they would use condoms if their partners suggested it, most agreed that they would rarely discuss safer sex methods with their partners. In conclusion, college students with high levels of sexual self-efficacy were linked to a low risk for HIV infection (Lewis, Malow, & Ireland, 1997).

2.4 High-risk Behaviour

High-risk behaviour can be defined as “a wide variety of behaviours that put [young people] at risk of morbidity and mortality” (Roberts & Ryan, 2002, p. 1061). Risk taking is considered to be part of adolescent development, contributing to independence and maturity. Visser (2003) defined risky behaviour as behaviour that is either physically or emotionally dangerous or contributes to developmental problems of the young people involved. Adolescents tend to engage in dangerous and health compromising behaviours such as a high average number of sexual partners, sex with unknown persons as well as less than positive views about condom use and a low behaviour change even after learning about HIV/AIDS (Uwalaka & Matsuo, 2002). Hedgepeth and Helmich (1996) state that human behaviour is rarely so logical or linear, for instance most individuals do not follow all prescribed steps in order, or they stop before reaching the goal, or they relapse into former behaviour, or some may never act. In all these cases, individuals may be left with a perception of total failure.

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According to Kalipeni, Craddock, Oppong and Ghosh, (2004) alcohol and substance use affects people’s risk assessment process. Coupled with sexual desire, this can reduce the ability to make responsible decisions. Risky sexual behaviours, as identified by Akande (2001), include drug abuse, injecting drugs, alcohol abuse, multiple sex partners, unprotected sex, premarital sex, exchanging sex for money, cross-generational sexual relationships, early sexual debut and extra-marital relationships and sex with unfamiliar people. While individuals of all ages engage in high-risk behaviour, it is quite prevalent among young people (Arnett, 1996). The Center for Disease Control and Prevention (2006) identified several high-risk behaviours among students such as tobacco abuse, alcohol abuse, drug abuse, and risky sexual behaviours such as multiple partners, non-condom use and drug or alcohol use prior to intercourse.

For young people, high-risk behaviour is a very complex phenomenon contributed to by many factors. In much of the discussion of health education and behaviour changes in the area of HIV, attention is focused on how individuals perceive and respond to risk (Anderson, Wilkie & Keynes, 1998). Van Wyk and Tshivase (2005) stated that sexual behaviour is often not determined by rational and conscious decisions, and so it is not surprising that educating people and giving them information about the dangers of HIV/AIDS does not always persuade them to give up unprotected sex. Perception of risk is to a degree determined by the social and cultural context and is not simply an individual judgment. Factors that influence young people to engage in risky sexual behaviours are cultural, economic and psychological.

Genetic and contextual influences, although discussed independently, often act simultaneously and have the largest impact on young people's risk-taking behaviour. Genetic influences on young people's behaviour include factors inherited from the biological parents as well as their biological predispositions characteristic of life at the youth stage. For example, research has supported the notion that the tendency for substance use is a behaviour that may be passed down from parent to child (Lerma, Patterson, & Shields, 2003). It must be emphasized, however that heritability only accounts for a small portion of the phenomenon of high-risk behaviour among the youth. While heritable traits may increase an individual's predisposition to engage in certain behaviours, the biological issues common among many young people, such as hormonal changes, "sensation-seeking" (Arnett, 1995, p. 67), and changing cognitive conditions, are also important. For instance, Arnett (1995) believes that hormone fluctuations in young people account for heightened aggressiveness and reckless behaviour, especially among males. Furthermore, adolescents may exhibit low impulse control, which, when coupled with sensation-seeking, could influence young people to make unhealthy decisions that lead to risky behaviours (Arnett, 1996 and Donohew, Palmgreen, Zimmerman, Harrington & Lane, 2003). Sensation-seeking can be described as the "propensity for seeking our novel and intense experiences"

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(Arnett, 1996, p. 67), and may influence individuals' engagement in behaviours that feel exciting or thrilling. Arnett, 1996, Stenberg, 2003 and Donohew *et al.*, 2003 discuss sensation-seeking and impulsivity as personality traits that predispose some individuals to high-risk behaviour, while Arnett (1995) asserts that sensation-seeking is heightened during adolescence for many individuals, and plays a large role in young people's risky behaviour.

Cognitive considerations important to the study of young people's risk-taking include young people's sense of "invulnerability" (Lapsley, 2003, p. 25) and judgment (Steinberg, 2003). Young people often exude an extreme sense of confidence, and behave as though they are indestructible. According to Lapsley (2003), the context in which young people perceive themselves as invulnerable is of particular importance. For example, showing invulnerability in interpersonal situations (that is, not allowing others' opinions to harm you) serves to protect young people. On the other hand, invulnerability to danger (that is, external harmful situations) may lead young people to disregard the consequences of high-risk behaviours, such as unprotected sex. Additionally, young people's cognitive abilities may limit the maturity needed in their judgment. Steinberg (2003) emphasizes that young people are not deficient in decision making skills, but in the ability to maturely judge situations due to cognitive, social, and emotional influences.

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While there are predispositions that may contribute, in part, to high-risk behaviour among young people, Arnett (1995) stresses that the context in which young people socialize (i.e., peers, family, and social factors) largely determines whether or not s/he will engage in such behaviours. Steinberg (2003) states that high-risk behaviour among young people seldom occurs individually, but happens in group situations. Young people's behaviour is greatly influenced by their peer group, with whom they spend much of their time during their teenage years (Warr, 1993). Young people's peer groups are close-knit entities that require strong encouragement and conformity from their members (Arnett, 1996). According to Deschesnes, Fines & Demers, (2006) and DiClemente, Wingood & Crosby, (2003), young people conform to peers'

standards and emulate their behaviour, even if the cost is engaging in high-risk behaviour. Young people's exposure to peers who engage in negative behaviours, such as theft or abuse of drugs, increase during teenage hood and are a topic of concern among many adults (Warr, 1993).

Parental influence also has a role in young people's risk-taking behaviour. For instance, the amount of parental monitoring that occurs in the home may be related to the amount of high-risk behaviour in which young people engage (Stanton & Burns, 2003). Parental monitoring, which includes parent-child communication regarding principles and beliefs and parental supervision, seems to have positive effects on young people's behaviour across various ages, ethnic, and social groups. In addition to peer pressure and family influences, social factors are also related to high-risk behaviour in young people. According to DiClemente *et al.*, (2003), factors such as media exposure and economic stress affect young people's involvement in risk-taking behaviours. For instance, various media sources such as magazines, television programs, and advertisements, targeted at young people, may romanticize engagement in high-risk behaviours, such as tobacco use. While not all young people perceive risky behaviours as desirable, those of low socioeconomic status might not have the resources, such as money to purchase condoms, needed to prevent them from engaging in risky behaviours, such as unprotected sex.

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For some young people, risk-taking and other acts of deviance are learned behaviours that can lead to a way of life (Adler & Adler, 1978). For instance, many young people become lost in the crowd of classmates, peers, teammates/club mates and the larger society, and choose to regularly engage in minor high-risk behaviours simply because it is a change of pace, and they can get away with it. In a similar way, young people may choose to engage in having multiple sexual partners and unprotected sexual intercourse, which could also be considered a form of high-risk behaviour, to symbolize uniqueness and self expression amid that same crowd of teammates, classmates, peers and larger society. The topic of high-risk behaviour not only

warrants the discussion of influential factors, but also of the co-occurrence of risky behaviours among young people.

Research has supported the assumption that young people who engage in certain risky behaviours are likely to engage in other behaviours of that nature (Biglan & Cody, 2003). In an effort to explain this trend, Donovan and Jessor (1985) proposed that young people's engagement in high-risk behaviours is characteristic of a syndrome in which the set of symptoms are risky behaviours and the common factor uniting the symptoms is the notion of "unconventionality." Thus, young people engage in various high-risk behaviours that are unconventional or deviant, and are more likely to engage in other such behaviours for the same reason. Arnett (1998) found similar evidence for the syndrome of high-risk behaviour among individuals in late adolescence. On the other hand, Byes (2003) believes that because adolescents do not act in the same manner across all contexts, engagement in high-risk behaviour is situation-specific, and not characteristic of a syndrome. Thus, young people are likely to engage in high-risk behaviours if the situation presents them with the opportunity to do so. Bynes (2003) advocates for the development of an integrated approach to the study of high-risk behaviour in which both viewpoints (risk-behaviour as syndrome and as situation-specific) are taken into consideration.

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2.5 Sexual Risk and Accountability

Traditional socialization has taught us that "real men" initiate sex and are in charge of sex from beginning to end. In addition "real sex" must involve penetration (Campbell, 1995). As a result, men are taught to believe that they must know everything about sex and that they must appear as if they are always ready and willing to have sex. Also, they are to be the aggressors and active participants in all sexual encounters. According to Campbell (1995), boys learn that sex is something they are expected to do with girls, while girls learn that sex is something that is supposed to happen to them. Campbell emphasizes the content of the traditional model by explaining that men are trained to see sex as a conquest, with the number of

conquests serving as an indicator of their manliness. This obviously contradicts the safe sex guidelines.

Traditional sex roles also taught to young men to test their potential so as to verify masculinity, to acknowledge the woman's attractiveness and to test her virtue (Peplau & Hammen, 1977). Men were taught to exercise positive control in the relationship by initiating sex and women to exercise negative control by refusing sex. Masculinity is fragile, provisional, sometimes to be won and then defended, and sometimes under constant threat of loss (Walker *et al.*, 2004). Forman (1998) argues that masculinity is associated with bravery, physical virility and psychological strength, independence and sexual activity. Forman further points out that male sexuality and the drug-taking behaviour is dictated by deeply-rooted widespread concepts of masculinity. The author further argues that masculinity values are instilled by society as a whole and reinforced by peer pressure.

Masculinity is achieved in a variety of ways and is often accompanied by unrealistic expectations and pressures. This view is reflected by the expectations that society holds of men, such as expecting them to have sexual intercourse, to have many partners and even to reject condoms (Forman, 1996). Other authors are in agreement that these expectations and norms surrounding masculinity, ironically place men in a position of vulnerability with regard to HIV infection (Walker *et al.*, 2004 and Scaliway, 2001). Kelly (2004) further argues that male sexuality is a complex phenomenon shaped by personal, cultural and social factors, and social norms have been found to be influential in the choices that men make. In the United States, studies have revealed that males (heterosexual or homosexual), are considered to be at the mercy of biological forces that impel them to seek as many partners as possible (Foreman, 1998). Furthermore, Foreman states that polygamous societies formalize the belief that men cannot be sexually restricted to one woman. It has also been proven that in some cultures, such as in Latin America, a man who has sex with another man is seen as virile. Scaliway (2001) asserts that sex and masculinity are closely entwined in men's eyes. Apparently, the fear of losing masculinity places men

at the risk of contracting HIV. Therefore, men end up having large numbers of sexual partners in order to express virility and manliness. Inch (2003) argues that 'dominant discourse of hetero sex typically portrays male sexuality as a predatory instinctual and voracious force'. Such representations have traditionally pervaded western understandings of hetero sex, arguably prescribing a strong hegemonic model of "proper" masculine sexuality for young men to adopt.

Despite research that has documented convergence between the sexes, it still remains unclear whether these changes at the individual level have affected the behaviour of sexual interaction in couples (Peplau & Hammen, 1977). Inherent in traditional male gender roles is a call for young men or boys to take sexual risks or be promiscuous. The impact this has on males taking responsibility in sexual relationships is questionable. On the one hand, it has been assumed by men that women will take responsibility for contraception. This has been encouraged by the advent of the female pill as a more reliable method of contraception. If contraception was ineffective, the responsibility of pregnancy has also been viewed as the responsibility of women (Campbell, 1995).

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In contrast the trend for men to carry condoms seems to challenge the idea that men view women as being responsible for contraception. It is possible, however, that the carrying of a condom rather represents a symbolic gesture indicating sexual manhood or sexual risk-taking which men need to display in order to meet the prescribed gender roles. The carrying of a condom could also indicate the importance for men to be seen as being in control as prescribed by the traditional gender roles. These possibilities, however, show that the carrying of a condom could be more about fulfilling traditional gender roles rather than taking responsibility for the sexual risks related to sexual intercourse. However, with the increasing awareness of the risks of contracting STDs or the HIV infection, the carrying of condoms by men might indeed indicate a willingness on their part to take responsibility for risks related to sexual intercourse. Further exploration of such a specific behaviour on the part of men, is needed before one can be certain as to the meaning of such behaviour (Kimmel,

1987). Turner, (1970) noted that the effects of sexual relationships depend upon the meaning that people attach to sex and not upon an innate significance. In a society where various meanings of sex are available, young people's interpretations of sexual behaviour are of great importance and require exploration.

2.6 Predictors of Young People's Sexual Behaviour

Several factors have been documented as predictors of young people's sexual behaviour and should be taken into account in this research, particularly those factors that might correlate with both sexual activity and participation in sports. Not surprisingly, a strong relationship has been documented for the age of first sexual activity (Koyle *et al.*, 1989; Thornton, 1990).

2.6.1 Demographic Factors

As children move into the teen years, their interest in sex increases, and as they are granted more autonomy, opportunities for sexual experimentation simultaneously grow. Hence, age is associated with several measures of sexual behaviour, including early first intercourse (Miller et al., 1997); ever having had sex (Harvey & Sprigner, 1995); and lifetime frequency of sexual intercourse (Benda & DiBlasio, 1994), whether measured by parental educational attainment (Harvey & Sprigner, 1995; Miller *et al.*, 1997) or poverty status (Males, 1993). Lower socioeconomic status is related to increased adolescent sexual activity (Miller & Moore, 1990). Sports participation also correlates with frequency of sexual activity and age of first intercourse.

2.6.2 Family Relationships

Findings regarding the effect of the quality of family relations on sexual behaviour are mixed (Miller & Moore, 1990). Previous studies have focused on a variety of types of familial interaction, including communication, control and cohesion. Though open communication between parent and child is often viewed as a critical factor in

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delaying or reducing adolescent sexual activity, White and White, (1991) found that such communication did not consistently have the expected effect. No consensus exists regarding the effects of parental discipline and control, either. Some scholars argue that the impact of control is curvilinear, with moderate levels of parental strictness yielding lower rates of adolescent sexual activity than high or low levels (Miller *et al.,* 1986), However, these findings may reflect a failure to adequately specify the type of parental control (Barnes & Farrell, 1992; Voydanoff & Donnelly, 1990). In addition, high levels of parental support and monitoring have been associated with lower rates of sexual activity (Barnes & Farrell, 1992; Benda & DiBlasio, 1994). Family support and cohesion, or the degree of bonding among family members, also influences the frequency of delinquent behaviour among adolescents ((Barnes & Farrell, 1992; Farrell & Barnes, 1993). However, researchers have not isolated sexual behaviour from aggregate measures of delinquency (Farrell & Barnes, 1993). Weighing these findings, family cohesion seems to be the best indicator of family process factors that might influence sexual behaviour.

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2.6.3 Other extracurricular activities

While substantial effort has been devoted to exploring young people's sexual activity, surprisingly little attention has been paid to the impact of extracurricular school activities. Control theory suggests that young people with too much time on their hands can end up in trouble, but the proportion has not been applied empirically to sexual reproductive outcomes, with one notable exception. Zill *et al.* (1995) found that female students who reported spending time on non-athletic extracurricular activities (e.g. the school play and music) were at less risk of pregnancy than those who did not, though they found an even stronger correlation between athletic participation and childbearing.

Despite the scarceness of research on the linkage between extracurricular activity and sexual behaviour, there is good reason to pursue this association. In assessing the effects of sports participation on young people's sexual activity, it is important to

establish whether sports really do have a unique impact. It may be that, as Marsh (1992) suggests, both sports and other kinds of extracurricular activity are part of a more general pattern of social participation, heightening involvement in and commitment to school and conventional behaviour patterns.

2.7 Research on Young Adults' Sexual Behaviour

2.7.1 Youth and high-risk sexual behaviour

Sexuality is central to the role of HIV and the quality of life. Its role is related to the part played by sexual behaviour in HIV transmission (Ross, 1995). High-risk sexual behaviour is a serious problem for young people (Barone *et al.*, 1996 and Meekers & Ahmad, 2000). Since the first AIDS case was identified in Los Angeles in 1981, AIDS has become the scourge of the century. According to Kaaya *et al.* (2002), a considerable fraction of young people are reported to be sexually active. In their study, which reviewed articles on the sexual behaviour of school students in Sub-Saharan Africa, Kaaya *et al.* (2002) found that the age of onset of sexual activity was from 12 to 15 years for both sexes, and the mean age of sexual debut was 14 and 15. The proportion of females who experienced sexual intercourse was between 10% and 24%, while for males it was between 18% and 63%. Boys and older students were more likely to report being sexually active (Kaaya *et al.*, 2002). The study further revealed that sexually active males consistently reported an earlier age of sexual activity than their female counterparts. The study concluded that there is an early age of onset of sexual behaviour, large proportions of sexual activity, unprotected sexual intercourse and more than one lifetime sexual partner among students of both genders in Sub-Saharan Africa.

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Although HIV is not exclusive to Botswana, it is an issue of considerable concern due to its potential effect on the overall population profile and economy of the country (Chappell, 2004 and Ministry of Health, 1997). According to the Ministry of Health (1997), 45 percent of the Botswana population is aged between 15 and 49 years (an

age group identified by this ministry as the most sexually active of all the population groups), and is currently accounting for about 81 percent of reported cases of HIV/AIDS in Botswana. In support of this view, various writers (Bajos *et al.*, 1997 and Silva *et al.*, 2002) state that the number of HIV/AIDS cases amongst the young people is increasing. According to Peretti-Watel *et al.* (2004) many studies have attempted to assess whether or not various factors such as family background, socio-economic status, psychological disorders and sporting activity are linked to high-risk sexual behaviours. This research will specifically focus on the relationship between sporting activity and high-risk sexual behaviour among male students.

Despite the fact that AIDS is a relatively new phenomenon in Botswana, the rate at which it is spreading is alarming (Letamo *et al.*, 1997). According to Letamo *et al.* (1997), the 1994 sentimental surveillance study estimated that the number of people infected with HIV rose from 60 000 in 1992 to over 125 000 in 2004. Furthermore, the 1995 sentimental survey also showed that approximately 13% of the general population was infected with HIV. Also, the National Coordinating Agency (NACA) asserted that since the first case was diagnosed in 1985, the prevalence has been rising rapidly. The population of Botswana was 1.47 million in 2004, and the virus is expected to half the population by the year 2006 (Chappell, 2004). The Medium Term Plan 11 (MTP 11) asserts that 45% of the population of Botswana is aged between 15 and 49 years and this age group is the most economically active at both national and household levels.

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According to the UNAIDS/WHO report, most young people (aged 15-24) in the world have no idea of how HIV/AIDS spreads or of how to protect themselves from the disease, despite the fact that many are becoming sexually active. Surveys from African countries showed that more than 50% of young people aged 15-24 have grave misconceptions about how HIV/AIDS spreads (UNAIDS/WHO, 2002). An exception to this finding would be in the case of University students, who through several studies have been considered as knowledgeable, yet such alleged knowledge does not seem to result in the assurance of risk-free and responsible behaviour (Chilisa and

Bennell, 2001). No studies have been conducted yet of comparing athletes and male non-athletes at the University of Botswana with the surrounding countries. Therefore, this study might contribute to the stakeholders and the community at large in identifying specific high-risk groups, so that they can be targeted for education on changing sexual behaviour that could put them at risk of contracting the HIV virus. Few statistical data is available from studies carried out in Botswana on adolescent sexual behaviour, particularly on males. Available literatures on the continent are reviews on the studies of sexual behaviour of school students in sub-Saharan Africa. The reviews showed that none of the studies were focusing on comparing male athletes and male non-athletes, or males' sexual behaviour. Therefore, almost all studies referred to in this field are from the United States of America.

2.7.2 Students and high-risk sexual behaviour

University life tends to correspond with the time when young people are more independent from their parents than they were as adolescents, but have not yet taken on adult role responsibilities. They have the opportunity to engage in experimentation and exploratory activities in various areas that characterize adulthood. Thus young adulthood can be viewed as a period of transition from adolescence to full adulthood. Arnett (2001) defines this transition to adulthood as entering the roles that are typically considered as part of adulthood: fulltime work, marriage, and parenthood. Unfortunately the advent of HIV/AIDS has targeted this group, contradicting Arnett (2001), who views this stage as a period with the least susceptibility to physical illnesses and when the immune system is at its most effective and thus considering it as an exceptionally healthy time of life. It is however, a period of greatest susceptibility to a variety of health problems associated with behaviour. Hence the rates of contracting sexually transmitted infections including HIV are highest in the twenties. Parallel studies conducted in the USA on student sexual behaviour can be found in both Botswana and South African literature. Studies conducted in the USA have shown that students as a distinct youth group are not only sexually active, but often display high-risk sexual behaviour. Hernandez and Smith (1990) found that

students at tertiary institutions in the USA were among those with the highest risk of becoming HIV infected (Hernandez & Smith, 1990). Similarly, studies in South Africa found that the majority of sexually active students do not use condoms (Skinner, 1992). It was also found that having multiple sexual partners is more common among male students (Pettifor *et al.*, 2004; Simbayi, *et al.*, 2004). Furthermore, studies conducted in Botswana revealed that high-risk sexual behaviour among young people appears to be on the increase (Chilisa & Bennell, 2001; Meekers & Achmed, 2000; Ministry of Health, 1997).

A study focusing on the University of Botswana revealed that students engage in high-risk sexual behaviours such as unprotected sex, frequent change and exchange partners, sex for financial gain and multiple partners. These studies indicate that while the majority of students perceive HIV/AIDS to be a serious problem at the University, many believe themselves to be at little or at no risk of contracting the virus (Chilisa & Benell, 2000). According to Chilisa and Benell (2000), recent studies on the impact of HIV/AIDS at seven universities in Sub-Saharan Africa reported similar patterns of student sexual behaviour and thus this kind of behaviour is not unique to university students in Botswana. These findings are in accordance with the findings of studies carried out by Silva *et al.* (2002) and Adams *et al.*, (2002), and a study that reviewed forty seven articles on the sexual behaviour of school students in Sub-Saharan Africa, which found that a substantial proportion of young people report being sexually active (Kaaya *et al.*, 2002).

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2.7.3 Youth and sexual behaviour in Botswana

In Botswana, like in other areas in Southern Africa, there is a growing concern about the risks associated with young people's sexuality (Meekers & Ahmed, 2000). Botswana has one of the highest rates of HIV prevalence in the world (Social Impact Assessment and Policy Analysis (SIAPA), 2001). It has been found that young people in Botswana become sexually active at an early age, and that many of them have multiple partners (Meekers & Ahmed, 2000). According to Meekers and Ahmed,

(2000), young males appear to be a particularly vulnerable group. It has been argued that in Botswana young people's sexual relations is associated with high levels of pregnancy, abortions and HIV transmission (Dynowski-Smith; Ingstad, 1994; Lesetedi *et al.*, 1989; NIDRD, 1988). HIV infection is cited as the main challenge to the reproductive health of young people in Botswana. Other important factors in sexual decision-making include STIs, pregnancy and gender roles. According to SIAPAC (2001), 40% of the population in Botswana aged 15-49 is HIV positive. Meekers and Ahmed (2000) argue that young people have the highest HIV infection. It has been found that many young people in Botswana believe that HIV is always transmitted from mother to child, and very few young people can accurately describe the progression of HIV to AIDS (SIAPAC, 2000). This means that young people have little understanding of the fact that the HIV virus is linked to AIDS-related illnesses and therefore, cannot fully comprehend the concept of living with being HIV positive. SIAPA (2000) asserts that without a deeper knowledge of HIV and AIDS, young people find it hard to personalise their risk of HIV infection, therefore, they are not well equipped to avoid HIV infection.

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Several authors argue that the incidence of risky sexual behaviour among Botswana youth might be fueled by the alteration of the Tswana traditional norms by Western influences (Letamo, 1993 & Motshologane, 1978). According to Letamo, (1993) and Motshologane (1978), the changes in traditional norms regarding sexuality have led to a new concept of sexuality, based on romantic love and increasing levels of sexual permissiveness. They further assert that the results of modern patterns of sexual behaviour differ from the traditional cultural norms. Instead, these modern patterns are influenced by the modern Western norms. For example, traditionally, in the Tswana culture young people were taught about sexual behaviour during their initiation ceremonies (Meekers & Ahmed, 2000). Acts like childbearing outside wedlock and premarital sexual relations were condemned and punished. Due to Western influences, these traditional means of control of premarital sexual behaviour have weakened. Young people can meet in schools, at shops, and social clubs

(Motshologane, 1978 and Schapera, 1971). The discussion on traditional sexual behaviour norms of the Botswana youth is beyond the scope of this study. It will therefore not be discussed in detail.

Compared to the studies carried out in the early 1990's, the 2001 survey suggests that young people of today are slightly more aware of STIs than in the past (SIAPA, 2001). The awareness of AIDS was already 100% in the early 1990s, and this remained at 100% in the 2001 study (SIAPA, (2001). Furthermore, SIAPA (2001) argues that HIV is still not real to the majority of Botswana youth. The youth assume that they are very unlikely to contract the virus and do not believe that their friends may be HIV positive. This lack of recognition has meant that there is still a great stigma attached to having HIV. In their analysis, SIAPA (2001) found out that although attitudes towards condom use were very positive, the main reason for using condoms was for the prevention of pregnancy. It was also found that most young people felt that it was unrealistic to believe that a condom can be used during every sexual act. This attitude and the denial of personal risk of HIV infection clearly undermine the significance of the positive attitudes about condom use.

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Furthermore, it was found that many girls felt that they could not insist on using a condom if the boy refused, even if she suspected that he had an STI. This belief does not seem to include the fear of HIV, but only the more common STIs. Overall, realization of personal risk appears to be higher than in the early 1990s. However, the risks of pregnancy and STIs are acknowledged by the young people to a greater extent than the risk of HIV infection, possibly because these are visible risks (SIAPA, 2001). Although more young people claim to be using condoms now than in the mid 1990s, these statistics may be subject to reporter bias and need to be looked at against the incidence of STIs and pregnancy rates. Unfortunately, statistics remain high for both pregnancy and STIs (including HIV) for Botswana youth. It has been found that young people have more sexual partners now than five years ago. Not all young people are delaying their first sexual experience either due to peer pressure or due to

sexual coercion. Also, by the time they reach the age of 20, half of all males and females would have had sex already.

The average age of first sexual intercourse was 17, the same as for the early 1990s, showing that sexually active teenagers are engaging in sex at an early age. Condom use rates were as high as 80%, which is similar to the findings from the mid 1990s, even though many sexual acts were not planned in advance. The number of casual partners of sexually active youth may even have risen, but the average number of regular sexual partners appears to have declined. While a greater number of the young people are using condoms now than in the past, many of them are having problems with these condoms and only use them occasionally. It appears that more young Botswana people are opting to delay the onset of sexual activity than in the past. Only 3.3% young girls and 10% young boys had ever had sex. Kempe, (1999) found that knowledge of HIV/AIDS, its transmission and prevention was high among the University of Botswana students. According to Seloilwe (2005), the University offers HIV/AIDS in its curriculum, but that one's level of education may have very little bearing on behaviour.

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2.8 Research on Young Male Adults' Sexuality

2.8.1 Young male sexuality

Much of the information that has been researched and recorded has focused on young females and therefore as a result of this, information about the dynamics of young male sexual behaviour is virtually non-existent (Finkel & Finkel, 1983). For example, in Africa, this view is confirmed in the study reviewing articles on the sexual behaviour of school students in the Sub-Saharan Africa. The study found that except for six, all articles reviewed sampled mixed populations of male and female youths.(Kaaya *et al.*, 2002). The reason for this is that the focus of research to date has been directed towards fertility control since it is generally the female who comes into contact with the health system, seeking help for fertility-related and reproductive

health issues. Although, there is an increasing awareness of the importance of including male partners in the reproductive health research, the few studies that have attempted to address this have again, as with young females, begun to initiate studies that only record the range and frequencies of young males' sexual behaviour and contraceptive usage (Campbell, 1995 and Finkel & Finkel, 1983). This information has been used to compare sexual behavioural patterns and trends between firstly, young females and males and secondly, between different communities and population groups (Finkel & Finkel, 1983).

Such comparative studies however, still do not provide a clear definition or understanding of young male sexuality or how young males experience their sexual behaviours and sexuality. Attempts to understand the male experience have been provided by the psychoanalytic school of thought, though many of these studies or theories do not focus specifically on male sexuality but rather focus on the concepts of masculinity, innate male patterns or archetypes and gender differences (Bolen, 1989). It is only in more recent years that researchers have begun to explore the concepts of masculinity and make use of qualitative methodology to explore the male experience of masculinity and sexuality (Kimmel, 1987). These studies have focused on the male gender role and gender socialization as important factors to the understanding of male sexuality (Kimmel, 1987 and Pleck, 1976). It seems that gender socialization, male gender roles, sexual risks and responsibility, homosexuality, as well as the social context of sexual behaviour, are important factors inherent in the understanding of male sexuality.

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2.8.2 Cultural expectations and heterosexual males

A variety of recent works has examined the relationship between athletic participation, gender, and sexuality from the perspectives of critical sociological, cultural and gender theories. Sport is viewed as a cultural site for the construction of traditional or hegemonic masculinity (Messner & Sabo, 1990) that serves as an institutional training ground for manhood.

Building on the work of Caron *et al.* (1985) and Houseworth *et al.* (1989) on male college students, Andre and Holland (1995) found that younger athletes of both genders score higher on self-reported masculine traits than do their non-athletic counterparts, and male athletes display more traditional attitudes towards women than non–athletes. Sabo and Messner (1993) argue that, as adolescence progresses, sexual identity emerges as an extension of an already formed gender identity, thus sexual behaviour becomes scripted in accordance with the wider cultural norms that pattern gender relations. Cultural expectations attached to masculinity may encourage boys to initiate sex, to be sexually aggressive with girls, and to regard sexual conquest as a validation of male adequacy (Zilbergeld, 1993). Furthermore, several authors asserted that cultural expectations might also encourage male involvement in risky behaviours such as the use of alcohol and other substances, delinquency, and sexual promiscuity (Pleck *et al.*, 1993 and Skolnick, 1993). While sport amplifies traditional gender scripts for males, it de-emphasizes or even contradicts conventional scripts for females (Miller *et al.*, 1998). Furthermore, Miller *et al.* (1998) argue that sport provides both a set of cultural prescriptions and a set of bargaining resources that play key roles in determining young athletes' sexual behaviour. Thus, athletic status translates into bargaining power (to exploit or resist exploitation) for athletes. Miller *et al.* argue that athletic participation confirms traditional gender scripts for boys. Therefore, since these scripts promote (if not overtly) the exchange of female sexual favours for male prestige, athletic activity indirectly increases sexual activity for boys.

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Traditional gender socialization has attempted to teach men that a real man is a heterosexual man (Campbell, 1995; Kimmel, 1987; Thompson & Pleck, 1986). There was an assumption that male sexuality was a heterosexual sexuality. Once again this assumption has been challenged on two fronts. As feminists have begun to challenge more traditional perspectives on male sexuality, the homosexual community and human rights movements have, politically and academically, begun to challenge the limited view of male sexuality as being heterosexual. Homosexual men have objected

to male sexuality being limited to heterosexual intercourse only. On the street, homosexual campaigns and “gay parades” continue to challenge these assumptions worldwide (Kimmel, 1987).

On a theoretical front, most studies on homosexuality have showed that male sexuality is not inherently or exclusively heterosexual (Kimmel, 1987). In addition to this view, research has also indicated that not all heterosexual sexuality is about interaction with females, as same-sex interactions on varying levels also informs on both homosexual and heterosexual sexuality (Kaminer & Dixon, 1995 and Kimmel 1987). Both homosexual experiences or experimentation and same sex bonding in all social interactions and environments, have been identified as informing the sexual development of both homosexual and heterosexual males (Kimmel, 1987). Kimmel, (1987) argues that masculinity has to be understood firstly by differentiating it from femininity. Secondly, there needs to be an awareness of the existence of similarities and differences between heterosexual and homosexual sexuality within the context of masculinity (Kimmel, 1987). According to Kimmel, the differentiation is important because homosexuality was understood to have feminized males for so many years (that is, homosexual males were described as men who are like women). As a result, it became important for heterosexual males to differentiate themselves from that understanding of homosexuality. Heterosexual masculinity had to be understood in contrast to homosexuality (Kimmel, 1987). Homosexual males also wanted to differentiate themselves from the existing traditional male gender roles and challenged the assumption that the traditional gender roles could be generalized as being applicable and appropriate to all males (Kimmel, 1987).

HIV/AIDS has brought a new examination of what "having sex" means, especially among young people. How young people define "having sex" is important because it helps determine whether they consider themselves to be at risk, and if so, how they respond to HIV-prevention efforts and also how they report sexual experiences in surveys. Surveys generally have considered people as sexually active only if they are

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having vaginal intercourse. Sexual behaviours such as anal intercourse, however, are not linked to pregnancy but do pose a risk of HIV/AIDS and other STIs.

2.8.3 Sexuality, gender and male gender role

According to Gupta (2000), sexuality is distinct from gender, yet intimately linked to it. It is a social construction of a biological drive. Gupta holds the view that gender is a culturally-specific construct that refers to the widely shared expectations and norms within a society about appropriate male and female behaviour, characteristics and roles. Stone (2000) concurs that sexuality assumes different forms in relation to changing variables such as kinship structures, gender relations and ideologies, patterns or residence, mobility and occupation, economic and class relations, structure of ethnicity and race, access to use of contraception, demarcations of public and private spheres, and a host of other elements of social life. Gupta argues that sexuality is a social construct imbued with relations of power.

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On another note, masculinity has traditionally been associated with those traits that imply authority, dominance and mastery, while femininity has been associated with those traits that suggest passivity and subordination (Kimmel, 1987 and Pleck, 1976). According to traditional normative standards, men are expected to flaunt an independent stature that is achievement-orientated, incompetent in all feminine activities, good at suppressing emotion, level-headed and self-contained, be active, physically strong and aggressive in the appropriate situations and dominant in interpersonal relationships (Thompson & Pleck, 1986). Traditional male and female role-playing has also extended to sexual behaviour and beliefs about sexuality and is closely linked to conceptions of masculinity and femininity (Peplau & Hammen, 1977). Traditional sex roles prescribe a double standard of sexual morality. Tradition assumed sex differences between men and women, and also encouraged the so-called “double standard”, namely, sexual abstinence for women and sexual permissiveness for men (Peplau & Hammen, 1977). The traditional gender role paradigm views men as being more interested in sex than women, more easily aroused and having a greater

need for sex. However, research conducted by Masters and Johnson (1966), challenged this ideology. Traditionally, men are expected to be the sexual initiators. Sexuality performance has been identified as one of the crucial arenas in which masculinity is socially constructed and enacted. Masculinity hinges on demonstrable sexual orientation and perceived sexual performance, failure would challenge the essence of traditional masculinity or the male gender roles (Kimmel, 1987). According to Kimmel (1987), such sexual failures would confront men with the responsibility that they are not "real men".

There are many contradictions in the definition of the male sex role and what traits, attitudes and interests' men are expected to show or actually do in contemporary society (Pleck, 1976). An example is an analysis of a national survey of males that were carried out in America in 1988, which evaluated the speculations about the extent of promiscuous sexual behaviour among adolescent males. According to Holmbeck, *et al.* (1994), terms such as "sexual adventures" and "roving inseminators" have been used to describe groups of promiscuous young males who seek out conquests. On average however, such promiscuous behaviour was found to be quite unusual. To the contrary, the investigators concluded that these young men had surprisingly conservative sexual behaviours.

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Despite these contradictions however, even though the more socially correct role is accepted, some elements of the traditional male role continue to persist both culturally and in the personalities of modern males, as, traditional behavioural patterns are resistant to change. On the other hand, although modern gender roles challenge the traditional ones, it still remains unclear whether these modern gender roles are actually accepted and enacted by men. According to Pleck (1976), the modern male gender role encourages interpersonal skills as they promote smooth collaboration with others towards the achievement of an effective management of the capacity for tenderness and emotional intimacy when restricted to romantic heterosexual relationships only, companionship and intimacy in relationships with

women, and decreased emotional bonding in same-sex activities but not in high levels of competence in conducting work relationships.

Lack of data on the young male gender roles and sexuality is evident and those studies that have included the young male in their research have shed little light on the young male‘s exploration of masculinity, sexuality or on sexual behaviour (Snell *et al.*, 1988). This is of concern when one realizes that a large percentage of contraceptive use among young people is accounted for by methods used by the male partners (Finkel & Finkel, 1988).

2.9 Research on Sports Participation and Sexual Behaviour among Young People

2.9.1 Sexuality in sports

Sexual indulgence has become a trademark of modern day athletes (Benedict, 1998). Sexuality in sports is a recurring theme, and there is a huge concern about sexuality among professional athletes. Coverage of athlete sexuality or appearance of sex scandals involving athletes is wide-spread and constant (Keller, 2004). According to Benedict (1998) & Peretti-Watel *et al.*(2004), an increasing number of athletes publicly boast of uncontrolled sexual promiscuity among themselves and their teammates. Regardless of the reports on the risky sexual behaviour of athletes, there are only three recent studies that have comprehensively addressed the impact of sports on the sexual behaviour of youth, dealing only with girls and not assessing the impact of sports participation *per se* (Miller *et al.*, 1998). Studies have revealed that for males in high schools, sport participation is associated with higher levels of sexual activity (Miller *et al.*, 1998, and Kokotailo *et al.*, 1996). Therefore, when young athletes reach professional level, they perceive access to limitless sex as just another facet of the entitlement that accompanies being a professional athlete. Women are part of what comes with it (Benedict, 1998). According to Benedict, the public’s exposure to athletes’ sexual practices, has popularized the term “groupie”, a label

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loosely applied to women who hang around athletes and often engage in sex with them. By reducing sex to a fringe benefit, women become mere objects for the pleasure of athletes. Benedict (1998:19) quote an athlete saying the following in a personal interview: " …women are handing over their bodies to me, its mine for the taking, they are there. Why not? …its not like I went out and raped her or grabbed her. She just presented herself on my lap…". According to Benedict, groupie behaviour provides athletes with the availability of recreational sex. This author further contends that athletes' ability to classify women as leisurely possessions available for their self-gratification and their subsequent disposal, can be fully appreciated by realizing that even married players have their promiscuity understood and condoned by their wives: "…they have implicit deals with their wives that they're going to sleep around. The wives know it" (personal interview with a player). Sports have also been found to enhance social status for athletes, giving them greater power in negotiating sexual outcomes in their relationships. Athletes are therefore more likely to contract the AIDS virus through these high-risk lifestyles they engage in (MacCallum, 1996).

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Miller *et al.* (1998) argues that if athletic participation and sexual activity are affected by the same factors such as race, socio-economic status, and quality of family interaction, then it may be that, once these factors are controlled, the relationship between sports participation and sexual behaviour would be diminished if not altogether eliminated. According to Miller *et al.* (1998), athletic involvement should be associated with lower frequency of sexual intercourse, fewer sex partners and later age at first onset of sexual activity. To these authors, any structured extracurricular activity should have essentially the same impact, thus formal participation in arts-based and academic-based extracurricular activities are also expected to be associated with lower levels of sexual activity.

2.10 Research Findings on Athletes and Non-Athletes Risk Behaviours

International studies have been conducted on the relationship between sport participation and high-risk behaviours among student athletes and student non-athletes have been conducted and this relationship is well documented (Nattiv & Puffer, 1991; Peretti-Watel *et al.*, 2004; Savage & Hilcomb, 1999; Kokotailo *et al.*, 1996). It is however important to note that research on the relationship between sport participation and high-risk behaviour have revealed ambiguous results. For example, several studies reported that young athletes maintain a healthier lifestyle than non-athletes (Naylor *et al.*, 2000; and Pate *et al.*, 2000). Contrary to this view, other researchers have concluded that athletes have a significantly higher proportion of high-risk lifestyle behavioural patterns such as engaging in a variety of health risks, including alcohol and drug use, tobacco use, sexual behaviour, antisocial behaviour and sensation seeking behaviours (Foreman *et al.*, 1995; Sun, *et al.*, 2000; Peretti-Watel *et al.*, 2004; Anderson, Albrecht, McKeag & Grew, 1991; Nattive & Puffer, 1991; Selby, Weinstein, & Bird, 1990; Zuckerman, 1979; Savage & Hilcomb, 1999; Miller *et al.*, 1998).

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It is alleged that these behaviours among athletes are worsened by the environment that provides constant presentation of opportunities for sex and popularity with women, and the behaviour of coaches and sponsors that instills a unique sense of entitlement in the young athletes. Thus the world of high performance sport is particularly a probable arena for the development of certain health risk behaviours (Benedict, 1998). There is also evidence of an increased frequency of sexually transmitted diseases among athlete students compared to non-athlete students. Peretti-Watel *et al.* (2004) and Nattiv and Puffer (1991) compared the health risk behaviours of university athletes against non-athletes. They found that athletes participated in a greater number of risk behaviours than their non-athlete counterparts. Their findings revealed that athletes consumed greater quantities of alcohol per sitting than did non-athletes. No significant differences were found between groups in terms of frequency of alcohol use, or use of drugs. In addition, Nattive and Puffer reported that athletes

were more likely than non-athletes to engage in a number of other risk behaviours. They were more likely to drive intoxicated and less likely to wear seat belts. Athletes were also more likely to engage in a variety of sexual risk-taking behaviours, including less frequent use of contraception and increased number of sexual partners, and had an increased frequency of sexually transmitted infections (STIs). These authors did not separate results between men and women, type of sporting activity, and level of participation. Therefore, possible gender, sport code and level of participation in risk-taking behaviours could not be ascertained.

Furthermore, Kokotailo *et al.* (1996) compared risk-taking health behaviours between genders, and varsity athletes and their non-athlete peers. Among the risk behaviours observed, they found that male athletes had significantly higher infrequent seatbelt use than non-athletes, men and women, athletes and non-athletes showed similar high rates of many types of risk behaviours, including driving under the influence of alcohol. In their study, Kokotailo *et al.* (1996) also found that all groups of students showed low rates of condom use for both penile-vaginal and penile-anal intercourse, and low barrier use for oral-genital intercourse. Over 19% of all students surveyed reported using alcohol or other drugs before their last sexual intercourse. Furthermore when risk-taking behaviour varied between genders, except for suicide and sexual behaviours, men showed a significantly greater prevalence for many risk behaviours when compared to women. Nonetheless, male athletes showed a number of increased risk behaviours when compared to their male non-athlete peers.

Similar findings were also observed in a study comparing student athletes and student non-athletes (Faurie *et al.,* 2004). In this study they found that both male and female student athletes reported significantly to have higher numbers of sexual partners than other students and within the group made up of athletes, highest levels of their performances predicted to be mostly of sexual partnership. That is, within a group of student athletes, the level achieved in competition had an effect on the reported number of sexual partners beyond the effects of all other explanatory variables. Faurie *et al.* (ibid.) calculated that, among male student athletes, high level

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competitors reported 2.43 +/_ 0.20 sexual partners during the past year versus a 2.11 ± 0.23 for low level competitors. They also found that competitive athletes of both sexes reported significantly more sexual partners than other students, and this effect was greater in males than in females. It was generally observed that non-athletes were likely to report one or no sexual partners compared to athlete respondents who reported multiple partners. Athlete students participating at a high level, reported more sexual partners than individuals competing at a low level. Their results indicated that athletes surpassed the non-athlete comparison group in their access to mates.

Miller *et al.* (1999) in their study of the effects of sports and sexual behaviour among Western New York adolescents, found that participation in sports and gender interaction influenced adolescents' sexual outcome. Male athletes showed a higher prevalence of risky behaviours than their male non-athlete counterparts and male athletes had more recent sexual partners than non-athletes. According to Miller *et al.*, for males, high school sports participation is associated with higher levels of sexual activity. These findings concur with the claim made by Benedict (1998) who argues that by the time the student athletes undergoes a transition from college to professional sports, they would have been conditioned, through a gradual reduction in accountability and social standards, to behave without fear of the consequences. Furthermore, other studies have also revealed that sexually active male collegiate student athletes experienced sexual intercourse for the first time at an early age. In their study, Foreman *et al.* (1995) calculated that 81.9% of sexually active student athletes had experienced a first sexual encounter (sexual intercourse) for the first time between 13 and 14 years of age as compared to 67.8% of non-athlete students. However, Kokatailo *et al.* (1996) argues that gender differences have not been considered in these studies.

Several authors have observed that sporting activities may play a role in providing opportunities for engaging in high-risk behaviours among athletes (Peretti-Watel *et al.*, 2004; Swift, 1991; Jones-Palm & Palm, 2004). Jones-Palm & Palm, (2004) argue

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that sports participation, particularly among males, can increase some harmful health behaviours. An explanation to these findings could be that the status afforded to athletes by society may aggravate the potentially harmful influence of sport in shaping cultural attitudes to athletes' risk behaviour. Confidence and entitlement are indicated as some of the factors that lead athletes to take more risks than non-athletes (Wallin, 2001; Davis, 1998; Benedict, 1998).

2.10.1 Different worlds of student athletes and student non-athletes

It has been argued that at both high school and college levels, there have been many reports and research studies suggesting the benefits of athletic participation, and that such participation leads to considerable differences between athletes and non-athletes. One such report was issued by the National Federation of State High School Association (NFHS) in 2002. This report summarized the existing research studies and stated that participation in high school athletics promotes such factors as lifelong lessons, teamwork, self-discipline, as well as physical and emotional development of the youth (NFHS, 2002). This report revealed that students who are athletes tend to have higher grade-point averages, better attendance records, lower drop-out rates, and fewer discipline problems than their non-athletic counterparts. According to NFHS, student-athletes learn self-discipline, build confidence, and develop skills that are necessary to handle competitive situations. This report cited similar results of such research studies as those of Stegman (2000), Silker and Quuirk (1997), Snyder and Spreitzer (1992) and Marsh (1992), who found that the participation in high school athletics, had a positive impact on academic achievement. Beyond academics, other studies have suggested that athletes tend to be more popular (Holland & Andre, 1995 and Serbu, 1997), have fewer behavioural problems (Whitley, 1999), exhibit greater leadership abilities and possess higher self-esteem (Dobosz & Beaty, 1999) than the non-athletes. Competitiveness has also differentiated athletes from non-athletes. Researchers have distinguished that competitiveness may be positively connected to achievement in athletics (Gill and Deter, 1988; Gill *et al.*, 1988; Helrnreich *et al.*, 1978).

However, not all research has found positive results for athletes. For example, Zaugg (1998) found that athletes tend to have discipline problems and those athletes in the revenue-producing sports (basketball and football) did not perform as well in the classroom as their non-athlete peers. A study by McNeal (1998) found that athletes may intimidate other students, and a report by Chandler *et al.* (1999) found that male athletes were more often involved in incidents of physical and sexual abuse than male non-athletes.

In terms of the saying "sports build character," the research results have mixed views. Some studies for example by Beller *et al.* (1997) and Rudd & Stoll (2004) found that participation in sports, especially team sports, builds social character (teamwork, loyalty, self-sacrifice) and there is little evidence that sports builds moral character (honesty, fairness, and responsibility) (Bredemeier & Shields, 1985). Furthermore, scholarships, alumni incentives, allowances, and leniency from administrators are common and expected in college/university sports, and therefore many male athletes feel entitled to take what they want, including sex, without being afraid of the consequences (Clay, 1991; Eskenazi, 1990; Koss and Gaines, 1993; Moore, 1991; Nelson, 1994; Warshaw, 1988). Male athletes may be used to having women flirt with them and may therefore tend to interpret such advances to mean that no woman is unattainable (Nelson, 1994; Warshaw, 1988; Benedict 1998).

Male athletes are trained to use force to resolve conflict. Breaking the rules is sometimes an approach for winning, and fouls are highly praised by fans if they bring the desired result against and over the opponent (Nelson, 1994 and Walsh, 1991). In a study by Young (1990), male student-athletes reported more criminal behaviour than non-athletes. This points them out as having some interest in taking part in risky activities. In addition, several studies have looked at athletes versus non-athletes in terms of their attitudes towards women. These suggest that male athletes tend to have more traditional attitudes towards women (Andre & Holland, 1995). Similar comparisons have also been made among athletes in different sporting disciplines. Caron *et al.* (1985) reported that male college athletes who participated in team

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sports, held more traditional attitudes toward women than athletes who participated in individual sports. On the other hand, Houseworth *et al.* (1989) found no differences in attitudes towards women between athletes that are involved in team sports and those that are involved in individual sports.

Research in the 1990s moved slightly further beyond the point of simply measuring men's attitudes towards women, and examined the link between men's attitudes and violence towards women (Epps *et al.*, 1993 and White *et al.*, 2001). Studies measuring men's hostility towards women (Malamun *et al.*, 1991), authoritarianism (Walker *et al.*, 1993), and acceptance of rape myths (Brannon, 1999), revealed that men with more traditional or sexist views of women were most likely to be sexually aggressive. However, some research findings focusing on male athletes have been rather contradictory in this area. Studies such as that of Koss and Gaines (1993) found a link between male athletes' attitudes toward women and higher levels of sexual aggression while Smith and Stewart (2003) did not find any association between athletes' attitudes toward women, and sexual aggression.

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Numerous studies have compared athletes and non-athletes on sex-role orientation, and suggest that male athletes have more masculine sex roles. Caron and Brightman, (1985) found that college male athletes, especially those participating in team sports had higher masculinity scores on the BSRI than non-athletes and those who participated in individual sports. This is consistent with many research studies that have found significant relationships between male athletic participation and traditional masculine sex-role orientation. For example, Fletcher and Dowell (1971) found out that high school athletes were significantly more dominant than non-athletes. Henry (1965) found that weightlifters, when compared to non-athletes, scored higher on masculinity, and Schendel (1965) also found athletes at each educational level scored higher on masculinity compared to non-athletes. In addition to this, Kirkcadly (1982) found that athletes who played in attacking positions were higher in dominance and aggression, traits associated with masculinity, than athletes who played in non-attacking positions. It is suggested that athletes' physical fitness

and masculinity enhances their attractiveness and hence creates situations whereby they attract partners, thereby making them different from their non-athlete peers **(**Kokotailo *et al.*, 1996).

2.10.2 Factors contributing to Athletes' risk behaviour

Despite the perception that athletes in general are more health-conscious than non-athletes, studies in the USA indicate that athletes are frequently involved in high-risk behaviours such as drug and alcohol abuse, sexual promiscuity, sex scandals and rape (Benedict, 1998 and Moulton *et al.*, 2000). Several researchers have identified a number of possible reasons contributing to high-risk behaviour among athletes that enhance the difference between them and non athletes. Among these are the issues of confidence and entitlement, which are highlighted as the most important (Benedict, 1998; Swift, 1991; Wallin, 2001; Davis, 1998). It is argued that an inflated sense of confidence is one of the factors that lead athletes to take more risks than non-athletes (Wallin, 2001). According to Wallin, (2001), confidence leads the way to a feeling of control and optimism. In addition, Benedict (1998) asserts that the influential stages of privilege presented to athletes begin in high school and progress during their collegiate years, and reach their peak as the athletes become professional/ elite. According to Benedict (1998), for those few gifted young men who reach the elite level of competition, many are inclined to be socially irresponsible. Benedict observes that, with the advancement of a young male athlete from high school to college and to professional sports, the athlete is increasingly relieved of tasks unrelated to his play and assured that he is exempted from the social norms.

It is alleged that by the time the athletically gifted students make their transition from college to professional sports, they would have been conditioned through a gradual reduction in accountability and social standards to behave without fear of the consequences (Benedict, 1997). Gradual reduction in accountability climaxes by the time the athlete is awarded a professional contract and that excellence in sport distinguishes otherwise equal individuals from each other. That is, excessive

notoriety at a young age could be a potential destruction to any maturing adolescent (Benedict, 1998). An athlete had this to say in a personal interview "…all this stuff starts at age 13, 14, 15" (Benedict, 1998). Benedict further argues that young athletes' transition from high school to university involves an extreme increase in the exposure of the athletes' talents. That is, they compete in front of thousands of fans and may even be aired on the television. Therefore, the enthusiasm for college young athletes pushes them to the apex of popularity on their campuses. They are worshipped by students, adored by the institution, pampered by the coaches and often overlooked by professors who tolerate their pseudo-student status. As the status of an athlete rises, his behavioural license expands and opportunities for deviant conduct also increase, especially in the area of promiscuity. One consequence of being a cultural icon is that professional athletes receive countless sexual offers from women who are attracted to their celebrity status (Benedict, 1998 and Swift, 1998).

In addition, Swift (1991) also observed that several characteristics and contextual factors for athletes appear to be associated with the type of sexual behaviours that in turn decrease or increase their risks to STDs or HIV. These include the constant presentation of opportunities for sex, popularity among women, the behaviours of coaches and sponsors that all instill a unique sense of entitlement in the young athletes. Therefore, the status afforded to athletes by society may exacerbate the potentially harmful influence of sport in shaping cultural attitudes that contribute to athlete's risk behaviour (Davis, 1998). Benedict (1998) further alluded that the concept of accountability for the athletes' off-field behaviour is weakened in college and finally fades away upon elevation to the professional level. According to Benedict, the professional level of athletes completes their escape from social responsibility. The fact that star athletes are held in such high esteem makes them frequently find themselves being worshipped by their adoring fans. A consequence of this adoration is that they are afforded a place in society, which at least and historically, has given them and the public a perception that they are above the standards that dictate the behaviour of others (Davis, 1998). It is argued that the

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exceptionally gifted athletes have their concept of superiority reinforced by the practices put in place when they are recruited at college (Benedict, 1998). According to Benedict (1998), athletes as early as their sophomore years in high school, experience the pursuit of college coaches, for example, they received recruitment letters from nationally renowned institutions, whose sports teams are on television regularly, and more importantly, letters come attached with the celebrity coach's name at the bottom. This practice instills complacency in many young children. Privileged status, when combined with other factors, produces a distorted or an unrealistic view of interpersonal relationships (Davis (1998). Furthermore, this privileged status may be more destructive than merely contributing to shaping multiple aspects, including social relationships, of the lives of individual athletes.

Sociologists argue that the conduct of the lives of athletes extend beyond their peers to influence the behaviour and attitudes of men, particularly the youth, in the general population. On the one hand, this influence could be expected given the enormous efforts devoted to packaging, exposing and promoting athletes for commercial purposes. Mass media produces images that heighten the visibility of athletes and increase the likelihood that their conduct will have a disproportionate impact on shaping cultural values (Davis, 1998; Benedict, 1998; Swift, 1991). Davis (1998) asserts that an undue emphasis on athletes as a primary source of demeaning sexual attitudes towards, for example, women can inappropriately shift the focus from institutional and structural contributors to such attitudes. Therefore, using the label that athletes are role models may inadequately describe the impact in shaping cultural attitudes because to do so may not only be theoretically unsound, but may risk diverting attention from addressing structural factors that result in athletes engaging in risk behaviours (Davis, 1998).

Basically, Benedict (1998) argues that a deviant sex culture, coupled with a celebrity-like mentality, creates a culture of entitlement among elite athletes. In Benedict's analysis of sports sub-culture from high school to the professional level, the author found that athletes are afforded preferential treatment. This in turn leads them to

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harbor feelings of being entitled to their desires. Coupled with this, athletes are not encouraged to take responsibility for matters off the playing field. Consequently, they perceive sexual encounters as "fringe benefits" to which they are entitled (Benedict, 1998). For example, during the playing season, athletes spend a significant time in different environments, such as hotels, theaters, nightclubs and bars. "Thus a curious reversal takes place in which the play world becomes real world and the real world becomes the play" (Benedict, 1998; pg 9). Benedict further states that one way of filling regular blocks of idle time available to athletes is to indulge in sex. Therefore, this "sense of entitlement" and the nature of athletes' subculture may fuel certain behaviours that break from the conventional norms and those of the home environment (Kokotailo *et al.,* 1996). And "… stardom by nature dulls adherence to social norms, luring athletes to ever indulge in illicit temptations…" (Benedict, 1998: pg. 215). Experts are of the opinion that the world of high performance sports is particularly a probable arena for the development of certain risky health behaviours (Aaron *et al.*, 1995 and Smith & Caldwell, 1994). Miller *et al.,* (1999), contend that sports strengthen boys' commitment to traditional masculine scripts.

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Despite the fact that studies indicate that athletes are more vulnerable to high-risk behaviours than non athletes, it is generally accepted that sport participation forms part of a healthier lifestyle. It is argued that the appeal of sport dwells in the suggestion that excelling at the game can improve one's chances in life (Benedict, 1998). Hence success in reducing the number of new infections among athletes may translate to success in reducing the number of new HIV infections among youth, given that an overwhelming majority of sports persons are themselves youth. Furthermore, because of their potential to reach celebrity status, athletes have a big role to play among the youth where in some cases they are considered as role models (Davis, 1998). These factors therefore, convince the young athletes that they are not subject to the same standards as their peers. Although there might be other factors, according to these studies, the prestige enjoyed by high-level athletes enhances their attractiveness and hence creates the observed differences**.**

2.11 Conclusion

This chapter provided information regarding young people's sexual behaviour and also data on the sexual behaviours of athletes and non-athletes. There seems to be a widespread agreement in the literature regarding the distinct influence of culture upon heterosexual functioning. Available literature revealed male students with heterosexual relationships to be characterized by a high incidence of sexual activity and evidently, research studies discussed in this chapter showed that sports amplifies traditional gender scripts for males. This was found to be driven by social and economic pressures, (especially with athletes) and a greater acceptance of premarital sex in society in general. Apart from the deviant sub-culture displayed by athletes, it has been revealed that sport as an institution offers the opportunity for them to discover who they are and what they can accomplish collectively. It was also evident from the literature review that the control, cultural and exchange models provide appropriate and directive theoretical frameworks for the current research study. In contrast to most models that are used to investigate young people sexual behaviours, these paradigms acknowledge the importance of adhering to social contexts and structured activities when studying this behaviour. These theories provided a basis for understanding young people's sexual behaviour patterns, and the proposed relation to high-risk sexual behaviours. They therefore support the goal of this research, which is to compare sexual behaviour patterns of male student athletes with those of male student non-athletes.

In the next chapter, the methodology that was used to explore male students' sexuality at the University of Botswana will be discussed.

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CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

University students have been found to be highly active sexually, which makes them a high-risk group. Research aimed at capturing their risky sexual behavioural patterns will therefore help to inform educational interventions. This chapter presents a discussion of the research methodology and design used for studying the sexual behaviours of three different groups of male university students. In addition, the chapter also focuses on the study population, sampling procedure, research instrument, pilot study, reliability and validity in quantitative research, research procedure, and data analysis procedures used in this study. As a point of departure, the ethical considerations regarding this study are explained.

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3.2 Research Design

On examining possible research methods, the main concern was to choose a methodology that would provide a framework within which the research hypotheses could be meaningfully addressed. The study adopted the quantitative research approach. Methodology choices used to conduct research can be either qualitative or quantitative, whereby the quantitative and qualitative approaches are considered opposite and mutually exclusive (Babbie & Mouton, 2001). According to McLean (1995), almost all studies focusing on the sexuality of young people in Africa have been single-method designs. While quantitative methodologies emphasize the necessity for objectivity, qualitative methodologies have embraced the idea and values for subjectivity. However, according to Guba and Lincoln (1990), quantitative and qualitative research methods complement each other in several ways, even though they are used in different ways.

The advantages and disadvantages of qualitative and quantitative methodologies continue to be an ongoing empirical research debate. The so-called “positivists”, in favour of the quantitative methodologies, emphasize that the researcher approaches the object of study in an unbiased, natural and objective manner, and subsequently deduces, derives and tests the research hypothesis. The “anti-positivists” on the other hand, in favour of qualitative methodologies, stress the importance of the contextual and subjective process of interpretation in research. The qualitative researcher is required to recognize the gaps that exist between the object of study and the subjective and inductive understanding and representation of this object by the researcher (Oskowitz & Meulenberg-Buskens, 1997). A full discussion of this debate however, lies outside of the scope of this study.

The current study was therefore designed within a quantitative research framework using a research survey design. Often the purpose of a survey is to determine how people feel about a particular issue. Surveys typically identify facts, opinions, attitudes, behavioural self-reports, and relationships among psychological variables and data, which are often collected through questionnaires, mailed surveys, telephone interviews or personal interviews (Reaves, 1992). The quantitative approach attempts to provide an accurate description of a particular situation or phenomenon and tries to identify the relationships and differences between variables. The survey method was used as a research design in this study because the variables of interest are not subject to direct manipulation. Christensen (2004) states that a survey is a widely used non-experimental research technique.

Furthermore, a quantitative research design provides a numeric description of trends and opinions in a population. By studying a sufficiently large sample of that population that is typically representative, one can infer the results to generalize and make claims for the whole population (Creswell 2003; Pilot & Hugler, 1987). Thus it helps to expand understanding of a population phenomenon through a sample. A survey design should reveal information on the prevalence, distribution and

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relationships of variables within populations. Questionnaires can provide individuals with an anonymous opportunity to record their sexual behaviours, especially when discussing sensitive or morally controversial issues. Furthermore, people are often more truthful when answering questions on paper than in one-on-one interview situations (Catania, Gibson, Chitwood & Coates, 1990; Dockrell & Joffee, 1992). Szuchman *et al.* (2000) asserts that the collection of data on the most accessible aspects of human sexuality only happens through an anonymous self-administered questionnaire. Thus, researchers seek to give respondents greater privacy when considering their responses, and greater flexibility in deciding and retrieving information when dealing with potentially sensitive and embarrassing questions. Furthermore, the advantage of a quantitative approach is the economy of the design and the rapid turnaround in data collection (Creswell, 2003). An anonymous, self-administered questionnaire was therefore selected as a suitable research instrument for quantitative analysis in the current study in order to obtain a reliable representation of the range and frequency of the sexual behaviour.

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However, several authors identify several weaknesses that accompany the use of survey methods. The argument is that questionnaire studies on sexual behaviour do not capture the social contexts that frame the sexual behaviour (Woodcok, Stenner & Ingham, 1992). Therefore, a lack of research focusing on the contextual and situational factors of sexual behaviour resulted from surveys which failed to sufficiently explore and capture individual knowledge (Eyre, 1997). Kerlinger (1992) also highlighted weaknesses such as low response, and incomplete response information. According to Dockrell and Joffee (1992), questionnaires only provide the product and not an understanding of the process. Quantitative approaches provide numerical information to questions such as, *who, what, when, and where*. Although figures and numbers provide useful quantitative information, they do not always provide adequate explanations or accounts, in particular to questions on *how, what, and why* certain things happen (Neuman, 2002).

A quantitative research approach was therefore used to collect data on the high-risk sexual behaviour patterns of male student elite athletes, male student recreational sport participants, and male student non-athletes at the University of Botswana, in order to make comparisons amongst the groups. The study was conducted in two phases, the pilot study and the main study.

3.3 The Study Sample

The sample was homogenous in that all the participants were English-speaking male students who were registered students at the University of Botswana. The students were from similar socio-cultural backgrounds. Participants in the present study comprised 235 registered male students of the University of Botswana. The participants were between the ages of 17 to 42, and the different age groups were represented in the sample population as follows:

Table 1: Age range of participants

Age range	**Number of participants**
17 – 19	56
20 – 22	71
23 – 25	59
26 – 28	13
29 – 31	7
32 – 33	6
34 – 36	13
37 – 39	6
40 – 42	4

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Most students were in their first year of study (81), followed by 80 students in their fourth year of study. There were also 30 second year students as well as 28 third year students. Only 16 of the participants were in their fifth year of study. Participants were registered in the following faculties: Science (56), Humanities (46), Education (45), Business Studies (38), Engineering and Technology (30) and Social Sciences (20).

3.4 Introduction of the Sample

A non-probability sampling technique was applied. In the current study, the researcher was targeting specific predefined male groups, the elite student athletes, student recreational sports participants and student non-athletes. A purposive sampling design in which the researcher handpicked the cases to be included in the sample, based on the judgment of typicality, was adopted in order to build up a sample satisfactory for the specific needs (Cohen, Manion & Morrison, 2000). This method of sampling is very useful in situations where one needs to reach a targeted sample quickly and when one is primarily sampling for proportionality. A purposive sample allows for options of the target population, but there are chances that one is likely to overweight the subgroups that are readily available in the population (Neuman, 2000). According to Neuman, purposive sampling is an acceptable kind of sampling for special situations. This method uses the judgment of an expert in selecting cases or selects cases with a specific purpose in mind. With purposive sampling, the researcher never knows whether the cases selected represent the population.

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Purposive sampling is appropriate when selecting unique cases that are especially informative, and for situations in which it is impossible to list all participants and randomly sample from a list. A purpose sample of 250 male students of the University of Botswana were traced and selected in different ways according to their

category characteristics. A list of all elite and recreational sports student participants was obtained from the sports director's office. The selected athletes were later followed to their respective sports grounds whilst non-athletes were selected from information obtained through their departments and mass lecture halls. The researcher also used subjective information, such as the frequent patronage of specific university facilities by athletes and non-athlete male students for identifying participants for inclusion in the research sample. The researcher further used simple random stratification methods to identify the prospective participants in order to locate as many cases as possible.

A stratified random sampling design was adopted in order for the sample to meet the requirements of this study. Stratified random sampling entails dividing the population into homogeneous groups based on certain characteristics, before the sample is randomly selected, each containing subjects of similar characteristics. A stratified random sample is therefore, a useful blend of randomization and categorization, thereby enabling a quantitative piece of research to be undertaken (Cohen, Manion & Morrison, 2000). With stratified randomization, a representative sample from a population provides the opportunity to generalize to a population. In the current research, participants were stratified as elite male student athletes; male student recreational sport participants and male student non-athletes. The sample was then randomly selected from this stratus. The individuals were also identified according to the criteria for inclusion. Criteria for inclusion were the following:

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- Agreeing to volunteer to participate in the study
- Being a male student registered with the University of Botswana
- Being at least 17 years of age.

The participants of this study comprised 250 male students, registered with the University of Botswana. The inclusion of an individual student did not affect the chances of including other students belonging to the same stratum. The participants were divided into three groups comprising 50 elite male athletes, 100 male

recreational sport participants (RSP), and 100 male non-athletes. As expected, there were fewer elite athlete participants to choose from because of the very nature of the group; hence they comprised a smaller group. Of the 250 questionnaires administered to participants in all the three categories of students, 15 questionnaires were placed into the box incomplete and rejected during sorting. A total number of 235 completed questionnaires were finally selected from 50 elite male athletes, 94 RSP, and 91 non-athletes.

3.5 Data Collection

The instrument used for data collection in this study was based on the University of the Western Cape's Child and Family Studies Survey on Student Lifestyles used by Rich (2004). The wording of the items was adapted, modified and revised for use in this study as suggested by Shrum *et al.* (1989). The questionnaire for this research study was based on topics and themes on demographics, sexual habits, sexual health, and issues on HIV/AIDS. In developing the questionnaire for this study, several items from previous sexual behaviour research measures such as those from the sexual behaviour and AIDS survey questionnaire by Spira, Bajos and the ACSF Group, (1994), and from the literature review and similar studies to measure high-risk sexual behaviour patterns such as those of Egan (2001), the Centers of Disease and Control and Prevention's (CDC, 2006) Youth Risk Behaviour Surveillance of 2005 were used. Some questions were adapted from the sexual behaviour and AIDS survey questionnaire developed by Spira *et al.* (1993) and a questionnaire assessing knowledge and the practice of safe sex amongst Rhodes University students (Simpson, 1996), based on studies by Diclemente, Boyer & Morales (1998) and DiClemente, Zorn & Temoshok, (1988).

The topics of the questionnaire used in this study include demographics and risky sexual behaviours such as multiple sexual partners, unprotected sex (no condom use and inconsistent condom use), types of sexual partners, early sexual debut, casual partners/sex with unfamiliar people, HIV status of partner and history of Sexually

Transmitted Infections (STIs). The questionnaire was divided into three sections. The first section contained questions that elicited demographic information. The second section included open and closed questions that elicited information to determine the range and frequencies of sexual behaviour and sexual habits. The third and last section included a table of open and closed questions regarding sexual health.

3.6 Pilot Study

The pilot study was conducted in order to assist in the construction of the questionnaire for the main study. Chadwick, Bahr and Albrecht, (1984) advocate that a pilot study be conducted in order to reveal problems related to design, ambiguity and where items on the questionnaire might not be suitable. A preliminary pilot study was carried out with a total of 15 male students (5 students for each category who qualified for the main research survey).

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The self-administered questionnaires which were provided in English were pilot tested in order to assess the clarity of the survey questionnaire, i.e. to establish how each question was to be phrased, to evaluate how respondents interpreted the meaning in the questions, to check if the range of response alternatives were sufficient, and to verify if the questions would be culturally acceptable and easily understood.

Appointments were made with the relevant University of Botswana administrators to discuss the research aims. The authorities offered the possibility of having the research conducted on students, in their premises, under conditions required to be met on the part by the researcher. One of the conditions required that the students would only be involved on a voluntary basis. The Botswana Ministry of Health and the University Governing Board also granted permission to conduct the study.

The researcher met the respondents during break-time and in some cases immediately after each lecture in their lecture halls. This was done in order to avoid interfering with classes as required by the university conditions. Other arrangements made were

to meet with the students around the library area, student centre, and in the case of athletes, at training halls and sports fields. The researcher administered the questionnaires to five students in each of the three male student categories. The researcher approached and administered questionnaires to the athletes during practice sessions in the evening. Non-athletes were met at the end of their mass lectures in the auditoriums with the help of their lecturers who kindly informed the students of my visit.

The researcher asked the students to identify any questions that were unclear, or any difficulties pertaining to the questionnaire. The feedback helped to identify the necessary layout and language adjustments to the questionnaire. The whole process of administering the questionnaire, including responding to the questionnaire, completing consent forms, and explaining the research, required approximately forty-five minutes. Questions 18 and 19 swapped positions. The heading of Section B, Sexual Habits, was simplified to Lifestyle. Question 41, was amended by adding a statement that gave respondents more options. The questionnaire was handed back to the pilot respondents after amendments were made, who indicated that they understood the questionnaire and had no additional problems. Fifteen students (15), above the age of seventeen participated in the pilot study, 5 from each category.

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3.7 Validity and Reliability

Both the reliability and validity of self-report measures in the study of health-related behaviour, and especially in sexuality or sexual behaviour studies have been examined, even though self-report measures remain the most popular measuring instrument in behavioural studies (Catania *et al.,* 1990; Kraft, 1993) Macleod, 1999; Okami & Pendleton, 1994; Westaby and Fishbein, 1996). Due to the privacy and moral issues surrounding direct observation of sexual behaviour, researchers are left with few options but to use self-report measures (Catania *et al.,* 1992).

To insure validity and reliability of the instrument, questions on the instrument of this study were based on similar questions in the Student Lifestyle Survey modified and used by Rich (2004), as well as the Centers of Disease and Control and Prevention's (CDC, 2006) Youth Risk Behaviour Surveillance of 2005. Berner, Kann, McManus, Kinchen, Sundberg, & Ross, (2002) found the 1999 version of the YRBSS to have test-retest reliability according to a study of 4 619 male and female high school students. Of particular interest to the present study, among others, are that items concerning sexual behaviour were found to have levels of reliability significantly higher than health related items. Some questions were adapted from the sexual behaviour and AIDS survey questionnaire developed by Spira *et al.*, (1993) as well as a questionnaire assessing knowledge and practice of safe sex amongst Rhodes University students (Simpson, 1996), based on studies by Diclemente, Boyer & Morales (1998) and DiClemente, Zorn & Temoshok (1988).

3.8 Research Procedure

An explanation of the stages involved in the research, and what they would entail for the participants, was discussed and submitted to the Ministry of Health, the University of Botswana, and the students. The purpose of the study was clearly explained to potential participants in order for them to make informed decisions when deciding whether to participate or not in the study. The questionnaire was used to screen participants, who were selected based on the inclusion criteria of being voluntary and willing to participate, being male students of at least 17 years of age at the University of Botswana, and being able to understand and speak in English competently.

During all stages of the research, the researcher emphasized that respondents were not required to provide their names at any stage. Anonymity was guaranteed, and respondents were assured that specific measures would be implemented so as to ensure confidentiality. The use of a numbered coding identification system on the questionnaire was explained to the student respondents. The secrecy of the venue, the

privacy and involvement of only the researcher in the whole process of administering, supervising the completion, and subsequent handling and storage of questionnaires was clearly explained to participants. The respondents were informed that no other parties would be involved in the questionnaire survey, including other students, lecturers, and university authorities.

For non-athletes, the questionnaire was given at their respective lecture halls at the end of lectures and completed by students in the presence of the researcher. Athletes were followed to their respective sports grounds and gym halls. Lecturers and coaches were not allowed into the classroom or sports grounds during the administration of the questionnaire. The researcher explained the purpose of the research to the students and explained the consent form and the questionnaire. The respondents signed the consent forms and completed the questionnaire. The questionnaires were handed out to all students present in the venue so as not to single out or draw attention to anyone who did not want to complete the questionnaire. Completion of the questionnaire, however, remained voluntary and it was explained to the participants that they did not have to complete the questionnaire handed out to them if they did not feel comfortable. The students were allowed to ask questions throughout the administration of the questionnaire but were asked to work independently and silently and to put their hand up if they required assistance.

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All the respondents were instructed to personally place their questionnaires into the collection box provided after completion, so that the researcher would not be able to trace and identify the individuals. The respondents were informed of their right to discontinue participation at any stage of the research should they have any reason to. In addition, respondents would not be required to explain their decision to discontinue participation. Of the 250 questionnaires handed to all the three categories of students, 15 questionnaires were placed into the box incomplete. The boxes were immediately taken to the researcher's office, where they were locked up in a cupboard not accessible to any other person. Participants were assured that neither

lecturers nor other students would have access to the questionnaires, or any information imparted by participants during the course of the research.

Finally, the credentials of the researcher were given to the research participants. The research participants were informed that information gained during the research could be used for publication but their names would remain anonymous. The participants were informed of their privilege of access to the final research document and possible publications if they so wished. The Constitution of the Government of Botswana requires permission for conducting this kind of research. Permission was obtained from the Ministry of Health Ethics Committee (MHEC) (Appendix D) and the University of Botswana Institutional Review Board (UB IRB) Governing Bodies (Appendix C).

The researcher realized during the early stages that recruitment of participants for this study would be problematic. Not only would the students have to be willing to discuss their sexual behaviour without fear of exposure to peers, lecturers and parents, but permission to include students in this study would have to be gained. The students' informed consent form assisted in combating fears surrounding confidentiality and therefore, assisted in the recruitment process for the study (Appendix E).The chosen research method was the most appropriate for the research objectives, taking into account the available resources.

3.9 Data Analysis

Data capturing for this study was performed in a special mode in order to identify the three groups of elite athletes, recreational sports participants and non-athletes. In the questionnaire, for analysis purposes, question 13 and 15 were used to distinguish the groups. That is, all respondents who answered "Yes" to question 13 fell under the athletes group. And those who said "No" to this question were grouped as non-athletes. Furthermore, question 15 further divided the athletes group into two groups, (who answered "Yes" to question 13). For question 15, those who responded to any

of the alternatives (International; National; Varsity and Regional) were distinguished as elite athletes. Those who responded to any of the two alternatives of "Club level and/or Social/Informal" were identified as recreational sports participants. Therefore after question 13 and 15, three groups of students were created. Appendix A shows the questionnaire for this study.

Questionnaire data was quantified to determine the sexual behaviour patterns of male students. The computer-based Statistical Package for the Social Sciences (SPSS) version 14.0 was used to process data. The statistical techniques included descriptive statistics, cross-tabulation and chi-square tests, and in some instances t-tests were performed. The information yielded was descriptive in nature, and frequencies, central values and measures of variance were obtained from the analysis. All procedures were performed at 0.05 level of statistical significance with 95% confidence intervals. Participants' responses were categorized and coded and examined in the form of frequencies of occurrences and percentages. Descriptive analyses were provided. For some research questions however, cross-tabulations were employed in addition to descriptive statistics. Where relevant, the chi-square was also used in conjunction with the cross-tabulations.

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The chi-square test for independence was used to analyze the data as it is an extremely accurate technique for relatively large samples (Cornett & Beckner, 1975; Nicholas, 1993). The Chi-square test is based on notions of probability and is used to determine if there are any significant differences between the expected statistically generated results, and the actual results, at a specified level of statistical significance (Cohen, Manion & Morrison, 2000). The chi-square test is non-parametric and therefore, not based on assumptions of any kind. The cross-tabulations were used to answer the question as to whether there is a relationship between more than one variable. It should be noted that the test of statistical significance allows a researcher to discover how much the observed and expected frequencies differ from one another (Pretorius, 1995 cited in Jooste, 2003). The open-ended questions that presented more complex and non-uniform responses were content analysed, divided into categories,

and coded. A University of the Western Cape Master's student conducted a random spot check of the coding.

3.10 Ethical Considerations

Research is founded on the willing cooperation of the public, and the organizations should feel confident that the research is conducted in an honest and objective manner without intention to harm the participants (Eichler, 1998). Due to the sensitive and controversial nature of sexuality, and the fact that the research sample was of human subjects, ethical considerations were of the utmost importance in this study. Morse and Richards (2002: 205) identify the following ethical principles regarding participants' rights:

- The right to be informed of the purpose of the study as well as what is expected during the research process. The amount of participation and time required. What information will be obtained and who will have access to it. Finally what the information will be used for.
- The right to confidentiality and anonymity.
- The right to ask questions of the researcher.
- The right to refuse to answer questions the researcher may ask, without negative ramifications.
- The right to withdraw from the study at any time without negative ramifications.

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The study adhered to these ethical specifications. The ethicality of this study was further ensured by obtaining consent to conduct research on human subjects from the Botswana Government through the Ministry of Health Ethics Committee (MHEC) and the University of Botswana Institutional Review Board (UB IRB). These two bodies assessed the research proposal, methodology design and measuring instruments and granted permission for the research to be conducted (Appendix A).

Permission was granted on condition that an informed consent form be read and signed by each participant. The informed consent form specified conditions to which the researcher would adhere (Appendix C). The goal of this research had to be explained and understood by the participants. I met the participants assembled in a hall and spoke to them of the purpose of the study. The nature, goals and aims of the research were explained verbally and on paper to the students on first meeting them, and prior to their consent to participate (Appendix E), on what would be expected from participants. The letter was distributed to all participants and was read through with participants who were capable of reading and understanding English. Participants were given time to ask questions. The letter informed participants of the amount of participation and time required. The letter further informed participants that the research formed part of a post-graduate study at the Department of Sports and Recreation at the University of the Western Cape. Participants were made aware that findings would be presented in the form of a paper handed in for examination. An explanation was clearly made that the study was not solicited or being conducted for their university or lecturers, that the University of the Western Cape was independent and not associated with their university, and that the researcher and not the university authorities had specifically chosen their university for the study.

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In addition, the researcher explained that the purpose of the research was not to identify individuals experiencing some form of problems, but rather to improve understanding of the sexual behaviours of all male students, which most previous researchers had rarely examined. Participants were further informed that there was a possibility of the material being used in the future to positively impact on strategies that are aimed at making sports and other organizations a safer environment within the Botswana context. Confidentiality and anonymity were guaranteed. To further ensure privacy, the participants were assured that after completion of the questionnaire, the questionnaire would be dropped into a ballot box and collected by the researcher. Lectures and authorities were not involved in the administering of the questionnaire. The University of Botswana kindly provided the researcher with an

office for keeping questionnaires and any other administrative work. The students made it clear that they were worried about their confidentiality and did not want their peers or lecturers involved in any way.

The participants were then requested to sign the consent form indicating that they had agreed to participate in the study. Informed consent was obtained from all participants before the commencement of the completion of the questionnaire. The study posed no risk to participants physically. Due to the sensitive nature and complexities of sexuality and HIV/AIDS, the services of the University Counseling Department was made available to participants. None of the participants requested counseling or debriefing following the completion of the questionnaire. Participants were informed that they had the right to withdraw from the study at any time without negative ramifications.

The participants completed the questionnaire by themselves, though permission was given to ask questions should they not understand a question.

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3.11 Chapter Summary

Although survey research and self-report measures, such as the questionnaire used in this study, are open to problems of measurement error and participation bias, the overall conclusion is that both the validity and reliability of self-report questionnaires can be considered acceptable if the questionnaire is carefully designed and administered (Kraft, 1993). As discussed above, I implemented steps both in the design phase and during the administration of the questionnaire to address these issues. Results, however, should still be interpreted with due consideration of the methodological issues. Despite the fact that there were very few guidelines for the design of the questionnaire for this study and that both the reliability and the validity of this questionnaire had not been assessed, the questionnaire could help to provide an indication or general description of the sexual behaviour of male students at the University of Botswana. In summary, this chapter has presented the research design

of the study. Various research methodologies were explored displaying why a quantitative research paradigm was more suitable for the study. Ethical issues were discussed and the research process explained in detail. The trustworthiness of the study was demonstrated by looking at the quality and rigour of the research process. Finally key criticisms of survey research as they pertained to the present study were discussed.

In Chapter Four the results of the questionnaires are presented.

CHAPTER 4

PRESENTATION OF RESULTS

4.0 Introduction

In this chapter the results of the study will be presented. It is important to note that I selected those results that I believed were most pertinent to the study from the extensive quantitative data that was generated from the questionnaire, The demographic measures listed in the questionnaire which were used for analysis were: age; living arrangement; year / level of study; type of enrolment (full time/part time); faculty they are enrolled in; sexual preference; permanent residence and citizenship of respondents. Descriptive results from determinants of high-risk sexual behaviour (HRSB) such as multiple partners; condom use; respondent' history of STIs; respondents' knowledge of partner's sexual experience; casual sexual partners; respondents' current sexual life, as well as their first sexual debut, are presented. The results for each relevant item are presented separately and are expressed in terms of frequencies and percentages, in some instances, the results are expressed in the form of tables and charts. Cross-tabulations and chi-square tests that were performed are also reported.

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As mentioned in Chapter Three, the Chi-square test was used at a 0.05 level, to test for statistical significance. The results aim to answer the hypothesis of whether there are any significant differences in sexual behaviour patterns between:

1) Athletes and non-athletes
2) Elite athletes and non-athletes
3) Elite athletes and Recreational Sports Participants (RSP)
4) RSP and non-athletes at the University of Botswana

4.1 Characteristics of the Study Sample

A total number of 235 respondents participated in this study. Of these participants, 94 (40%) were Recreational Sports Participants (RSP), 91(38.7%) were non-athletes and 50(21.3%) were elite athletes (Figure 1). They were all male students between the ages 17 to 42 years at the University of Botswana. Most respondents, 71(30.2%), were of age range 20 to 22. The smallest age range of respondents was the 40 to 42 age group (Figure 4). The majority, 232 (98.7%) of the respondents were studying fulltime (Figure 2). Most of the respondents (81 or 34.5%) were in their first year of study (Figure 6). In terms of faculty, the majority of the participants (56 or 23.8%) came from the Faculty of Science, followed by those from the Faculty of Humanities (46 or 19.6%). The least represented faculty was the Faculty of Social Science with only 20 (8.5%) participants (Figure 5). Most of the respondents (77 or 32.8%) lived in campus residences (Figure 7). Most respondents (97%) reported that they are heterosexual, and only one respondent did not indicate his sexual preference (Figure 4.3). A high proportion of the respondents (75 or 31.9%) were from Central District; with the next largest portion (33 or 14.0%) being from the South West District (Figure 8). The majority (96.7%) of the respondents were Botswana citizens, while only 4.3% were not citizens of Botswana (Figure 9).

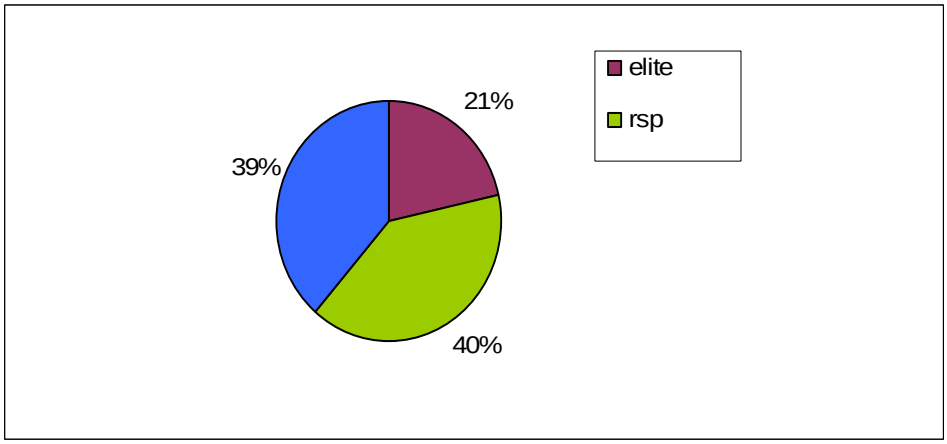

Figure 1 Type of sample of the study

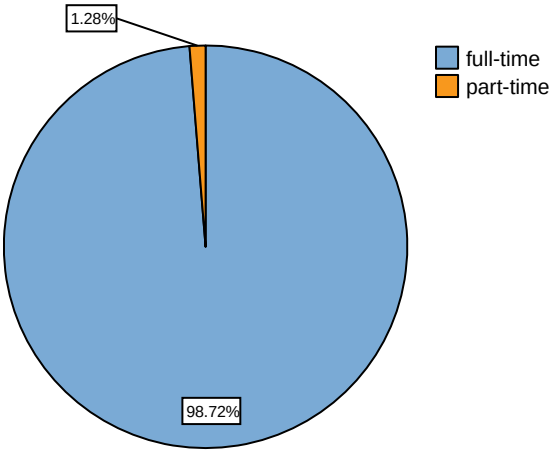

Figure 2 Respondents differentiated on the basis of enrollment

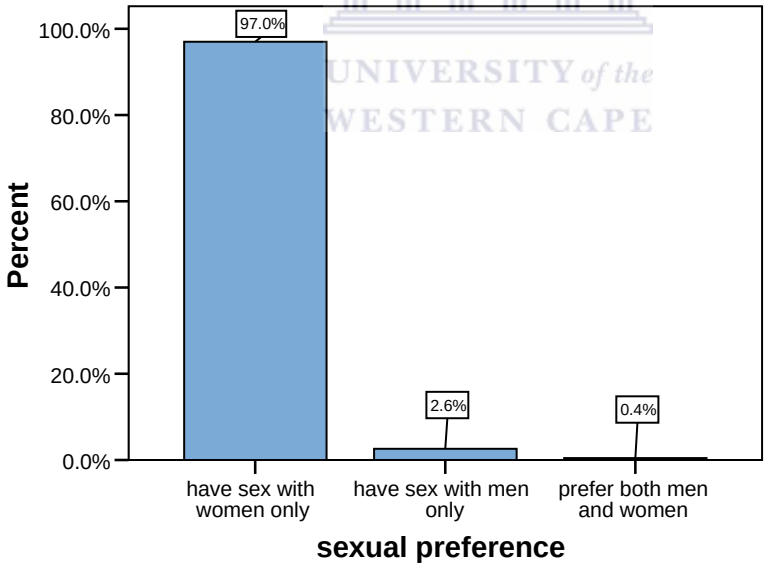

Figure 3 The sample differed on the basis of sexual preference

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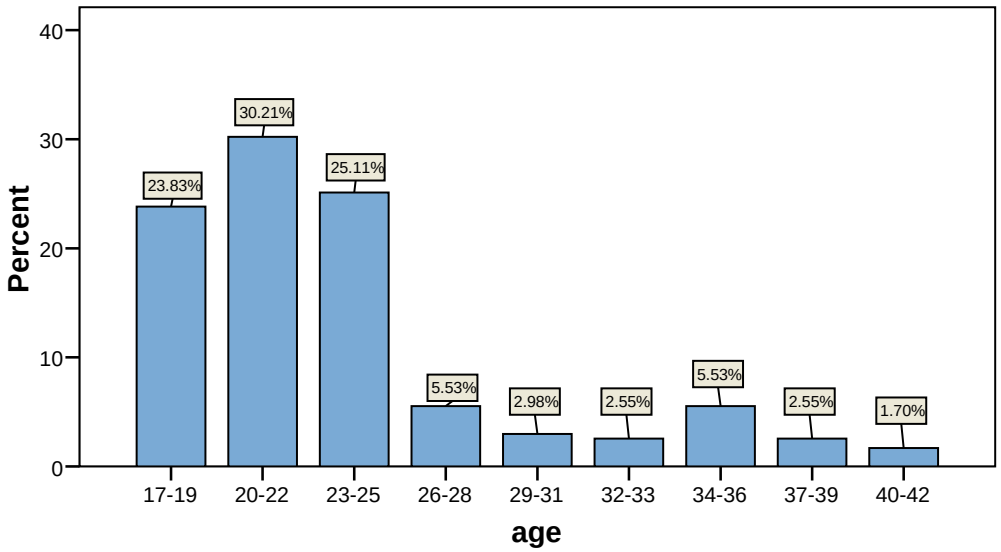

Figure 4 Respondents differentiated on the basis of age

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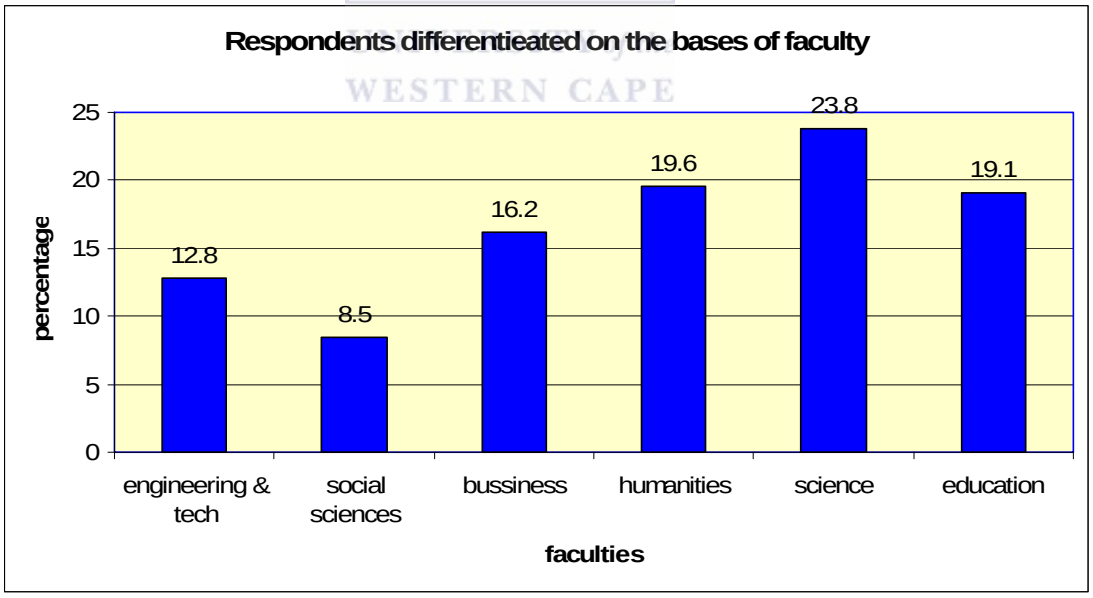

Figure 5 Respondents differentiated on the basis of faculty

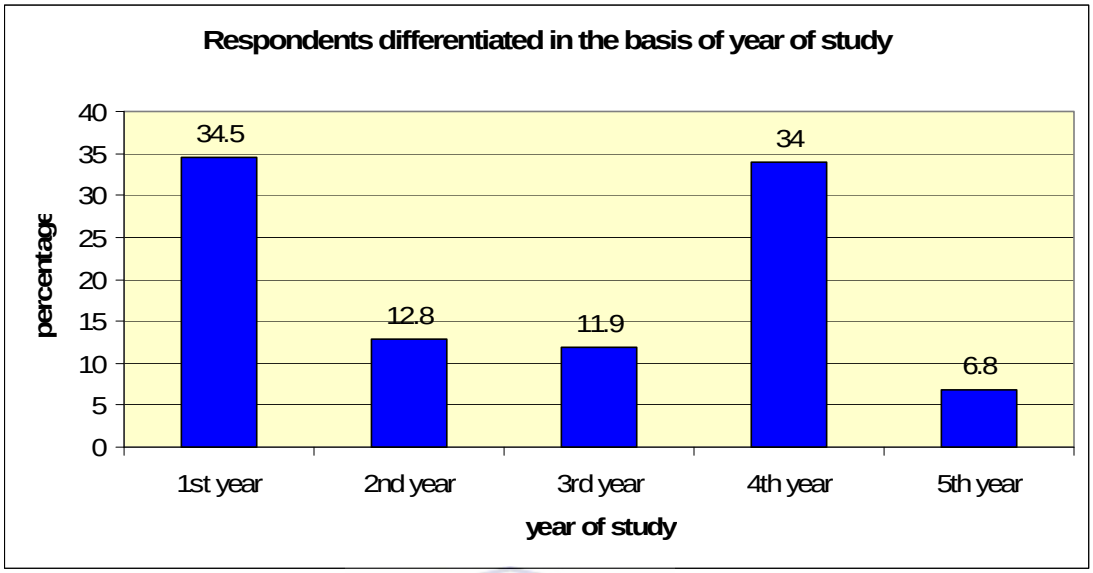

Figure 6 Respondents differentiated on the basis of year of study

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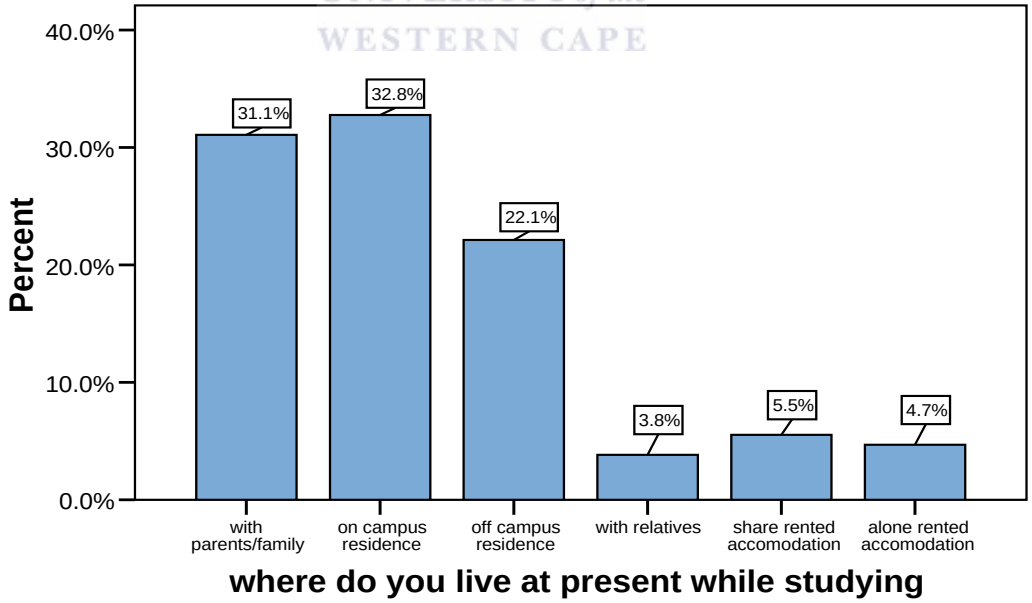

Figure 7 Respondents differentiated on the basis of living arrangements

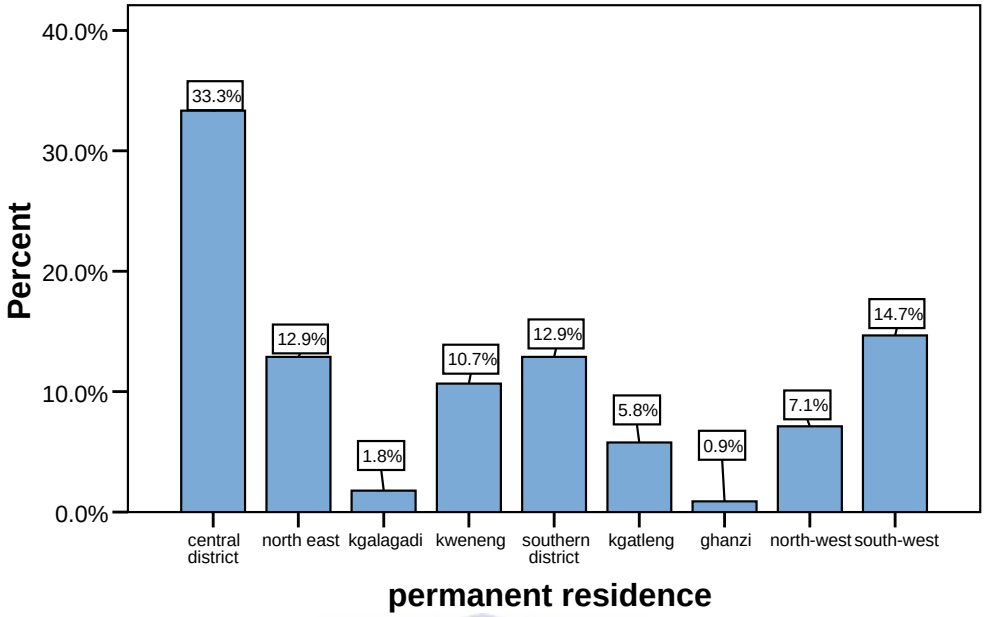

Figure 8 Respondents differentiated on the basis of permanent residence

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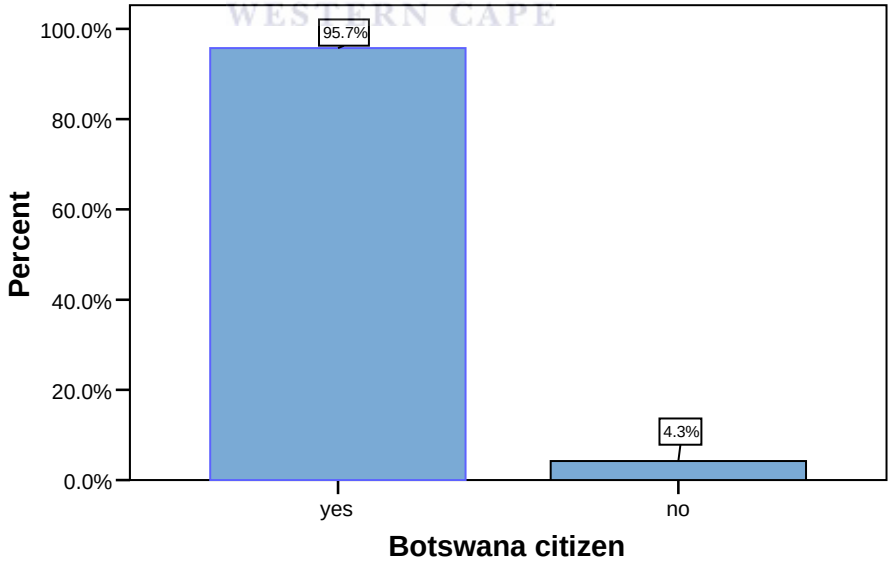

Figure 9 Respondents differed on the basis of citizenship

4.2 Cross Tabulations

The analyses of the data generated from the study are subdivided into four (4) major sections according to hypotheses being investigated. The first section (hypothesis 1), examines the possible difference in high-risk sexual behaviour between athletes and non-athletes. Section 2 (hypothesis 2) contains result of possible differences in high-risk sexual behaviour of elite athletes and non-athletes. The third section (hypothesis 3) contains results from comparative analyses of high-risk sexual behaviour of recreational sports participants (RSP) and elite athletes. The fourth and final section (hypothesis 4) contains results of high-risk sexual behaviour between RSP and non-athletes.

4.2.1 Determinants of High-risk Sexual Behaviour (HRSB)

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Seven determinants of HRSB are identified as follows:

1. Multiple partners;
2. Condom use;
3. Respondent's history of sexually transmitted infections (STIs);
4. Respondent's age of first sexual intercourse;
5. Respondent's partner's sexual life;
6. Respondent's current sexual life;
7. Casual sexual partners.

The analyses of the determinants of HRSB relative to male student groups are summarized in subsequent sections. Significance in all analyses was fixed at 5% (0.05). (Table 2 below gives the composition of each determinant of HRSB).

Table 2 Compositions **of various determinants of high-risk sexual behaviour.**

Determinant of HRSB	**Indicator of Sexual Behaviour**
Multiple partners	Number of sexual partners you had in last 12 months. *(Question 31)* Number of current sexual partners. *(Question 38)* Number of sexual partners you had sex with in the last 12 months. *(Question 40)*
Condom use	Regularity of condom use with primary partner in last 12 months. *(Question 27)* Did condom ever break? *(Question 28)* Will use condom in future. *(Question 37)*
History of STIs	Ever diagnosed with STIs. *(Question 45)* When was the last time you had a STI? *(Question 49)*
Partner's sex life	Description of primary partner's sexual life. *(Question 30)* Were any of your partners HIV positive? *(Question 42)*
Current sexual life	Have you decreased number of sexual partners in last 12 months? *(Question 43)* Did you have sexual intercourse during last 12 months? *(Question 22)*
Casual sexual partners	Have you ever had sex with someone you had just met? *(Question 39)*
First sexual debut	How old were you when you had sexual intercourse the first time? *(Question 20)*

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4.3 Section A: High-risk Sexual Behaviour among athletes and non-athletes (HRSB)

In comparing groups of male students at the University of Botswana, there is no significant difference in risky sexual behaviour between male students who do not participate in sports, and male students who do. To test this first hypothesis, two variables were chosen (indicators) from the survey data, "Do you play sports?" against each of the indicators of sexual behaviour in Table 2, and Chi-square tests of cross-tabulations were performed to analyse the determinants of HRSB. The variable, "Do you play sports?" records respondent's category. A "Yes" and "No" responses to

the question were used to distinguish between "Athletes" and "Non-athletes" respectively.

Table 3 Chi-square test results for cross tabulations

Determinants of HRSB	Indicators of Sexual behaviour	N	X^2	*df*	P	Conclusion
Multiple partners	Number of sexual partners you had in last 12 months	233	12.529	2	0.002	S
	Number of current sexual partners	235	14.208	2	0.001	S
	Number of sexual partners you had sex with in the last 12 months	235	7.199	2	0.027	S
Condom use	Regularity of condom use with primary partner in last 12 months	229	7.860	3	0.049	S
	Did condom ever break?	219	1.826	1	0.177	NS
	Will use condom in future	235	1.117	1	0.290	NS
History of STIs	Ever diagnosed with STIs	235	0.640	2	0.726	NS
	When was the last time you had STI?	235	4.817	4	0.307	NS
Partner sex life	Description of primary partner's sexual life	226	1.742	2	0.419	NS
	Were any of your partners HIV positive?	228	3.085	3	0.379	NS
Current sexual life	Have you decreased number of sexual partners in last 12 months?	226	0.018	1	0.894	NS
	Did you have sexual intercourse during last 12 months?	234	4.190	1	0.041	S
Casual sexual partners	Have you ever had sex with someone you had just met?	235	2.324	1	0.127	NS
First sexual debut	How old were you when you had sexual intercourse the first time?	225	13.168	2	0.001	S

Table 3: Chi-square test results for cross-tabulations of the indicator "Do you play sports?" and each of the indicators of sexual behaviour. Significance (S) and non-significance (NS) of relationships is at 5% (0.05). Degrees of freedom (df)

4.3.1 Multiple Partners

To test the hypothesis that there is no significant difference in sexual behaviour between male students who do not participate in sports and male students who do participate in sports with regard to the determinant of high-risk sexual behaviour "multiple partners", three indicators of sexual behaviour (see table 3 above) were cross-tabulated with two groups of male students (Athletes and Non-athletes).

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For the indicator of sexual behaviour, the number of sexual partners the respondents had had sex with in the last 12 months, the results indicate that over half of the respondents, 125 (53.6%), reported having had more than one sexual partner in the last 12 months, 62.5% (90) athletes and 39.3% (35) non-athletes (Table 4). The number of sexual partners respondents have had in the last 12 months was significantly associated with student category ("Do you play sports?"), p = 0.002. The results showed that there is a significant difference between the group of male athletes and male non-athletes with regard to the number of sexual partners the respondents have had in the last 12 months (chi-square= 12.53; p = 0.002) (Table 3).

Table 4 Respondents' number of sexual partners in last 12 months

Number of sexual partners	**Athletes**		**Non-athletes**		**Total**	
	number	**%**	**Number**	**%**	**number**	**%**
None	30	20.8	34	38.2	64	27.5
One	24	16.7	20	22.5	44	18.9
More than one	90	62.5	35	39.3	125	53.6
Total	**144**	**100**	**89**	**100**	**233**	**100**

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With reference to the number of current sexual partners, 81 (34.5%), of respondents reported having more than one. 63 (77.8%) were athletes and 18 (19.8%) were non-athletes (Table 5). The relationship between the groups, (Athletes and Non-athletes), and the number of sexual partners the respondent had is significant (chi-square= 14.21; p = 0.001 (Table 3).

Table 5 Respondents' number of current sexual partners

Number of current sexual partners	**Athletes**		**Non-athletes**		**Total**	
	number	**%**	**number**	**%**	**Number**	**%**
None	29	20.1	27	29.7	56	23.8
One	52	36.1	46	50.5	98	41.7
More than one	63	43.8	18	19.8	81	34.5
Total	**144**	**100**	**91**	**100**	**235**	**100**

Furthermore, as many as 135 (57.4%) of the respondents reported having had sexual intercourse with more than one sexual partners in the last 12 months. Ninety-two (63.9%) were athletes and 43 (47.3%) were non-athletes (Table 6). The results showed that a statistically significant difference exists between the groups male athletes and male on-athletes with reference to number of partners they had sexual intercourse with in the last 12 months (chi-square = 7.2; p = 0.027 (Table 3).

Table 6 Number of partners respondents had sex with in last 12 months

Sexual partners in last 12 months	**Athletes**		**Non-athletes**		**Total**	
	number	**%**	**number**	**%**	**Number**	**%**
None	14	9.7	17	18.7	31	13.2
One	38	26.4	31	34.1	69	29.4
More than one	92	63.9	43	47.3	135	57.4
Total	**144**	**100**	**91**	**100**	**235**	**100**

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4.3.2 Respondent's Use of Condoms

Inconsistent use of the condoms with the primary partner was reported by 55 (24.1%) of the respondents. They reportedly "Never" used the condoms, used them "More than half the time" or "Less than half the time". Of these, 31 % were athletes and 24% were non-athletes (Table 7). Student category and regularity of condom use with primary partner in the last year gave a statistically significant difference (chi-square = 7.86; p = 0.049) (Table 3).

Table 7 Condom use with primary partner during the last 12 months

Regularity of condom use	**Athletes**		**Non-athletes**		**Total**	
	number	**%**	**number**	**%**	**number**	**%**
Always	111	78.2	63	72.4	174	76.0
More than half times	15	10.6	17	19.5	32	14.0
Less than half times	7	4.9	0	0	7	3.1
Never	9	6.3	7	8.0	16	7.0
Total	**142**	**100**	**87**	**100**	**229**	**100**

However, the other two indicators of the HRSB determinant, condom use viz. “Did condom break?” and “Will you use condom in future?” indicated that there was no statistical significant difference between athletes and non-athletes (chi-square = 1.83; p = 0.177 and chi-square = 1.12; p = 0.290 (Table 3), respectively. Furthermore, sixty-four (56.2%) respondents reportedly had a condom break when using it, and this occurred more prominently among athletes 45 (32.4%) than non-athletes 19 (23.8%) as shown in appendix B (Table 2). Nine (3.8%) respondents reported that they will not use condoms in future sexual intercourse, 5 (5.5%) non-athletes and 4 (2.8%) athletes (Table 8).

Table 8 Respondents’ future condom use

Future condom use	**Athletes**		**Non-athletes**		**Total**	
	number	**%**	**number**	**%**	**number**	**%**
Yes	124	86.1	68	75.6	192	82.1
No	20	13.9	22	24.4	42	17.9
Total	**144**	**100**	**90**	**100**	**234**	**100**

Although not all indicators of condom use are statistically significant, numerical summaries show that athletes are more inconsistent in using condoms during sexual intercourse.

4.3.3 Respondent’s History of STI

As many as 64 (27.2%) respondents reported being diagnosed with one STI in the last two years, 39 (27.1%) athletes and 25 (27.5%) non-athletes, while 11 (4.7%) reportedly had more than one STI in the same period, 8 (5.6%) athletes and 3 (3.3%) non-athletes. (see Table 9 for details). Statistically, results suggest that there was no difference in the number of STIs in the last two years between athletes and non-athletes (chi-square = p = 0.726 (Table 3).

Table 9 Respondents diagnosed with STIs in the last 2 years

Ever diagnosed with STI	Athletes		Non-athletes		Total	
	Number	**%**	**number**	**%**	**Number**	**%**
No STI	97	67.4	63	69.2	160	68.1
One STI	39	27.1	25	27.5	64	27.2
More than one STIs	8	5.6	3	3.3	11	4.7
Total	**144**	**100**	**93**	**100**	**235**	**100**

Seventy-five (31.8%) of the respondents reportedly had an STI "last week" or "last month" or "a year ago" or "over a year ago". Forty-seven (32.6%) were athletes and 28 (30.8%) non-athletes (Appendix B - Table 3**)**. The difference between athletes and non-athletes was non-significant (chi- square = 4.82; p = 0.307 (Table 3). However, athletes have a richer history of STIs than non-athletes descriptively.

4.3.4 Partner's sex life

The two indicators of the respondent's partner's sex life gave non-significant differences between athletes and non-athletes (Table 3). However, of the 33 (14.6%) respondents who reportedly had primary sexual partners who also had sex with other sexual partners, 24 (16.9%) were athletes and 9 (10.7%) non-athletes. One hundred and thirty one (58.0%) reported being unaware of other sexual partners of their primary partners, 79 (55.6%) were athletes and 52 (61.9%) non-athletes. Appendix B (Table 4) shows the number of respondents for each response.

Two (0.9%) reported having had sexual intercourse with HIV positive partners, an athlete and a non-athlete. One hundred and fifty-two (66.7%) had no knowledge of their partner's HIV status, 92 (64.3%) were athletes and 60 (70.6%) non-athletes. Twelve (5.3%) of the respondents preferred not to answer the question, 6 (4.2%) were athletes and 6 (7.1%) non-athletes. Appendix B - Table 5 shows the distribution of responses by the students.

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Descriptively, more athletes engage in sexual risk-taking than non-athletes, although the association between indicators of sexual risk-taking and student category gave statistically non-significant results (Table 3).

4.3.5 Respondent's Current Sexual Life

As many as 145 (64.2%) of the respondents decreased the number of sexual partners they have had in the last 12 months, while 81 (35.8%) did not. Specifically, 90 (63.8%) athletes and 55 (64.7%) non-athletes, decreased their number of sexual partners while 51 (36.2%) athletes and 30 (35.3%) non-athletes, did not (see Appendix B - Table 6**)**. Statistically, there was no significant difference between athletes and non-athletes and the indicator "Decreased number of sexual partners in last 12 months?" chi-square = 0.018; p = 0.894 (Table 3).

One hundred and ninety two (82.1%) respondents had had sexual intercourse in the last 12 months, 124 (86.1%) were athletes and 68 (75.6%) non-athletes, whereas of the 42 (17.9%) who had not, 20 (13.9%), were athletes and 22 (24.4%), were non-athletes (see Table 10). The difference between student category and the indicator, "Did you have sexual intercourse in the last 12 months?" was significant,
Chi-square = 4.19, P = 0.041(Table 3).

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Table 10 Respondents who had sexual intercourse during last 12 months

Sexual intercourse in last 12 months	**Athletes**		**Non-athletes**		**Total**	
	number	**%**	**number**	**%**	**Number**	**%**
Yes	124	86.1	68	75.6	192	82.1
No	20	13.9	22	24.4	42	17.9
Total	**144**	**100**	**90**	**100**	**234**	**100**

Generally, athletes have a riskier current sexual life than Non-athletes.

4.3.6 Casual Sexual Partnership

One hundred and five (44.7%) respondents reported having had sexual intercourse with partners they had just met, 70 (48.6%) athletes and 35 (38.5%) non-athletes (see Table 11).

Table 11 Respondents had sex with casual partners

Sex with casual partners	Athletes		Non-athletes		Total	
	number	%	number	%	Number	%
Yes	70	48.6	35	38.5	105	44.7
No	74	51.4	56	61.5	130	55.3
Total	**144**	**100**	**91**	**100**	**235**	**100**

The difference between indicator of casual sexual partnership and student category was non-significant, p = 0.127 (Table 3). Descriptively, more athletes had intercourse with casual partners than Non-athletes.

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4.3.7 Respondent's First Sexual Debut

Ninety-eight (43.6%) respondents reportedly first had sexual intercourse when they were aged between 10 and15 years, of whom 73 (51.8%) were athletes and 25 (29.8%) non-athletes. A hundred and ten (48.9%) had sex for the first time when they were aged between 16 to 19 years, of whom 62 (44.0%) were athletes and 48 (57.1%) non-athletes; while the first sexual intercourse of 17 (7.6%) respondents was between the age of 20 to 23 years, 6 (4.3%) of whom were athletes and 11 (13.1%) non-athletes (see Figure 10). The difference between age groups and student category was significant, p = 0.001 (Table 3).

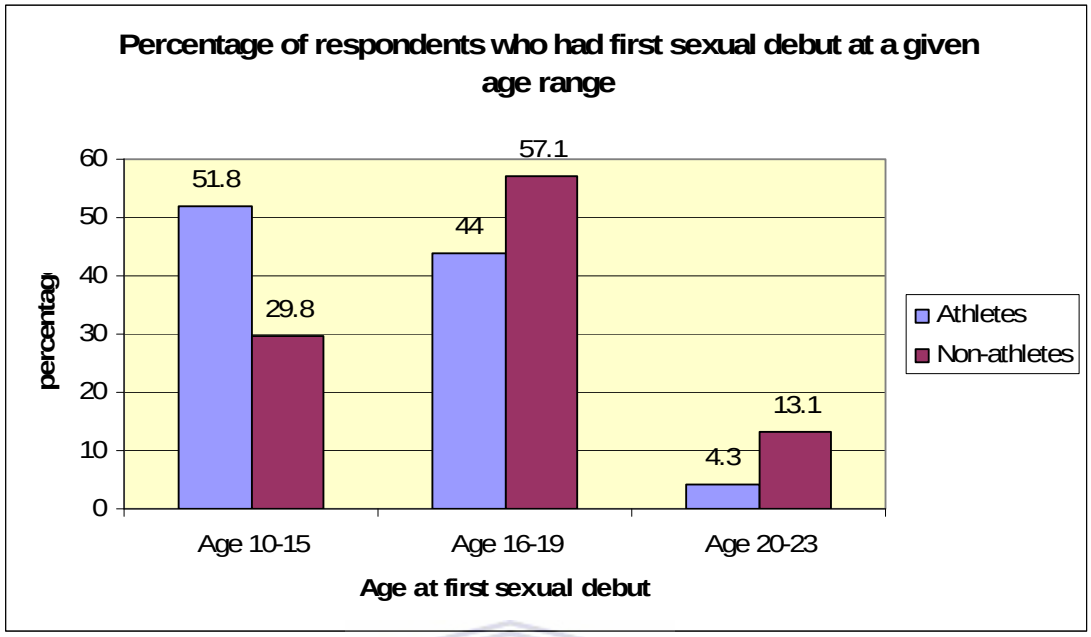

Figure 10 Respondents' age at first sexual debut

Furthermore, analysis of age at first sexual intercourse of athletes and non-athletes, using the T-test, gave a significant difference between mean ages, approximately 15 years for athletes and 17 years for non-athletes (t = -3.858, 223 degree of freedom, p = 0.000).

Table 12 T-test showing mean ages of respondents at first sexual debut

Respondents	Mean age	sd
Athletes	15.45 years	2.218 years
Non-Athletes	16.67 years	2.416 years

t-value = -3.858 *df = 223* *P = 0.000*

Specifically, the difference is that athletes had their first sexual debut at an earlier age than non-athletes (see Table 12).

Therefore, we conclude generally that there is a significant statistical difference between the athletes and non-athletes with regard to multiple sexual partnerships,

which is considered in the present study to be a determinant of high-risk sexual behaviour. Although in some instance the statistical differences did not exist, numerical values showed the differences. Specifically, the difference is that athletes are more likely to have multiple partners than non-athletes, which constitutes high-risk sexual behaviour among athletes. The null hypothesis which indicates that there is no significant difference in high-risk sexual behaviour between male student athletes and male student non-athletes is rejected.

4.4 Section B: High-risk Sexual Behaviour among elite athletes and non-athletes

In comparing groups of male students at UB, there is no significant difference between male student elite athletes and male student non-athletes in relation to high-risk sexual behaviour. To test this second hypothesis, the variable "Student category" with values labels "Elite athletes", "Recreation Sports Participants", and "Non-athletes" was created from the variables, "Do you play sports?", and "Level of participation". Non-athletes were taken to be those male students who answered "No" to the former and left the latter unanswered; elite athletes consisted of athletes with participation at international, national, university, and regional levels, while recreation sports participants (RSP) included those male students who did sports informally/socially, and at club level. The variable "Student category" with RSP excluded, was cross-tabulated with all the indicators of sexual behaviour in Table 3 and chi-square tests performed to determine the existence of differences. The results are given in Table 13 below.

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Table 13 Chi-square test results for cross tabulations

Determinants	Indicators of Sexual behaviour	N	X^2	*df*	*p*V	Concl
Multiple partners	Number of sexual partners you had in last 12 months	139	14.232	2	0.001	S
	Number of current sexual partners	141	17.419	2	0.000	S
	Number of sexual partners you had sex with in last 12 months	141	5.679	2	0.058	NS
Condom use	Regular condom use with primary partner in last 12 months	137	8.681	2	0.013	S
	Did condom ever break?	128	1.387	1	0.239	NS
	Will use condom in future	141	2.848	1	0.091	NS
History of STIs	Ever diagnosed with STIs	141	0.271	2	0.873	NS
	When was the last time you had STI?	141	1.090	4	0.896	NS
Partner sex life	Description of primary partner's sexual life	134	3.204	2	0.201	NS
	Were any of your partners HIV positive?	135	2.750	3	0.432	NS
Current sexual life	Have you decreased number of sexual partners?	135	0.152	1	0.697	NS
	Sexual intercourse in last 12 months	140	4.308	1	0.038	S
Casual partners	Have you ever had sex with someone you had just met?	141	6.025	1	0.014	S
First sexual debut	Age when first had sexual intercourse	133	13.172	2	0.001	S

Table 13: Chi-square tests results for cross-tabulations of the indicators "student category" and all of the indicators of sexual behaviour. Significance (S) and non-significance (NS) of relations is at 5% (0.05). Degree of freedom (df).

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4.4.1 Multiple partners

The majority of the respondents 71(51.1%) reported having had more than one sexual partner in the last 12 months. A significantly higher percentage of elite athletes 72.0% (36) indicated that they had more than one sexual partner compared to 39.3% (35) non-athletes (Table 14). The results suggest that elite athletes are more likely to have more than one sexual partner. (Chi-square = 14.23; p = 0.001 (Table 13).

Table 14 Respondents' sexual partners in the last twelve months

Number of sexual Partners	Elite athletes		Non-athletes		Total	
	Number	%	number	%	Number	%
None	7	14.0	34	38.2	41	29.5
One	7	14.0	20	22.5	27	19.4
More than one	36	72.0	35	39.3	71	51.1
Total	**50**	**100**	**89**	**100**	**139**	**100**

With regards to the number of current partners, nearly one-half of the respondents 45(31.9%) reported having more than one current partner. A significantly higher percentage of elite athletes 27(54%) reported that they had more than one current partner compared to the 18(40%) of non-athletes (Table 15). Therefore, the results suggest that elite athletes are more likely to have more than one current sexual partner. The difference between student category and multiple partners was significant, (chi-square = 17.42; P = 0.000 (Table 13).

Table 15 Respondents' number of current sexual partners

Number of current sexual partners	Elite-athletes		Non-athletes		Total	
	Number	%	Number	%	number	%
None	8	16.0	27	29.7	35	24.8
One	15	30.0	46	50.5	61	43.3
More than one	27	54.0	18	19.8	45	31.9
Total	**50**	**100**	**91**	**100**	**141**	**100**

The results further revealed that as many as 77(54.6%) of the respondents reported having had sexual intercourse with more than one sexual partner in the last 12 months. Of this total respondents, 34(68.0%) were elite athletes and 43 (47.3%) were non-athletes (Appendix B, Table 7). The number of sexual partners the respondents had sexual intercourse with in the last 12 months was statistically non-significant (chi-square= 5.68; p = 0.058 (Table 13), although non-athletes were shown to have more current sexual partners, descriptively.

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4.4.2 Respondents' Use of Condoms

A sizeable percentage of the respondents (108 or 78.8%) had used condoms with their primary partner. They reportedly "always" used the condoms. Of this, 45(90.0%) were elite athletes and the majority (63 or 72.4%) were non-athletes (Table 31). The results show that an inconsistent use of condoms was reported by 18(13.1%) of the respondents. Only one (2.0%) was an elite athlete and 17(19.5%) were non-athletes. Only 11(8%) of the total respondents reported that they never used condoms. Of this 4(8%) were elite-athletes and 7(8%) non-athletes (Table 16). A significantly high percentage of non-athletes, 17(19.5) compared to 1(2.0%) elite athlete indicated that they used condoms inconsistently (Table 16).

Table 16 Respondents' regularity of condom use

How often did you use condom	Elite-athletes		Non-athletes		Total	
	Number	%	Number	%	Number	%
Always	45	90.0	63	72.4	108	78.8
More than one	1	2.0	17	19.5	18	13.1
Never	4	8.0	7	8.0	11	8.0
Total	**50**	**100**	**87**	**100**	**137**	**100**

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Students categories and regularity of condom use with primary partner gave a statistically significant (chi-square = 8.68; p = 0.013), (Table 13).

However, two other indicators of the HRSB determinant, condom use viz. "Did condom break?" and "Will you use condom in future?" were not significantly associated to student' category, chi-square = 1.39; p>0.239 and chi-square = 2.845; p = 0.091(Table 4.12), respectively. Thirty-five (27.3%) respondents reportedly had at least a condom break when using it, and this was more prominent among non-athletes (19 or 23.8%) than elite athletes (16 or 33.3%) as shown in Table 17.

Table 17 Condom breakage during sexual intercourse

Condom broke during intercourse	Elite athletes		Non-athletes		Total	
	Number	**%**	**Number**	**%**	**Number**	**%**
Yes	16	33.3	19	23.8	35	27.3
No	32	66.7	61	76.3	93	72.7
Total	**48**	**100.0**	**80**	**100**	**128**	**100**

136 (96.5%) of the respondents reported that they will use condoms in future sexual intercourse, 50 (100%) elite athletes and 86 (94.5%) non-athletes (Appendix B, Table 8). Although not all indicators of condom use are statistically significant, descriptively, summaries show that non-athletes are more inconsistent in using condoms during sexual intercourse than elite athletes.

4.4.3 Respondent's History of STI

A higher proportion of respondents (97 or 68.8%) reported being diagnosed with one STI in the last two years. Of these 34 (68%) were elite athletes and 63 (69.2%) non-athletes. Four respondents (2.8%) reportedly had more than one STI in the same period, of which 1(2.0%) was an elite athlete and 3 (3.3%) were non-athletes (Table 18).

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Table 18 Respondents history of STIs

Ever diagnosed with STI	Elite Athletes		Non-athletes		Total	
	number	**%**	**number**	**%**	**number**	%
No STI	34	68.0	63	69.2	97	68.8
One STI	15	30.0	25	27.5	40	28.4
More than one STIs	1	2.0	3	.3.3	4	2.8
Total	**50**	**100**	**91**	**100**	**141**	**100**

Statistically, results suggest that there was no significant difference in the number of STIs in the last two years between athletes and non-athletes (chi-square =0.27; p =

0.873 (Table 13). Descriptively, non-athletes tended to have a greater history of STIs than elite athletes.

Forty-four (31.2%) of the respondents reportedly had an STI "last week" or "last month" or "a year ago" or "over a year ago". Sixteen (32.9%) were elite athletes and 28(30.8%) non-athletes (Appendix B, Table 9). Although the results show a higher percentage of non-athletes reported a history of STIs, the difference however was not found to be significant (Chi- square = 1.090; p = 0.896 (Table 13). However, descriptively, non-athletes were shown to have a richer history of STIs than elite athletes.

4.4.4 Partner's sex life

The two indicators of the respondent's sexual risk-taking gave a non-significant relationship with the students' categories (Table 13). However, of the 19 (14.2%) respondents who reportedly had primary sexual partners who were also having sex with other sexual partners, 10 (20%) were elite athletes and 9 (10.7%) non-athletes. Seventy-six (56.7%) reported being unaware of other sexual partners for their primary partners, of which 24(48%) were elite athletes and 52 (61.9%) non-athletes. Table 19 shows the number of respondents for each response.

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Table 19 Respondents' primary partner sexual life

Description of partner's sexual life	Elite Athletes		Non-athletes		Total	
	number	%	number	%	number	%
Has sex with me only	16	32.0	23	27.4	39	29.1
Have sex with me and others	10	20.0	9	10.7	19	14.2
Not aware of other sexual partners	24	48.0	52	. 61.9	76	56.7
Total	**50**	**100**	**84**	**100**	**141**	**100**

Only one (0.7%) non-athlete reported knowing the HIV status of his partners. Ninety two (68.1%) had no knowledge of their partner's HIV status, 32(64%) were elite athletes and 60(70.6%) were non-athletes. Eight (5.9%) of the respondents preferred not to answer the question, 2(4%) were elite athletes and 6 (7.1%) were non-athletes. Appendix B - Table 10 below shows the distribution of responses by student category.

Descriptively, more non-athletes engage in sexual risk taking than elite athletes, although the difference between indicators of sexual risk-taking and the student category gave statistically non-significant results (Table 13).

4.4.5 Respondent's Current Sexual Life

As many as 89 (65.9%) of the respondents decreased the number of sexual partners they had had in the last 12 months, while 46 (34.1%) did not. Specifically, 34 (68%) elite athletes and 55 (64.7%) non-athletes decreased the number of sexual partners while 16 (32%) elite athletes and 30 (35.3%) non-athletes did not (Appendix B – Table 11). The difference was not statistically significant (chi-square = 0.15; p = 0.697 (Table 13).

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On the other hand, the difference between the student categories in the indicator, "Did you have sexual intercourse in the last 12 months?" was significant, some quite highly p = 0.038 (Table 13). Specifically one hundred and thirteen (80.7%) respondents who had had sexual intercourse in the last 12 months, 45(90%) were elite athletes and 68 (75.6%) were non-athletes, whereas of the 27 (19.3%) who did not, 5 (10%) were elite athletes and 22 (24.4%) were non-athletes (Table 20).

Table 20 Respondents had sex intercourse during the last 12 months

Sexual intercourse in last 12 months	Elite athletes		Non-athletes		Total	
	number	%	number	%	number	%
Yes	45	90.0	68	75.6	113	80.7
No	5	10.0	22	24.4	27	19.3
Total	**50**	**100**	**90**	**100**	**140**	**100**

Generally, the results show that non-athletes have a riskier current sexual life than elite athletes.

4.4.6 Casual Sexual Partnership

Sixty-five (46.1%) respondents reported having had sexual intercourse with partners they had just met, of whom 30 (60%) were elite athletes and 35(38.5%) non-athletes (see Table 21).

Table 21 Respondents had casual sexual intercourse

Sexual intercourse with someone just met	Elite athletes		Non-athletes		Total	
	number	%	number	%	number	%
Yes	30	60.0	35	38.5	65	46.1
No	20	40.0	56	61.5	76	53.9
Total	**50**	**100**	**91**	**100**	**141**	**100**

The difference between the indicator of casual sexual partnership and participation in sports was statistically significant, (chi-square = 6.03; p = 0.014 (Table 27). Descriptively, more non-athletes had intercourse with casual partners than elite athletes.

4.4.7 Respondent's First Sexual Debut

Fifty-five (41.4%) respondents reportedly first had sexual intercourse when they were aged between 10 to 15 years, 30 (61.2%) elite athletes and 25 (29.8%) non-athletes. Sixty-five (48.9%) had sex for the first time when they were aged between 16 to 19

years, of whom 17 (34.7%) were elite athletes and 48 (57.1%) non-athletes. The first sexual intercourse of 13 (9.8%) respondents was between the age of 20 to 23 years, of whom 2 (4.1%) were elite athletes and 11 (13.1%) non-athletes (see Figure 11).

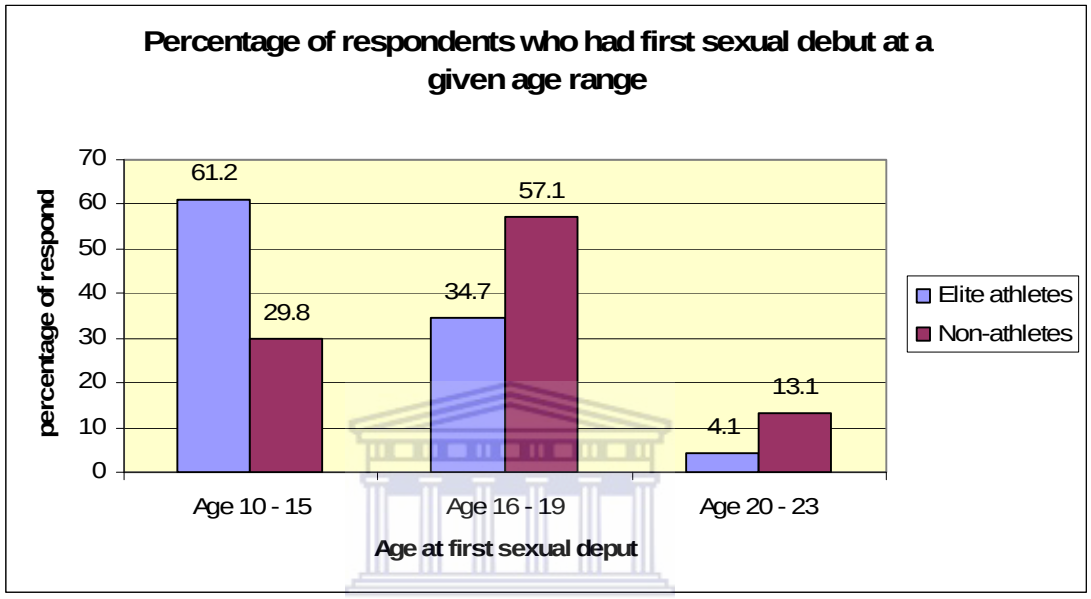

Figure 11 Respondents' age at first sexual debut

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The difference between age groups and the student categories was significant, (chi-square = 13.17; p = 0.001 (Table 13).

Furthermore, analysis of age of first sexual intercourse of elite athletes and non-athletes using the t-test gave a significant difference in mean ages, approximately 15 years for elite athletes and 17 years for non-athletes (t = -3.988; 131 degree of freedom; p= 0.000).

Table 22 T-test showing mean ages of respondents at first sexual debut

Respondents	Mean age	sd
Elite athletes	14.98 years	2.241 years
Non-athletes	16.67 years	2.416 years

t-value = -3.988 *df = 131* *p = 0.000*

Specifically, the difference is that elite athletes had their first sexual debut at an earlier age than non-athletes (see Table 22).

It is therefore concluded that with regards to HRSB, there is a statistical difference between elite athletes and non-athletes. The difference is that male non-athletes have a higher prevalence of HRSB than their male elite athlete peers. Therefore, the null hypothesis which states that there is no significant difference in high-risk sexual behaviour between elite athletes and non-athletes is rejected.

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4.5 Section C: High-risk Sexual Behaviour among Elite athletes and RSP

In comparing groups of male students at UB, no significant difference exists between male student elite athletes and male student recreational sports participants (RSP), with regard to high-risk sexual behaviour. To assess the third hypothesis , the variable "Student category" with labels "Elite athletes", "Recreation Sports Participants", and "Non-athletes" was created from the variables, "Do you play sports?", and "Level of participation". Non-athletes were taken to be those male students who answered "No" to the former and left the latter unanswered; elite athletes consisted of athletes with participation at international, national, university, and regional levels while recreation sports participants (RSP) included those male students who do sports informally/socially, and at club level. The variable "Student category" with the exclusion of non-athletes was cross-tabulated with all the indicators of sexual

behaviour (SB) in Table 3 and chi-square tests performed to determine if there were any differences in sexual behaviour. The results are given in Table 23 below**.**

Table 23 Chi-square test results for cross tabulations

Determinants of HRSB	Indicators of Sexual behaviour	N	X^2	*df*	*P*v	Conclusion
Multiple partners	Number of sexual partners you had in last 12 months	144	3.150	2	0.207	NS
	Number of current sexual partners	144	3.283	2	0.194	NS
	Number of sexual partners you had sex with in last 12 months	144	0.768	2	0.681	NS
Condom use	Regular condom use with primary partner in last 12 months	142	10.880	3	0.012	S
	Did condom ever break?	139	0.031	1	0.861	NS
	Will use condom in future	144	2.188	1	0.139	NS
History of STIs	Ever diagnosed with STIs	144	1.988	2	0.370	NS
	When was the last time you had STI?	144	4.703	3	0.195	NS
Partner's sex life	Description of primary partner's sexual life	142	1.825	2	0.402	NS
	Were any of your partners HIV positive?	143	0.584	3	0.900	NS
Current sexual life	Have you decreased number of sexual partners?	141	0.584	1	0.445	NS
	Did you have sexual intercourse during the last 12 months?	144	0.969	1	0.325	NS
Casual partners	Have you ever had sex with someone you had just met?	144	3.977	1	0.046	S
First sexual debut	How old were you when you had sexual intercourse for the first time?	141	2.771	2	0.250	NS

Table 23: Chi-square test results for cross-tabulations of the indicators "elite athletes and RSP" and each of the indicators of sexual behaviour. Significance (S) and non-significance (NS) of relationships is at 5% (0.05). Degrees of freedom (df)

4.5.1 Multiple Partners

A high proportion of respondents (90 or 62.5%) reported having had more than one sexual partner in the last 12 months. Among these, 36 (72%) were elite athletes and 54 (57.4%) RSP (Table 24). The results showed that there was no significant difference between the student categories and the number of sexual partners the respondents have had in the last 12 months (chi-square 3.15; p = 0.207 (Table 23).

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Table 24 Respondents' sexual partners in the last 12 months

Number of sexual partners in last 12 months	Elite Athletes		RSP		Total	
	Number	%	number	%	Number	%
None	7	14.0	23	24.5	30	20.8
One	7	14.0	17	18.1	24	16.7
More than one	36	72.0	54	57.4.	90	62.5
Total	**50**	**100**	**94**	**100**	**144**	**100**

With reference to the number of current sexual partners, 63(43.8%) respondents reported having more than one current sexual partner. Of these 27(54%) were elite athletes and 36 (38.3%) RSP (Table 24). The difference between student category and the number of sexual partners the respondent had was non-significant (chi-square= 3.28; p = 0.194 (Table 23).

Table 25 Respondents differed in number of current sexual partners

Number of current sexual partners	Elite Athletes		RSP		Total	
	number	%	Number	%	Number	%
None	8	16.0	21	22.3	29	20.1
One	15	30.0	37	39.4	52	36.1
More than one	27	54.0	36	38.3	63	43.8
Total	**50**	**100**	**94**	**100**	**144**	**100**

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Nonetheless, a higher percentage 92 (63.9%) of the respondents reported having had sexual intercourse with more than one sexual partner in the last 12 months. Thirty four (68%) were elite athletes and 58 (61.7%) RSP (Table 26).

Table 25 Respondents differed in number of sexual partners in last 12 months

Number of sexual partners in 12 months	Elite Athletes		RSP		Total	
	Number	%	Number	%	Number	%
None	5	10.0	9	9.6	14	9.7
One	11	22.0	27	28.7	38	26.4
More than one	34	68.8	58	61.7	92	63.9
Total	**50**	**100**	**94**	**100**	**144**	**100**

The difference however, between students' categories and the number of partners was not found to be statistically significant (chi-square = 0.77; p = 0.681 (Table 23).
Although the results did not show any significant difference between students' categories and multiple partnerships, numerical summaries show that RSP are more likely to have multiple partners than are non-athletes**.**

4.5.2 Respondent's Use of Condoms

Inconsistent use of condoms with primary partner was reported by 31 (21.8%) of the respondents. They reportedly "Never" used the condoms, used them "More than half the time" or "Less than half the time". Of these, 5 (10%) were elite athletes and 26 (28.2%) RSP (Table 4.26). Students category and regularity of condom use with primary partner in the last year, was statistically significant (chi-square = 10.880; p = 0.012) (Table 23).

Table 27 Respondents differed in regularity of condom usage

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Use of condoms	**Elite athletes**		**RSP**		**Total**	
	number	**%**	**number**	**%**	**number**	**%**
Always	45	90.0	66	71.1	111	78.2
More than half times	1	2.0	14	15.2	15	10.6
Less than half times	0	.0	7	7.6	7	4.9
Never	4	8.0	5	5.4	9	6.3
Total	**50**	**100.0**	**92**	**100.0**	**142**	**100.0**

Nevertheless, two other indicators of the HRSB determinant, condom use viz. "Did condom break?" and "Will you use condom in future?" were not significantly related to students' category , chi-square = 0.03; p = 0.861 and chi-square = 2.19; p = 0.139 (Table 23), respectively. Forty-five (32.4%) respondents reportedly had at least one condom break when using it, and this was more prominent among RSP 29 (31.9%)) than elite athletes 16 (33.3%) as shown in Table 28.

Table 28 Respondents' condom broke during sexual intercourse

Did condom break	Elite		RSP		Total	
	number	%	number	%	number	%
Condom broke	16	33.3	29	31.9	45	32.4
Condom never broke	32	66.7	62	68.1	94	67.6
Total	**48**	**100.0**	**91**	**100.0**	**139**	**100.0**

Only 4(1.00%) respondents reported that they will not use condoms in future sexual intercourse, these were all RSPs (Appendix B - Table 11). Although not all indicators of condom use are statistically significant, numerical summaries show that RSP are more inconsistent in using condoms during sexual intercourse.

4.5.3 Respondent's History of STI

Few respondents (39 or 27.1%) reported being diagnosed with one STI in the last two years, 15 (30%) of these were elite athletes and 24 (25.5%) RSP, while 8 (5.6%) reportedly had more than one STI in the same period, of whom 1(2%) was an elite athlete and 7(7.4%) RSP (See Table 29 for details). Statistically, results suggest that there was no difference in the number of STIs in the last two years among the student categories (chi-square =1.99; p = 0.370 (Table 23).

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Table 29 Respondents History of STI

Ever diagnosed with STI	Elite athletes		RSP		Total	
	number	%	number	%	number	%
No STI	34	68.0	63	67.0	97	67.4
One STI	15	30.0	24	25.5	39	27.1
More than one STIs	1	2.0	7	.7.4	8	5.6
Total	**50**	**100**	**94**	**100**	**144**	**100**

Forty-seven (32.6%) of the respondents reportedly had an STI “last month” or “a year ago” or “over a year ago”. 16 (32%) were elite athletes and 31 (32.9%) RSP (Appendix B -Table 12). The difference with students categories was non-significant (chi- square = 4.70; p = 0.195 (Table 23). However, RSP have a richer history of STIs than elite athletes descriptively.

4.5.4 Respondents’ partner’s sex lives

The two indicators of the respondent’s sexual risk-taking showed non-significant differences with the students’ categories (Table 23). On the other hand, of the 24 (16.9%) respondents who reportedly had primary sexual partners who also had sex with other sexual partners, 10 (20%) were elite athletes and 14 (15%) RSP. A high proportion of the respondents 79(55.6%) reported being unaware of other sexual partners for their primary partners. Among these, 24(48%) were elite athletes and 55 (59.8%) RSP (Appendix B –Table 13).

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Only one RSP reported having had sexual intercourse with HIV positive partners. A large number of respondents (92 or 64.3%) reported that they had no knowledge of their partner’s HIV status, of whom 32 (64%) were elite athletes and 60(64.5%) RSP. Nevertheless, six (4.2%) of the respondents preferred not to answer the question, 2 (4%) of whom were elite athletes and 4 (4.3%) RSP (Appendix B -Table 14).

Descriptively, more RSP engage in sexual risk-taking than elite athletes, although the difference between indicators of sexual risk-taking and student categories gave statistically non-significant results (Table 23) chi-square = 0.59; p = 0.064.

4.5.5 Respondent’s Current Sexual Lives

As many as ninety (63.8%) of the respondents decreased the number of sexual partners they had in the last 12 months, while 51 (36.2%) did not. Specifically, 34

(68%) elite athletes and 56 (61.5%) RSP decreased the number of sexual partners while 16 (32%) elite athletes and 35 (38.5%) did not (see Table 30).

Table 30 Decreased Number of sexual partners in the last 12 months

Decreased number of sexual partners	Elite		RSP		Total	
	number	%	number	%	number	%
Yes	34	68.0	56	61.5	90	63.8
No	16	32.0	35	38.5	51	36.2
Total	**50**	**100.0**	**91**	**100.0**	**141**	**100.0**

Statistically, there was no significant difference between student categories and the indicator "Decreased number of sexual partners in last 12 months" chi-square=0.59; p = 0.445 (Table 23).

The difference between students categories and the indicator, "Did you have sexual intercourse in the last 12 months?" was non-significant, chi-square = 0.97, p = 0.325 (Table 23). Of 124 (86.1%) respondents who had had sexual intercourse in the last 12 months, 45 (90%) were elite athletes and 79 (84%) RSP, whereas of the 20 (13.9%) who had not, 5 (10%) were elite athletes and 15 (16%) RSP (see Appendix B -Table 15).

Generally, RSP had a riskier current sexual life than elite athletes.

4.5.6 Casual Sexual Partnership

Almost half of the respondents (70 or 48.6%) reported having had sexual intercourse with partners they had just met, of whom 30 (60%) were elite athletes and 40 (42.6%) RSP (Table 31).

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Table 31 Respondents sexual intercourse with casual partners

Sex with someone you just met	Elite athletes		RSP		Total	
	number	%	number	%	number	%
Yes	30	60.0	40	42.6	70	48.6
No	20	40.0	54	57.4	74	51.4
Total	**50**	**100**	**94**	**100**	**144**	**100**

The relationship between indicator of casual sexual partnership and students categories was significant, chi-square = 3.98; p = 0.046 (Table 23). Descriptively, more RSP had intercourse with casual partners than elite athletes.

4.5.7 Respondent's First Sexual Debut

As many as 73(51.8%) respondents reported having had their first sexual intercourse when they were aged between 10 to 15 years, of whom 30 (61.2%) were elite athletes and 43 (46.7%) RSP. Sixty-two (44.0%) had sex for the first time when they were aged between 16 to 19 years, of whom 17(34.7%) were elite athletes and 45(48.9%) RSP; while the first sexual intercourse of 6 (4.3%) respondents was between the age of 20 to 23 years, of whom 2 (4.1%) were elite athletes and 4 (4.3%) RSP (Figure 12).

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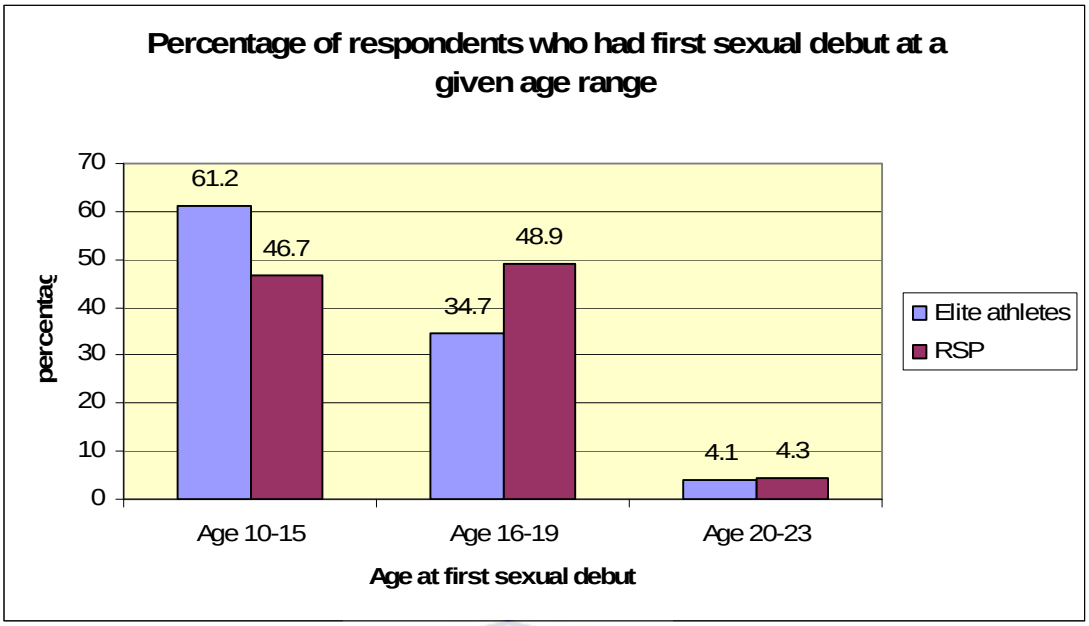

Figure 12 Respondents' differed on the basis of age at first sexual debut

The difference between age groups and students categories was non-significant, chi-square-2.77; p = 0.250 (Table 23).

Furthermore, analysis of age of first sexual intercourse of elite athletes and RSP using the t-test gave a significant difference in mean ages, approximately 15 years for athletes and 16 years for non-athletes (t-value = -1.841; 139 degree of freedom 139; p = 0.068).

Table 32 T-test showing mean ages of respondents at first sexual debut

Respondents	Mean age	sd
Elite	14.98 years	2.241
RSP	15.70 years	2.178

T-value = -1.841 df = 139 P = 0.068

Descriptively, elite athletes specifically had their first sexual debut at an earlier age than those in the RSP group (Table 32).

Generally, even though there was no statistical difference between elite athletes and RSP with regards to almost all indicators of high-risk sexual behaviour (HRSB), numerical summaries showed that Recreational Sports Participants (RSP) were more likely to engage in HRSB than their elite athlete counterparts. However, we reject the null hypothesis due to the fact there were no statistical differences.

4.6 Section D: High-risk Sexual Behaviour among RSP and Non-athletes

In comparing groups of male students at UB, there is no significant difference between male student recreational sports participants (RSP) and male student non-athletes with regards to high-risk sexual behaviours. To test the fourth hypothesis, the variable "Student category" with labels "Elite athletes", "Recreation Sports Participants", and "Non-athletes" was created from the variables, "Do you play sports?", and "Level of participation". Non-athletes were taken to be those male students who answered "No" to the former and left the latter unanswered; elite athletes consisted of athletes with participation at international, national, university, and regional levels while recreational sports participants (RSP) includes those male students who did sports informally/socially, and at club level. The variable "Student category" with the exclusion of elite athletes, was cross-tabulated with all the indicators of sexual behaviour (SB) in Table 3 and chi-square tests performed to determine the existence of differences in sexual behaviour. The results are given in Table 33 below.

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Table 33 Chi-square test results for cross tabulations

Determinants of HRSB	Indicators of sexual behaviour	N	X^2	*df*	*p*V	Concl
Multiple partners	Number of sexual partners you had in last 12 months	183	6.290	2	0.043	S
	Number of current sexual partners	185	7.679	2	0.022	S
	Number of sexual partners you had sex with in last 12 months	185	4.918	2	0.086	NS
Condom use	Regular condom use with primary partner in last 12 months	179	7.560	3	0.056	NS
	Did condom ever break?	171	1.390	1	0.238	NS
	Will use condom in future	185	0.153	1	0.695	NS
History of STIs	Ever diagnosed with STIs	185	1.572	2	0.456	NS
	When was the last time you had STI?	185	6.873	4	0.143	NS
Partner's sex life	Description of primary partner's sexual life	176	0.809	2	0.667	NS
	Were any of your partners HIV positive?	178	2.219	3	0.528	NS
Current sexual life	Have you decreased number of sexual partners?	176	0.189	1	0.664	NS
	Had sexual intercourse in the last 12 months	184	2.061	1	0.151	NS
Casual partners	Have you ever had sex with someone you had just met?	185	0.321	1	0.571	NS
First sexual debut	Age when first had sexual intercourse	176	7.781	2	0.020	S

Table 33: Chi-square test results for cross-tabulations of the indicators "RSP and non-athletes" and each of the indicators of sexual behaviour. Significance (S) and non-significance (NS) of relationships is at 5% (0.05). Degrees of freedom (df).

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4.6.1 Multiple Partners

For the indicator of SB, number of sexual partners the respondents had had sex with in the last 12 months, the results indicate that over half of the respondents , 57(31.1%) reported having had more than one sexual partner in the last 12 months, of whom 23(24.5%) were RSP and 34(38.2%) non-athletes (Table 34). The results showed a significant difference between the student categories and the number of sexual partners the respondents had had in the last 12 months (chi-square = 6.3; p = 0.043) (Table 33).

Table 34 Respondents' number of sexual partners in the last year

Number of sexual Partners	RSP		Non-athletes		Total	
	Number	**%**	**number**	**%**	**number**	**%**
None	23	24.5	34	38.2	57	31.1
One	17	18.1	20	22.5	37	20.2
More than one	54	57.4	35	39.3	89	48.6
Total	**94**	**100**	**89**	**100**	**183**	**100**

With regards to the number of current sexual partners, 54(29.2%) respondents reported having had more than one partner. A significantly higher percentage of RSP 36(38.3%) indicated that they had had more than one current sexual partner compared to 18 (19.8%) non-athletes (Table 35 below).

Table 35 Respondents differed on the basis of current sexual partners

Number of current sexual partners	RSP		Non-athletes		Total	
	number	**%**	**number**	**%**	**number**	**%**
None	21	22.3	27	29.7	48	25.9
One	37	39.4	46	50.5	83	44.9
More than one	36	38.3	18	19.8	54	29.2
Total	**94**	**100**	**91**	**100**	**185**	**100**

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The relationship between student categories and the number of sexual partners the respondents had was statistically significant (chi-square= 7.68; p = 0.022 (Table 33).

As many as 101 (54.6%) of the respondents reported having had sexual intercourse with more than one sexual partner in the last 12 months. Fifty eight (61.7%) were RSP and 43(47.3%) non-athletes (Appendix B - Table 16).

The relationship between student categories and the number of partners they had sexual intercourse with in last 12 months was not statistically significant (chi-square = 4.92; p = 0.086 (Table 33).

Therefore, we conclude generally that there is a relationship between student categories and multiple partnerships. Specifically, the relationship is that RSP are more likely to have multiple partners than are non-athletes

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4.6.2 Respondent's Use of Condoms

Inconsistent use of condoms with the primary partner was reported by 50 (27.9%) of the respondents. They reportedly "Never" used the condoms, used them "More than half the time" or "Less than half the time". Of these, 26(28.2%) were RSP and 24(27.5%) non-athletes (Table 36). The students' category and regularity of condom use with primary partner in the last year gave no statistical significant difference (chi-square = 7.56; p = 0.056) (Table 33).

Table 4.36 Respondents differed on the basis of using of condom

Use of condoms	**RSP**		**Non-athletes**		**Total**	
	number	**%**	**number**	**%**	**number**	**%**
Always	66	71.1	63	72.4	129	72.1
More than half times	14	15.2	17	19.5	31	17.3
Less than half times	7	7.6	0	.0	7	3.9
Never	5	5.4	7	8.0	12	6.7
Total	**92**	**100.0**	**87**	**100.0**	**179**	**100.0**

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The other two indicators of the HRSB determinant, condom use versus "Did condom break?" and "Will you use condom in future?" were also not significantly related to students' category, chi-square = 1.39; p = 0.238 and chi-square = 0.15; p = 0.695 (Table 33), respectively. Furthermore, 48 (28.1%) respondents reportedly had at least a condom break when using it, and this was more evident among RSP (29 or 31.9%) than non-athletes (19 or 23.8%) as shown in Appendix B - Table 17. Only nine (4.9%) respondents reported that they will not use condoms in future sexual intercourse, 4 (4.3%) RSP and 5 (5.5%) non-athletes (Table 37).

Table 37 Respondents' future condom use

Do you think you will use condoms in future	RSP		Non-athletes		Total	
	number	%	number	%	Number	%
Yes	90	95.7	86	94.5	176	95.1
No	4	4.3	5	5.5	9	4.9
Total	**94**	**100**	**91**	**100**	**185**	**100**

Although all indicators of condom use are not statistically significant, numerical summaries show that RSP are more inconsistent in using condoms during sexual intercourse.

4.6.3 Respondent's History of STI

Forty-nine (26.5%) respondents reported being diagnosed with one STI in the last two years, of whom 24(25.5) were RSP and 25 (27.5%) non-athletes, while 10(5.4%) reportedly had more than one STI in the same period, of whom 7 (7.4%) were RSP and 3 (23.3%) non-athletes (See Table 38 for details).

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Table 38 Respondent's history of STI

Ever diagnosed with STIs	RSP		Non-athletes		Total	
	number	%	number	%	Number	%
No STI	63	67.0	63	69.2	126	68.1
One STI	24	25.5	25	27.5	49	26.5
More than one STIs	7	7.4	3	3.3	10	5.4
Total	**94**	**100.0**	**91**	**100.0**	**185**	**100.0**

Statistically, results suggest that there was no difference in the number of STIs in the last two years between RSP and non-athletes (chi-square = 1.57; p = 0.456 (Table 33).

Fifty-nine (31.9%) of the respondents reportedly had an STI "last week" or "last month" or "a year ago" or "over a year ago". 31 (32.9%) were RSP and 28 (30.8%) non-athletes (Appendix B - Table 4.17). The difference with the student category was non-significant (chi- square = 6.87; p = 0.143 (Table 33). Nonetheless, descriptively RSP showed to have a more well-defined history of STIs than non-athletes.

4.6.4 Partner's sex life

The two indicators of the respondent's sexual risk-taking gave non-significant difference with students' category (Table 33). However, of the 23(13.1%) respondents who reportedly had primary sexual partners who also had sex with other sexual partners, 14(15.2%) were RSP and 9(10.7%) non-athletes. One hundred and seven (60.8%) reported being unaware of other sexual partners for their primary partners, of whom 55(59.8%) were RSP and 52(61.9%) non-athletes. Table 39 shows the respondents' number for each response.

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Table 39 Respondents' description of Primary partner's sexual life

Primary partner's sexual life	RSP		Non-athletes		Total	
	number	%	number	%	Number	%
Have sex with me only	23	25.0	23	27.4	46	26.1
Have sex with me and others	14	15.2	9	10.7	23	13.1
Not aware of other sexual partners	55	59.8	52	61.9	107	60.8
Total	**92**	**100.0**	**84**	**100.0**	**176**	**100.0**

Quite a small number of the respondents 2 (1.1%) reported having had sexual intercourse with HIV positive partners, an RSP and a non-athlete. Among the 129 (67.4%) respondents who reported that they had no knowledge of their partner's HIV status, 60 (64.5%) were RSP and 60 (70.6%) non-athletes. Ten (5.6%) of the

respondents preferred not to answer the question, 4(4.3%) of whom were athletes and 6(7.1%) non-athletes. Appendix B - Table 19 shows the distribution of responses by participation in sports.

Descriptively, more RSP engaged in sexual risk-taking than non-athletes, although the difference between indicators of sexual risk-taking and student categories indicated statistically non-significant results (Table 33).

4.6.5 Respondent's Current Sexual Life

As many as 111 (63.1%) of the respondents decreased the number of sexual partners they had had in the last 12 months, while 65(36.9%) did not. Specifically, 56(61.5%) RSP and 55(64.7%) non-athletes decreased the number of sexual partners while 35(38.5%) athletes and 30(35.3%) did not (see Appendix B – Table 20). Statistically, there was no significant difference between the student categories in the indicator "Decrease number of sexual partners in last 12 months?" chi-square = 0.189; p = 0.664 (Table 33).

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The analysis further showed that the indicator of sexual behaviour "Did you have sexual intercourse in the last 12 months?" was non significant, chi-square = 2.1; p = 0.151 respectively (Table 33). Of the majority (147 or 79.9%) of respondents who had had sexual intercourse in the last 12 months, 79 (84%) were RSP and 68 (46.375.6%) non-athletes, whereas of the 37 (20.1%) who had not, 15 (16%) were RSP and 22 (24.4%) non-athletes (see Appendix B - Table 21).

Generally, descriptively, RSP were shown to have a riskier current sexual life than non-athletes.

4.6.6 Casual Sexual Partnership

Seventy-five 40.5%) of the respondents reported having had sexual intercourse with partners they had just met, of whom 40 (42.6%) were RSP and 35 (38.5%) non-athletes (Table 40). The difference between indicators of casual sexual partnership, and the student categories was non-significant, chi-square = 0.32; p = 0.571 (Table 33). Descriptively, more RSP had intercourse with casual partners than non-athletes.

Table 40 Respondents had sexual intercourse with casual partners

Sex with someone you just met	**RSP**		**Non-athletes**		**Total**	
	number	**%**	**number**	**%**	**Number**	**%**
Yes	40	42.6	35	38.5	75	40.5
No	54	57.4	56	61.5	110	59.5
Total	**94**	**100**	**91**	**100**	**185**	**100**

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4.6.7 Respondent's First Sexual Debut

Sixty-eight (38.6%) respondents reportedly first had sexual intercourse when they were aged between 10 to 15 years, of whom 43 (46.7%) were RSP and 25 (29.8%) non-athletes. Ninety-three (52.8%) had sex for the first time when they were aged between 16 to 19 years. Of these, 45 (48.9%) RSP and 48 (57.1%) were non-athletes; while the first sexual intercourse of 15 (8.5%) respondents was between the ages of 20 to 23 years, 4 of whom (4.3%) were RSP and 11 (13.1%) non-athletes (see Figure 4.13). The difference between age groups and student categories was significant, p = 0.006 (Table 33).

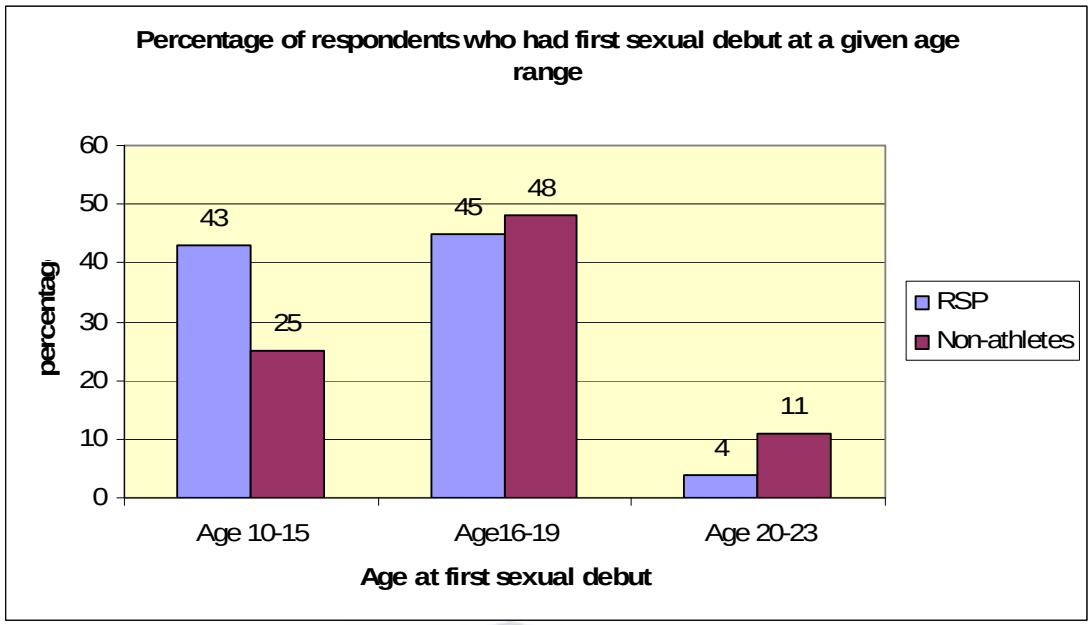

Figure 13 Respondents differentiated on the basis of age at first sexual debut

With regards to analysis of age at first sexual intercourse of athletes and non-athletes, using the t-test gave a significant difference in mean ages, approximately 15 years for RSP and 17 years for non-athletes (t = -2.804; 174 degree of freedom; p = 0.006).

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Table 41 T-test showing mean ages of respondents at first sexual debut

Respondents	Mean age	Sd
RSP	15.70 years	2.178
Non-athletes	16.67 years	2.416

t-value = -2.804 df = 174 P = 0.006

Specifically, the difference is that RSP had first sexual debut at a much earlier age than non-athletes (see Figure 14 and table 41 above).

It is therefore concluded that there is a statistical difference between RSP and non-athletes with regards to HRSB. The difference is that male students RSP had a higher

prevalence of HRSB than their male non-athlete counterparts. Accordingly, the null hypothesis is accepted.

4.7. Chapter Summary

This chapter presented descriptive results of the seven determinants of high-risk sexual behaviour, such as multiple partnerships; condom use; history of sexually transmitted infections; respondent's partner's sex life; current sexual life; casual sexual relationships and age at first sexual debut. Cross-tabulations to assess the difference between the HRSB of athletes and non-athletes indicated some differences. Although not all of them were statistically significant, numerical statistics showed differences. In most cases, as predicted, some significant differences were found, e.g. significant differences exist between male student athletes and male student non-athletes with regards to engagement in sexual intercourse and having multiple partners. These and other interesting findings will be discussed in the final chapter.

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CHAPTER FIVE

DISCUSSION, RECOMMENDATIONS AND CONCLUSIONS

5.0 Introduction

In this chapter the results of the present study are summarized and discussed. The recommendations, implications and limitations of this study, as well as suggestions for future research, are also provided. The chapter concludes with a summary of the entire thesis. The focus is on what has been learnt from the study and making suggestions and recommendations for future studies. In order to effectively analyse and interpret the findings from the present study within the field of sexual behaviour research, findings from other sexual behaviour studies will be used as reference points.

It is important, however, to remember that much of the research on sexual behaviour has been conducted in the United States of America or Europe with white, black and Hispanic adolescents. Much of the previous research conducted has been by way of comparative studies between these racial groups and of course between males and females. Many of the studies were conducted in metropolitan or inner city communities. In addition, due to the convenience of recruiting participants for research and the fact that consent is not needed, many of the studies conducted have been conducted with college or university students above the age of eighteen. There are very few studies and very little data concerning the sexual behaviour of Botswana students. Those studies that are available in Botswana have been conducted with male and female students and very few or none of the samples in these studies are specifically from the male student population. There is also a lack of published data available that focuses solely on athlete versus non-athlete male students at the University of Botswana.

Nevertheless, Snenstein, Pleck and Leighton (1989) argue that comparisons of data from different studies can be problematic, as differences can be due to differences in survey design rather than differences in behaviour. As a result, one must be cautious in attempting to draw comparisons between various studies. Factors present in the current study such as language, gender, location, culture, religion and socio-economic standings must be taken into consideration. As noted in Chapter Three, quantitative analytic procedures were used on the information obtained from the survey questionnaires. The results from each relevant item were presented separately and are expressed in terms of percentages and frequencies in order to provide a clear picture of numbers and proportions. In some instances the results were expressed in the form of tables and charts, and some in the form of cross-tabulations. Statistical tests were also performed and reported, such as chi-square and t-tests. As mentioned in Chapter Three, the computed chi-square was determined to be significant at the 0.05 level of statistical significance and procedures were performed at 95% confidence level.

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5.1 Interpretation of the Results

The main objective of the current research study was to compare the sexual behavioural patterns between elite male student athletes, male student recreational sports participants (RRSP) and male student non-athletes at the University of Botswana, and to establish whether differences exist between male students who participate in sports and those who do not, with regard to high-risk sexual behavioural patterns. It is emphasized that sexual activity among the youth has steadily increased since the 1970's, making it a significant public health concern (Ramerez-Valles *et al.*, 1998). Unhealthy sexual behaviours are associated with long-term problems. Investments aimed at promoting healthy sexual behaviours can significantly reduce future health-related problems and costs. An examination of youths' patterns of risky sexual behaviour could help illuminate behavioural differences between different groups.

In pursuit of the main objective, four hypotheses were used to examine whether there is a difference in sexual behaviours between elite male student athletes, recreational sports participants, and non-athletes that could put them at risk of contracting STIs and HIV/AIDS.

5.2 Hypotheses: Discussion of Outcomes

5.2.1 Sexual behaviour among athletes and non-athletes

The first hypothesis stated that there is no significant difference in sexual behaviour between male students who participate in sports (athletes) and male students who do not participate in sports (non-athletes). Cross-tabulations and chi-square analysis showed both significant and non-significant difference between athletes and non-athletes with regard to determinants of high-risk sexual behaviour such as multiple partnerships, condom use, a history of STIs, partner's sex life, current sex life, casual sexual partners and the participants' first sexual debut. Hence the hypothesis was disproved. Although not all determinants of high-risk behaviour showed statistically significant differences, numerically male athletes in this study were shown to have a higher prevalence of risky behaviours such as multiple sexual partners and sexual debut at an early age, than non-athletes. This finding is in agreement with the exchange framework that suggests different sexual outcomes for athletes and non-athletes.

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An explanation for these differences could be that, according to the exchange theory, male athletes are expected to use their status to bargain for sex, and thus to have a higher rates of sexual activity, more partners, and an earlier onset of intercourse than non-athletes. The findings of this study are consistent with the contention that social status gained through athletic participation is being used to gain access to more sexual partners. Though the difference between athletes and non-athletes in this study is not statistically significant, male athletes report slightly higher sexual activity than

non-athletes, suggesting that they may employ sports-based resources to bargain for sex. However, this explanation should be accepted with caution, especially when comparisons are made within the athletic group without considering the level of sports participation of athletes. For example, descriptive statistics in hypothesis two and three, whereby elite athletes are compared with RSP and non-athletes respectively, shows that male students in sports tend to polarize into two groups: those who are less involved in sexual risk activities and those who are more involved. These results may therefore somewhat cloud the pattern of male athletic sexual behaviour.

These findings support those of Miller *et al.* 1998; Kokotailo *et al.* 1996; Faurie *et al.* 2004; Zill *et al.* 1995; Benedict, 1998; Timothy, 1998; Foreman *et al.* 1995; Nattiv and Puffer, 1991; and Chardler, 1999, who found that participation in sport is associated with higher levels of sexual activity and multiple sexual partnerships than non-participation. Their studies showed that non-athletes were likely to report one or no sexual partner compared to athletes who reported multiple partners and tend to experience sexual intercourse at a very early age.

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Although some studies found that the primary risks for athletes of contracting HIV infection are the same as those faced by non-athletes (CDC, 2000), athletes have been found to surpass the non-athlete comparison group in their access to sexual partners (Savage & Hilcomb, 1999; Parette-Watel *et al.,* 2004; Kokotailo *et al.,* 1996; Faurie *et al.,* 2004; Benedict, 1998; Davis, 1998; Foreman *et al.,* 1995; Nattiv &Puffer, 1991; Chardler, 1999). In their study of the relationship between student athletes' involvement in competitive sport and self reported number of sexual partners, Faurie *et al.* (2004) found that athletes reported significantly more sexual partners than other students, and that this effect was more significant among males. This confirms that a difference in sample characteristics could possibly explain the differences in sexual behaviours between athletes and non-athletes.

On the other hand, contrary to the findings of Faurie *et al.* (2004), Miller *et al.* (1998) argue that athletic involvement should be associated with lower frequency of sexual intercourse, fewer sex patterns and a later stage of first onset of sexual activity. This was not found to be true in this study when athletes were compared with their non-athletic counterparts. Also contrary to the view of Miller *et al. (*1998), several studies came to the conclusion that male athletes have a higher prevalence of high-risk sexual behaviours than male non-athletes (Savage & Hilcomb, 1999; Parette-Watel *et al.*, 2004; Kokotailo *et al.*, 1996; Faurie *et al.*, 2004; Benedict, 1998; Davis, 1998; Foreman *et al.*, 1995; Nattiv & Puffer, 1991; Chardler, 1999). These researchers found that sport participation is associated with higher levels of sexual activity, earlier age of sexual debut, as well as increased frequency of STIs and multiple sexual partners.

Savage & Hilcomb, 1999 and Perette-Watel *et al.*, 2004 argue that the reason why athletes surpass their non-athlete peers with regard to high-risk behaviour could be that athletes possess unique characteristics that set them apart from non-athletes. With regard to this, some authors argue that the status afforded to athletes by society may exacerbate the potentially harmful influence of sport in shaping cultural attitudes to athletes' risk behaviour (Benedict, 1998 and Davis, 1998). According to Benedict, (1998) some of the reasons that contribute to this kind of behaviour among athletes are because when the athletically gifted students make their transition from high school to university and from university to professional sports, they would have been conditioned by a gradual reduction in accountability and social standards to have sex without fear of consequences.

Benedict (1998) and Swift (1991) further argue that young athletes' transition from high school to university involves an extreme increase in exposure of the athletes' talents. They compete in front of thousands of fans and are even shown on television. Therefore, according to Benedict, the enthusiasm for young athletes pushes them to the apex of popularity on their campuses. They are worshipped by students, adored

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by institutions, pampered by coaches and often overlooked by professors who tolerate their pseudo student status. These factors convince young athletes that they are not subject to the same standards as their peers. Swift further states that the constant presentation with opportunities for sex, popularity among women and the behaviours of coaches and sponsors, all instill a unique sense of entitlement in the young athletes which increases their risks of contracting STIs and HIV.

Furthermore, tests of the first hypothesis also showed that although not all indicators of condom use were statistically significant, numerical summaries showed that male athletes are more inconsistent in using condoms during intercourse than male non-athletes. This finding was congruent with the research of Nattiv and Puffer (1991) and Kokotailo *et al.* (1996). The results of the present study show that when comparing athletes and non-athletes descriptively, athletes have a longer history of sexually transmitted infections (STIs) than non-athletes. This finding is in agreement with the findings of Kokotailo *et al.* (1996) and Nattiv & Puffer (1991) who found evidence of an increased frequency of STIs among student athletes compared to non-athletes. In addition, more athletes engaged in sexual risk-taking behaviours such as not being aware if their sexual partners were having sex with others and whether their sexual partners were HIV positive or not. The findings concur with the findings of Kokotailo *et al.* (1996) who assert that athletes are often perceived to be risk takers. Their findings, like those of this study, indicate that male athletes had a higher prevalence of high-risk behaviours than their male non-athlete counterparts. Lastly, the results of this study also reveal that there is a statistically significant difference between athletes and non-athletes with regards to first sexual debut.

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Although these findings do not completely support hypothesis one, there is something to be said about the level of significance after analysis. Indicators of sexual behaviour showed both statistically and numerical differences with regards to high-risk behaviours which are similar to the indicators originally predicted by the literature.

Difference between individuals and risk behaviour did not appear exactly as predicted; however, evidence of an interesting difference has been established.

5.2.2 Sexual behaviour among elite athletes and non-athletes

The second hypothesis states that there is no significant difference between elite male student athletes and male student non-athletes in relation to high-risk sexual behaviour. Individual high-risk sexual behaviour determinants and their indicators were assessed via a series of cross-tabulation and chi-square analyses, and overall age at first sexual debut was assessed via t-test analysis. Contrary to hypothesis one, where athletes, regardless of level of participation, were compared with non-athletes, statistical analysis of hypothesis two showed that non-athletes engaged in high-risk sexual behaviours in higher numbers when compared to their elite athlete peers.

In contrast to the results of hypothesis one and previous studies, the present study shows that, when results are stratified by level of participation (high level elite) and low level (recreational sports participants), not all athletes engage more frequently than non-athletes in high-risk behaviours. These results are consistent with those of Kokotailo *et al.* (1996) who found that when the results are stratified by gender, not all athletes engage in risky behaviours. This also confirms the claim that not all individuals in a given group participate in certain behaviours equally. Each individual behaves differently from the other (Faurie *et al.*, 2004). This could be examined further among non-athletes. For instance, while research has shown that being a young student is related to high-risk behaviour, not all youths engage in such behaviours. This became evident when the results showed that athletes were more at risk than non-athletes, but when specific groups of athletes were compared, it was clear that elite athletes were less likely to engage in certain risky behaviours than non-athletes and RSPs. These findings are also congruent with the control theory which suggests that sports should help to suppress sexual activity. Furthermore, according to this framework, involvement in athletics should be associated with a

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lower frequency of sexual activity, fewer sex partners and later age of onset of sexual activity. Contrary to this, cultural theory suggests that athletic participation should increase sexual activity.

Furthermore, with their study of substance use and other health risk behaviours in collegiate athletes, Kokotalia *et al.* (1996) showed that when results were stratified by gender, not all athletes engaged more frequently than non-athletes in high-risk behaviours. This notion was evident in this study when a group of athletes was stratified into level of participation and then compared with non-athletes. This therefore indicates that when groups are compared, some characteristics should be taken into consideration if the conclusion is to be generalised. This also calls for the same steps when assessing non-athletes. Thus, non-athletes should also be stratified according to characteristics such as social status, being celebrities such as musicians, TV presenters etc. These groups could therefore be compared with the group that holds the same level of social status as they do. Thus, a difference in sample characteristics could possibly explain the contradictory findings between different studies.

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The results of this study have shown that of the seven determinants of high-risk sexual behaviour examined in the current study, non-athletes, when compared with elite athlete respondents showed a higher participation in risky sexual behaviours such as inconsistent condom use, history of STIs, sexual partner sexual life, respondents' current sexual life, and casual sexual partners. Although these findings do not completely support hypothesis two, they suggest an underlying cause for the elite athletes' behaviour. Even though most of the determinants of high-risk sexual behaviour indicated that non-athletes surpass elite athletes, two indicators of high-risk sexual behaviour show statistically significant differences: age of first sexual experience and multiple sexual partners is higher for elite athletes. Descriptive statistics show that elite athletes participated in earlier sexual debut than their non-athlete counterparts. These findings generally are consistent with several studies

which argue that although young elite athletes have a healthier lifestyle, they are more likely to experience early sexual debut and have multiple partners than their non-athlete peers (McArdle *et al.*, 2000); Naylor *et al.*, 2001; Pate *et al.*, 2000; Jones-Palm & Palm, 2004; Anderson, *et al.*, 1991; Shields, 1995).

It has been suggested that participation in sports leads to a healthier lifestyle and wiser decisions (Anderson *et al.*, 1991; Shields, 1995). It is traditionally believed that participation in sports leads to a healthier lifestyle and less use of recreational drugs. Thus, increased physical activity not only creates a physically healthier person, but may also lead to changes in overall lifestyle (Shields, 1995). Shields (1995) found that high school students who participated in sports were less likely to smoke cigarettes and consume alcohol than students who did not participate in extra-curricular activities. These findings, while encouraging, ought to be verified. Nonetheless, these results support the notion that participation in sport promotes health and wellness. Anshel, (1998) on the other hand argues that despite the positive values of sports, the culture of a particular sport might socialize athletes into risky behaviours.

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With regard to the previous view, the results of t-test analysis on overall age of first sexual debut showed that elite athletes had a very early first sexual experience compared to non-athletes. Evidence of a relationship between early sexual debut and elite athletes confirmed previous studies (Nattiv & Puffer, 1991; Peretti-Watel *et al.*, 2004; Savage & Hilcomb, 1999; Kokotailo *et al.*, 1996; Faurie *et al.*, 1998; Benedict, 1998; Chandler, 1999; Miller *et al.*, 1998). Although the results of this study showed that elite athletes are less involved in risky behaviours, several studies show that there is a significant incidence of athletes' involvement in risky behaviours, including drug use, reckless driving, alcohol consumption and multiple sexual partners (Anshel, 1998; Jones-Palm & Palm, 2004; Nattiv & Puffer, 1991; Peretti-Watel *et al.*, 2004; Savage & Hilcomb, 1999; Kokotailo *et al.*, 1996; Faurie *et al.*, 1998; Benedict, 1998; Chandler, 1999; Miller *et al.*, 1998).

Nonetheless, despite the empirical studies that show the positive effects of sport, several researchers have identified a number of possible factors which contribute to the high-risk behaviour of elite athletes, such as greater confidence and a sense of entitlement (Benedict, 1998; Foreman *et al.,* 1995; Swift, 1991; Wallin, 2001; Davis, 1998). In agreement with this view, Kokotailo *et al.* (1996) assert that although there might be other factors, the prestige enjoyed by high level athletes enhances their attractiveness.

5.2.3 Sexual behaviour among male elite athletes and RSP

The third hypothesis states that there is no significant difference between male students and male student recreational sports participants (RSPs) with regards to high-risk sexual behaviour. In order to test this hypothesis, individual determinants of high-risk sexual behaviour (HRSB) were assessed through a series of cross-tabulation and chi-square analysis. Overall age of first sexual intercourse experience was assessed using t-test. Even though the null hypothesis was accepted because the results showed no statistical differences between elite athletes and RSPs in almost all the seven determinants of HRSB, numerical summaries showed that RSPs were more likely to engage in HRSB than their elite athletes counterparts.

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The findings of the present study contradict the findings of Faurie *et al.* (2004) who found in their study that within the student athletes group, athletes competing at a high level reported more sexual partners than individuals competing at low level athletics. Although the results of the present study did not show any significant difference between elite male athletes (high level) and RSP (low level) in relation to almost all determinants of HRSB, descriptive statistics indicated that RSP are more likely to participate in high-risk sexual behaviours than elite athletes. Claeys (1985) and Thorlindsson (1989) argue that such inconsistencies may be due to differences in

definitions and measures of sporting activity and its context, that is, institutionalised practice in a competitive setting should be distinguished from recreational physical exercise. This view suggests that it will be valuable to extend the current study to finding out the facts that contribute to the differences in the present sexual behaviour, since there is no comprehensive study that focuses specifically on risky behaviours between high level and low male athletes, apart from that of Faurie *et al.* (2004).

Although these findings do not completely support hypothesis three, there is something to be noted about the behaviour of the elite athletes. One indicator of high-risk sexual behaviour, which has a statistically non-significant difference but is much higher among elite athletes than RSP, is the indicator of age of first sexual experience. Descriptive statistics shows that elite athletes participate in earlier sexual debut than their RSP counterparts. The present findings are similar to the indicators originally predicted by the literature. The relationship between early sexual debut and elite athletes confirms the findings of previous studies (Nattiv & Puffer, 1991; Peretti-Watel *et al.* 2004; Savage & Hilcomb, 1999; Kokotailo *et al.* 1996; Faurie *et al.* 1998; Benedict, 1998; Chandler, 1999; Miller *et al.* 1998). Nonetheless, even though the differences between individuals and high sexual risk behaviour did not appear exactly as predicted; evidence of a relationship between elite athletes and early sexual debut has surfaced.

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5.2.4 Sexual behaviour among RSP and non-athletes

Finally, the fourth research hypothesis stated that there is no significant difference between male student recreational sports participants (RSPs) and male student non-athletes. As with the other hypotheses in this study, individual high-risk sexual behaviours were assessed via a series of cross-tabulation and chi-square analyses, and the overall age of first sexual debut was assessed by using the t-tests.

Risky sexual behaviours were assessed using the seven determinants of risky sexual behaviour and their indicators. Most of the results of the statistical analysis showed that there is no difference between RSP and non-athletes with regards to high-risk sexual behaviours. Nonetheless, descriptively, RSP participants engaged in high-risk sexual behaviours in higher numbers than non-athlete peers on the majority of HRSBs examined. The statistical difference only showed on two indicators, multiple partners and age of first sexual debut. RSPs appeared to engage in multiple partners and earlier sexual debut than non-athletes. Of the seven (7) HRSB determinants assessed in this study, RSPs showed higher participation in multiple partnerships, inconsistent condom use, and history of STIs, partner's sexual life, current sexual life, casual sex and age at first sexual intercourse.

These findings, as with the first hypothesis, confirm previous research that found that athletes engaged in more high-risk behaviours than non-athletes (Anshel, 1998; Palm & Palm, 2004; Nattiv & Puffer, 1991; Peretti-Watel *et al.*, 2004; Savage & Hilcomb, 1999; Kokotailo *et al.*, 1996; Faurie *et al.*, 1998; Benedict, 1998; Chandler, 1999; Miller *et al.*, 1998; Davis, 1998; Swift, 1991).

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5.3 Recommendations

Given the context in which male students find themselves, I feel it is necessary to make the following recommendations:

1. There is a need to develop prevention strategies that seek to reduce the vulnerability of male students. Many HIV/AIDS policies and strategic plans are in place in all government and non-governmental sectors. However, few national strategic plans include male students, especially athletes and other celebrity groups, as vulnerable groups. Thus the underlying causes of the vulnerability of male students to HIV/AIDS are seldom mentioned compared to those of their female student counterparts. In addition there are questions about the extent to which such policies are implemented. As long as the

vulnerability of male students, especially athletes, is not addressed, responses to reduce male students' vulnerability to HIV will be ineffective. I recommend that one effective and important way of developing more appropriate policies is to encourage the participation of male students in forums in their different educational institutions or sports clubs. Separate strategies should be developed to tackle this vulnerability, e.g. addressing athletes at their teams or clubs and non-athletes in places where they regularly congregate.

2. Male student athletes should be given conceptual tools and methods to help them to understand the social conditioning that may expose them to the risk of HIV infection.
3. We must develop ways of fostering the harmonious integration of men and women in our public institutions, with less accusations and conflicts between the genders.
4. More research should be conducted to inform policies and programs on male students and other groups.

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Current and prior research on athletes and non-athletes on the issue of high-risk sexual behaviour has uncovered many possible directions for future research that stems from the limitations of individual research studies as well as from inconsistencies in their findings. Aspects that require more research and analysis are:

- Male students' vulnerability: Hardly any research has been done on male students' vulnerability.
- Homosexual relationships: Even though in the present study only a small percentage of respondents showed that they enjoyed bisexual as well as homosexual relationships, anecdotal evidence revealed the presence of more sexual relationships between men, especially in single sex living environments. This is a little-explored terrain within many African societies and too little is known about the character of these relationships and what

possible role they can play in the transmission of HIV in the male student community and other communities at large.

- Research and analysis needs to be done in the area of the sexual behaviour and networking patterns in which male students participate, in relation to their risk of spreading as well as contracting the infection among their own peers.
- Male students should be encouraged to undertake a voluntary counseling test (VCT) because the knowledge of one's HIV status is an important step towards a prevention program. The knowledge of one's HIV status can help one to avoid becoming an HIV risk to others, as well as preventing the spread of the disease within the student communities and sport fraternities.
- Efforts should be made to identify the characteristics of male athlete and male non-athlete students, which can also be of greater importance in formulating appropriate policy.
- Further research should be conducted on socially and culturally diverse samples.
- In the light of the discrepancies in several studies on the findings on athletes and non-athletes' gender, social status and sexual behaviour, additional research that addresses the prevalence of high-risk sexual behaviours among athletes and non-athletes is needed.
- Although the differences between athlete and non-athlete high-risk sexual behaviour have not been examined to the fullest, results of the current study partially supported such a relationship, emphasizing the need for more research on this topic.
- Furthermore, the study of students should be extended to include other aspects of personality and/or behaviour that might also account for individual differences among the larger group of student athletes and non-athletes.
- Because the social circumstances of young students greatly influence their behaviours, more research must be done to understand the social climate of university students.

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- Future research would also benefit from examining each group (athletes and non-athletes) more closely. For instance, further examination of students' motives to engage or not engage in certain behaviours could provide insight into the lifestyle, choices, and attitudes of these particular groups.
- Future research could benefit, however, by examining non-athlete individuals who hold different social and cultural statuses. Examination of these individuals could highlight the ways in which they are similar to, or different from, their athletic and other non-athlete peers.

5.4 Implications of the Study

The present study suggests that not all students participate in risky sexual behaviours. It also reveals that multiple partners and early sexual debut are the two primary behaviours where more education and intervention is necessary. Furthermore, this study suggests that coaches and administrators must assess the effectiveness of their risk behaviour prevention programmes and their efforts to enforce rules and regulations. With regards to sports participation, athletic activities provide many opportunities to promote healthy behaviours. Therefore, sport organisations ought to assess the needs of their athletes and provide effective interventions in a timely manner.

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5.5 Limitations of the Study

The current research study had several limitations related to the generalisation of the findings. Firstly, the diversity of the sample was an issue. The sample of the present study was comprised of university male students with diverse values, experiences, and traditions, which was not addressed. Cultural barriers were also an issue to be considered. Talking openly about sex-related matters is not acceptable in the Botswana culture. In terms of values and experiences, university students represent a special and privileged group. Many youths in universities have similar educational

aspirations and, while no two people have the same life experiences, many students are influenced by the university environment as a whole. In this setting, many students experience living away from their families, making their own decisions, and being exposed to a fairly liberal environment.

Secondly, although the total sample size of 235 was adequate for statistical analysis, perhaps a larger sample could have been more representative of the population of male students as a whole. For example, while cross-tabulations and t-tests indicated that the sub-samples of RSP and that of non-athletes were adequate for examination, the elite athletes' subgroup was minimal; a larger group in this category could have yielded more representative results.

Thirdly, while much research has been conducted on student risk behaviours in the domains of drug use, tobacco, alcohol, reckless driving, aggressiveness, acquaintance rape, the abuse of women and sexual behaviour (Brooks *et al.*, 2003; Carroll *et al.*, 2002; Roberts & Ryan, 2002; Nattiv & Puffer, 1991; Peretti-Watel *et al.*, 2004; Savage & Hilcomb, 1999; Kokotailo *et al.*, 1996; Faurie *et al.*, 1998; Benedict, 1998; Chandler, 1999; Miller *et al.*, 1998), the study of a wider variety of behaviours across other domains could also have contributed to the generalisability of the present findings.

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Finally, while the method of data collection was useful in many ways, it was also a limiting factor in the study. Because self-report questionnaires were used, it was very difficult to determine how truthful students were in answering the survey items. This is especially an issue when participants, like those in the current study, are asked sensitive questions. Purposeful distortion (deliberately giving false information in a survey) was also possible in this study. People may either exaggerate or minimize their sexual activity. For example, during data analysis, it was found that some participants, who indicated that they did not engage in sexual intercourse, had

indicated the number of times they had had sexual intercourse within a specified time frame.

5.6 Conclusions

Despite this present study's sample size, one must be cautious regarding the generalisation of these results. The athletes and non-athletes' sexual behaviour examined in this study might only be representative of the students at the University of Botswana or among students at Botswana tertiary education institutions, and not to other countries and other institutions. It should be also noted that non-athlete participants in the current study were selected to be part of the sample because several studies have shown that they were most likely to engage in high-risk sexual behaviours. This step was taken to examine distinct groups, based on findings or previous research conducted elsewhere among student athletes and student non-athletes, as stated in the review of literature of the present study.

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The current study confirmed several outcomes of related research on university students and high-risk sexual behaviour, including finding that sexuality and high-risk sexual behaviour among students are related. That is, all the student categories engage in certain risky behaviours, with student athletes showing more risk than non-athlete students. Despite this, the relationship between risky behaviours and sports participation is not a clear one (Naylor, 2001). Caution should be taken, however, in making this assumption. While research supports an association between being an athlete and high-risk behaviour, other internal and environmental factors affecting the students as a segment of the youth should be taken into consideration in order to gain an understanding of the students' overall lifestyle. Thus, if the impact of sports on risky sexual behaviour is largely mediated by several bargaining processes, the same dynamics presumably applies to other status-enhancing extracurricular activities. Any personal resources gained through an academic or arts activity should have bargaining implications, with differences in the magnitude of the effect reflecting the status of the activity.

The literature on the behaviour of athletes shows a lot of contradictions. Most studies do not separate groups of athletes according to different characteristics. This study revealed that athletes behave differently within their groups. Thus, it was not the rate of engagement in high-risk behaviours that differed according to social status, but rather different types of high-risk sexual behaviours in which athletes and non-athletes engaged. While previous studies and the results of this present study showed that when a general group of athletes was compared with non-athletes, athletes seemed to engage more in risky behaviours than non-athletes, this finding should be treated with caution. This is because the results of the present study show that within an athlete population, low level participants engage in more risky behaviours than high level (elite athletes) respondents on a number of indicators. And when RSPs are compared with non-athletes, RSPs show that they engage more in high-risk sexual behaviours than non-athletes.

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The findings of the present study do not support the control theory, which has proven highly effective in explaining other young peoples' risk behaviours (Barnes & Farrell, 1992), but suggest instead that there is something unique about the intersection of sports and sexual behaviour which calls for an alternative theoretical approach. It is therefore concluded in the present study, that athletic participation and sexual activity are distinct from the more general concepts of social participation and problem behaviour. Unlike other extracurricular activities, the culture of sport is steeped in traditions, rooted deeply in cherished notions of discipline, manhood, and structured aggression. And unlike other risky behaviours, sexual activity involves negotiated patterns of interaction and resource exchange with others.

Nonetheless, it is interesting to find that literature concerning health behaviours of athletes remains controversial. While other researchers argue that young elite athletes have a healthier lifestyle than non-athletes, other studies came to the opposite conclusion, viz. that athletes are involved in risky behaviours such as drug abuse,

risky driving or unsafe sex. These inconsistencies support the view of Claeys (1985) and Thorlindsson (1989), who argue that the possible explanations of this may be due to differences in definitions and measures of sporting activity and its context. Nonetheless, one encouraging finding was that not all athletes engage in high-risk behaviours.

A noteworthy extension of the research has also been done. The main objective of the study was met, as patterns of sexual behaviour that could put students at risk of contracting STIs, including HIV/AIDS were examined, classified, and found to be related in some ways, to high-risk sexual behaviours among students. Current findings have demonstrated the need for further research on the sexuality of students as a diverse group of individuals. Few, if any other research studies have empirically examined high-risk sexual behaviour patterns among male students of the University of Botswana. The present study has successfully done so, adding supporting theory to scientific research, as well as opening the door to an important topic in the study of students' sexuality.

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APPENDIX A: STUDY QUESTIONNARE

Questionnaire NO:

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Department of Sport, Recreation and Exercise Science

SEXUAL BEHAVIOUR SURVEY

The attached questionnaire is part of the proposed research into a comparative study on high-risk sexual behaviour of male student elite athletes, male student recreational sports participants and male student non-athletes at the University of Botswana. You will notice that we do not ask for name, and neither are the questionnaires numbered. The answers you give will form part of a large database that cannot be used to identify individuals. For this reason we ask you to be entirely honest in answering.

We are going to ask you some personal questions and we need your frank and honest responses. Your answers are confidential and will be used only for statistical reports. The findings will be used to further improve the quality of our knowledge and increase our effectiveness in the fight against the disease.

Please do not write your name on the questionnaire. When answering the questions, please circle the number of your response or print your response neatly in the block provided. Follow the instructions and complete all questions that are applicable to you

PLEASE ANSWER ALL THE QUESTIONS

WE SINCERELY APPRECIATE THE TIME YOU SPEND ON THIS QUESTIONNAIRE AND THANK YOU FOR YOUR PARTICIPATION AND CONTRIBUTION TO THIS RESEARCH PROJECT.

SECTION A: DEMOGRAPHIC DATA

1. What is your home language?

English	1
Setswana	2
Ikalanga	3
Sesarwa	4
Shiyeyi	5
Thimbukushu	6
Setswapong	7
Sesubiya	8
Sekgalagadi	9
Swazi	10
Ndebele	11
Otjiherero	12
Other (PLEASE SPECIFY IN THE SPACE BELOW)	

2. Are you a Botswana citizen?

Yes	1	**GO TO QUESTION 3**
No	2	**GO TO QUESTION 4**

3. **Only answer if you are a Botswana citizen.**
What is your area of permanent residence?

Central District	1
North East District	2
Kgalagadi District	3
Kweneng District	4
Southern District	5
Kgatleng District	6
Ghanzi District	7
North-West District	8
South – East District	9

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4. **Only answer if you are NOT a Botswana citizen.**
What is your country of permanent residence?

Namibia	1
Zimbabwe	2
Mozambique	3
Malawi	4
Angola	5
Uganda	6
Kenya	7
Zambia	8
South Africa	9
Nigeria	10
Other (PLEASE SPECIFY BELOW)	

5. Are you a full-time or part-time student?

Full-time	1
Part-time	2

6. Which faculty are you registered with and what is your year level of study?

SELECT THE MOST APPROPRIATE RESPONSE FROM THE TABLE BELOW. IF YOU ARE UNSURE OF YOUR FACULTY REGISTRATION, CONSULT YOUR STUDENT CARD.

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Faculty	**Prelim & Undergraduate**				**5th or 6th Year + Postgraduate**			**Postgraduate Degree** *Enrolment*
	I	**II**	**III**	**IV**	**V**	**VI**	**Diploma Certificate**	**MA / M.Ed / LLM / M.Phil MSc / PhD / D.Phil / LLD**
Engineering and Technology	a	B	C	d	e	f	g	I
Social Sciences	a	B	C	d	e	f	g	I
Business	a	B	C	d	e	f	g	I
Humanities	a	B	C	d	e	f	g	I
Science	a	B	C	d	e	f	g	I
Education	a	B	C	d	e	f	g	I

Prelim = 1st Year undergraduate // 5th/6th Year refer to degree courses which go beyond 4 years.

7. What degree or diploma are you currently registered for? WRITE IN THE SPACE PROVIDED BELOW.

8. How old are you?

17 – 19 years	1
20 – 22 years	2
23 – 25 years	3
26 – 28 years	4
29 – 31 years	5
32 – 33 years	6
34 – 36 years	7
37 – 39 years	8
40 – 42 years	9

9. What is your religious affiliation?

Roman Catholic	1
Anglican	2
Apostolic	3
Methodist	4
Baptist	5
Lutheran	6
Seventh Day Adventist	7
Jehovah's Witness	8
Islamic / Muslim	9
Hindu	10
Buddhist	11
African Traditional	12
Other (please specify)	

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10. Where do you live at present, while you are studying?

With my parents / family	1
In an on-campus residence	2
In an off-campus residence	3
I board with relatives	4
I board with people	5
I share rented accommodation	6
I live alone in rented accommodation	7
Other (PLEASE SPECIFY IN THE SPACE BELOW)	

11. What is your marital status?

Married/ living together	1
Single/ unmarried	2
Divorced	3
Widowed	4

12. Which of the following best describes your living arrangements?

Living with husband/wife	1
Living with parents/relatives	2
Living with roommates	3
Living alone	4
Co-habitation with partner of the same sex	5
Co-habitation with partner of the opposite sex	6
Other (PLEASE SPECIFY IN THE SPACE BELOW)	

13. Do you play sports?

Yes	1
No	2

- Question 14 to 17 must ONLY be answered by students who participate in sports
- If you have never participated in sports, proceed to SECTION B.

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14. If YES, which sport code?

15. What is your level of participation?

International	1
National	2
Varsity	3
Regional	4
Club level	5
Social/informally	6

16. At what age did you start participating in sports?

17. How long have you been participating in sports?

SECTION B: LIFE STYLE

The following questions are of a personal nature and deals with your sexual life. We implore you to answer these questions honestly. Please be assured that the information we receive from you will remain confidential.

18. Which of the following best describes your sexual preference/orientation?

I prefer/ to have sex with women only	1
I prefer to have sex with men only	2
I prefer to have sex with both men and women	3

19. Have you ever had sexual intercourse (vaginal, anal or oral sex)?

Yes	1	
No	2	

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20. How old were you when you had sexual intercourse for the first time?

Age in years (PLEASE SPECIFY AGE IN BLOCK)	

21. How do you describe your current sexual life?

I have only one sexual partner	1
I have more than one sexual partner	2
I do not currently have a partner	3

22. Did you have any vaginal, oral or anal sex during the past twelve months?

Yes	1
No	2

23. How many times did you and your **primary partner** have sex (vaginal/oral/anal) during the past twelve months?

None	0
One	1
Two	2
Three	3
More … (SPECIFY NUMBER)	

24. What was the nature of these sexual encounters with your **primary partner?** SELECT ONE ANSWER ONLY.

Male-to-female (heterosexual	1
Male-to-male (homosexual)	2

25. How many of these encounters with your **primary partner** involved **oral** sex?

None	0
One	1
Two	2
Three	3
More … (SPECIFY NUMBER)	

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26. If these encounters were male-to-female/male-to-male, how many involved **anal** sex with your **primary partner**?

None	0
One	1
Two	2
Three	3
More … (SPECIFY NUMBER)	

27. How often in male-to-female/male-to-male sexual encounters did you use condoms with your **primary partner** during the past twelve months?

Always (use condoms)	1
More than half the time	2
Less than half the time	3
Never (use condoms)	4

28. When you used condoms in a male-to-female/male-to-male sexual encounter, did it ever break?

Yes, the condom broke **every time**	1
Yes, the condom broke **sometimes**	2
No, the condoms never broke	3

29. When did the condom/s break? MORE THAN ONE ANSWER CAN BE PROVIDED.

While putting it on	1
During intercourse	2
While removing it	3

30. How would you describe your primary partner's sexual life?

My primary partner only has sex with me	1
My primary partner has sex with me and others	2
I am not aware if my primary partner has other sexual relations	3

31. How many other partners have you had sex with during the past twelve months?

None	0
One	1
Two	2
Three	3
More … (SPECIFY NUMBER)	

32. How many of these encounters with **other sexual partners** involved **oral** sex?

None	0
One	1
Two	2
Three	3
More … (SPECIFY NUMBER)	

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33. How many of these encounters with **other sexual partners** involved **anal** sex?

None	0
One	1
Two	2
Three	3
More…(SPECIFY NUMBER)	

34. How often did you use a condom or a dental dam with other sexual partners during the past twelve months?

Always	1
More than half the time	2
Less than half the time	3
Never	4

35. If heterosexual or homosexual, where do you get your condoms? TICK OFF WHERE APPLICABLE. MORE THAN ONE ANSWER CAN BE PROVIDED.

Student Health Centre	1
Vendor machine	2
Friends	3
Store	4
Other	5

36. Did you suggest using a condom with your partner

Yes	1
No	2

37. Do you think that you will use a condom when having sex in the future?

Yes	1
No	2

38. How many sexual partners do have currently?

None	0
One	1
Two/three	2
Four or more	3

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39. Before this study, had you ever had sex with someone you had just met?

Yes	1
No	2

40. How many sexual partners have you had in the last twelve months?

None	0
One	1
	2
Three	3
Four	4
Five or more	5

41. Was one of your partners….?

Your wife	1
Regular sexual partner	2
Casual sex partner	3
Other (please specify)	4

42. Were any of your sexual partners HIV positive?

Yes	1
No	2
Don't know	3
I would prefer not to answer this question	4

43. In the past twelve months have you ever decreased your number of sexual partners?

Yes	1
No	2

44. Have you ever paid for sex?

Yes	1
No	2

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SECTION C: SEXUAL HEALTH

The following questions are health-related and would assist us in identifying any risk behaviours associated with your sexual health. Confidentiality is guaranteed.

45. During the past two years were you diagnosed with any of the following sexually transmitted infections (STIs)? CIRCLE THE NUMBER WHERE APPLICABLE. MORE THAN ONE ANSWER CAN BE PROVIDED.

STI	DESCRIPTION	
Gonorrhoea	Dripping discharge or slightly cloudy discharge or pussy discharge of pus from penis within 3 days of infection, burning sensation when urinates.	1
Herpes	Blisters on genitals, burning sensation around genitals, thighs, buttocks, abdomen; blisters eventually burst discharging pus, blood or watery fluids, painful open sores.	2
Candida	Thrush, itchiness and white or cream coloured discharge. Can occur in people's mouths & intestines.	3
Pubic lice	Nits and lice just under skin and on pubic hair.	4
Scabies	Itchiness, type of rash, eczema on genitals.	5
Chlamydia	Burning sensation during urination, unusual discharge, abdominal pain.	6
Syphilis	Sores on the penis, rashes can occur on whole body.	7
Genital warts	Warts on penis; symptoms: itching, burning pain and tenderness	8
Trichomonas	Painful urination, can lead to inflammation of prostate gland in men	9
Chancroid	Painful ulcers starts as pimples on the outside of the penis, swollen glands in groin area, leads to painful ulcers in groin area.	10

46. If you circled any of the responses in **Question 46**, did you receive treatment for the STI?

Yes	1
No	2

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47. Who treated you for the STI?
CIRCLE THE NUMBER WHERE APPLICABLE. MORE THAN ONE ANSWER CAN BE PROVIDED.

Traditional Healer	1
Campus Nurse	2
Private Doctor	3
Pharmacist	4
Other	5

48. If you did not receive treatment for the STI how did you deal with it? PROVIDE DETAILS IN THE SPACE BELOW.

49. When was the last time you had a sexually transmitted infection?

Never had an STI	0
Last week	1
Last month	2
A year ago	3
More than a year ago	4

50. Indicate your current position around your HIV status. **TICK ONE RESPONSE ONLY.**

I did not request an HIV blood test during the past year and therefore I do not know my HIV status	1
I went for an HIV blood test during the past year and according to the results I am HIV negative	2
I went for an HIV blood test and according to the results I am HIV positive	3
Don't know; I was tested, but did not go back for the results	4

51. In the last 12 months have you **felt like** you wanted to do anything to decrease your risk of infection with HIV?

Yes	1
No	2

52. In the last 12 months have you **tried** to do anything to decrease your risk of infection with HIV?

Yes	1
No	2

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53. What did you try to do to decrease your risk of infection with HIV? CIRCLE THE NUMBER WHERE APPLICABLE. MORE THAN ONE ANSWER CAN BE SELECTED.

Abstain from sex	1
Have less partners	2
Used a condom for the first time	3
Used a condom more often	4
Tried to get partner to change behaviour	5
Other (please specify)	

54. How would you rate your chances of getting HIV/AIDS?

Most likely	1
Likely	2
Unlikely	3

SECTION D: HUMAN IMMUNODEFICIENCY VIRUS

55. From which sources have you learnt about HIV/AIDS? MORE THAN ONE ANSWER CAN BE SELECTED.

Courses or programmes offered at UB	1
UB news and media	2
Pamphlets and brochures at Student Counselling on campus	3
From a lecturer within an academic programme	4
From the Health Clinic (doctor/nurse) on campus	5
From a Health Clinic (doctor/nurse) off campus	6
From the newspapers and media (TV, radio, magazines)	7
From my parents	8
From my friends	9
Other (please specify)	

56. The following are statements related to people living with HIV/AIDS. Indicate your response on a scale of 1 to 5 with **"1" being "Strongly Agree"** and **"5" being "Strongly Disagree"**. CIRCLE THE NUMBER OF YOUR RESPONSE.

1 Strongly Agree← →Strongly disagree 5

1. I will sleep in the same room as someone with HIV/AIDS.	1	2	3	4	5
2. I will share a meal with someone who is HIV positive.	1	2	3	4	5
3. I will swim in the same swimming pool with someone who is HIV positive	1	2	3	4	5
4. I will treat a family member with HIV/AIDS well.	1	2	3	4	5
5. I will not get infected by being in the same room as an infected person.	1	2	3	4	5

57. Indicate whether you agree/disagree with following statements about addressing HIV/AIDS at UB.

	Agree	Disagree
1. UB's Student Health Services should offer free confidential HIV testing.	1	2
2. UB's Student Counselling should offer confidential HIV/AIDS counselling to students.	1	2
3. Students who are HIV-positive or have AIDS should not be prevented from studying at UB.	1	2
4. Loans, bursaries and scholarships must be awarded at UB irrespective of ones HIV/AIDS status.	1	2
5. Students should be required to have an HIV test prior to admission to UB.	1	2
6. Condoms should be freely available to all students in easily accessible locations on UB campuses.	1	2

58. Are you aware that UB has an HIV/AIDS policy?

Yes	1
No	2

59. Have you read the university's HIV/AIDS policy?

Yes	1
No	2

60. Do you think UB is adequately addressing HIV/AIDS on campus?

Yes	1
No	2

61. What else do you think UB authorities should do to address HIV/AIDS on campus?

1.
2.
3.
4.
5.

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PLEASE CHECK THAT YOU HAVE ANSWERED ALL THE QUESTIONS THAT APPLY TO YOU, BEFORE HANDING THE QUESTIONNAIRE BACK TO THE RESEARCH ASSISTANT.

WE APPRECIATE YOUR HONESTY IN COMPLETING THE QUESTIONNAIRE. THANK YOU FOR MAKING TIME AVAILABLE TO PARTICIPATE IN OUR SURVEY.

APPENDIX B: CROSSTABULATION ANALYSIS TABLES

TABLE 2 CONDOM BROKE

Crosstab

			do you play sports?		
			yes	no	Total
CONDOM_BROKE	Condom broke	Count	45	19	64
		% within do you play sports?	32.4%	23.8%	29.2%
	Never broke	Count	94	61	155
		% within do you play sports?	67.6%	76.3%	70.8%
Total		Count	139	80	219
		% within do you play sports?	100.0%	100.0%	100.0%

Table 3 last time you had sexually transmitted infection?

Crosstab

			do you play sports?		
			yes	no	Total
last time you had sexually transmitted infection?	never had STI	Count	97	63	160
		% within do you play sports?	67.4%	69.2%	68.1%
	last week	Count	0	1	1
		% within do you play sports?	.0%	1.1%	.4%
	last month	Count	13	12	25
		% within do you play sports?	9.0%	13.2%	10.6%
	a year ago	Count	15	9	24
		% within do you play sports?	10.4%	9.9%	10.2%
	more than year ago	Count	19	6	25
		% within do you play sports?	13.2%	6.6%	10.6%
Total		Count	144	91	235
		% within do you play sports?	100.0%	100.0%	100.0%

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TABLE 4 description of primary partner's life

Crosstab

			do you play sports?		
			yes	no	Total
description of primary partner's life	only has sex with me	Count	39	23	62
		% within do you play sports?	27.5%	27.4%	27.4%
	has sex with me and others	Count	24	9	33
		% within do you play sports?	16.9%	10.7%	14.6%
	not aware if my primary partner has other sexual partners	Count	79	52	131
		% within do you play sports?	55.6%	61.9%	58.0%
Total		Count	142	84	226
		% within do you play sports?	100.0%	100.0%	100.0%

TABLE 5 were any of your sexual partners HIV positive?

Crosstab

			do you play sports?		
			yes	no	Total
were any of your sexual partners HIV positive?	yes	Count	1	1	2
		% within do you play sports?	.7%	1.2%	.9%
	no	Count	44	18	62
		% within do you play sports?	30.8%	21.2%	27.2%
	3	Count	92	60	152
		% within do you play sports?	64.3%	70.6%	66.7%
	4	Count	6	6	12
		% within do you play sports?	4.2%	7.1%	5.3%
Total		Count	143	85	228
		% within do you play sports?	100.0%	100.0%	100.0%

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TABLE 6 decreased number of sexual partners past twelve months

Crosstab

			do you play sports?		
			yes	no	Total
decreased number of sexual parners past twelve months	yes	Count	90	55	145
		% within do you play sports?	63.8%	64.7%	64.2%
	no	Count	51	30	81
		% within do you play sports?	36.2%	35.3%	35.8%
Total		Count	141	85	226
		% within do you play sports?	100.0%	100.0%	100.0%

TABLE 7 number of sexual partners in last 12 months

Crosstab

			groups of respondents		
			Elites	non-athletes	Total
number of sexual partners in last 12 months	none	Count	5	17	22
		% within groups of respondents	10.0%	18.7%	15.6%
	one	Count	11	31	42
		% within groups of respondents	22.0%	34.1%	29.8%
	more than one	Count	34	43	77
		% within groups of respondents	68.0%	47.3%	54.6%
Total		Count	50	91	141
		% within groups of respondents	100.0%	100.0%	100.0%

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TABLE 8 do you think you will use condom in future?

Crosstab

			groups of respondents		
			Elites	non-athletes	Total
do you think you will use condom in future?	yes	Count	50	86	136
		% within groups of respondents	100.0%	94.5%	96.5%
	no	Count	0	5	5
		% within groups of respondents	.0%	5.5%	3.5%
Total		Count	50	91	141
		% within groups of respondents	100.0%	100.0%	100.0%

TABLE 9 last time you had sexually transmitted infection?

Crosstab

			groups of respondents		
			Elites	non-athletes	Total
last time you had sexually transmitted infection?	never had STI	Count	34	63	97
		% within groups of respondents	68.0%	69.2%	68.8%
	last week	Count	0	1	1
		% within groups of respondents	.0%	1.1%	.7%
	last month	Count	6	12	18
		% within groups of respondents	12.0%	13.2%	12.8%
	a year ago	Count	7	9	16
		% within groups of respondents	14.0%	9.9%	11.3%
	more than year ago	Count	3	6	9
		% within groups of respondents	6.0%	6.6%	6.4%
Total		Count	50	91	141
		% within groups of respondents	100.0%	100.0%	100.0%

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TABLE 10 were any of your sexual partners HIV positive

Crosstab

			groups of respondents		
			Elites	non-athletes	Total
were any of your sexual partners HIV positive?	yes	Count	0	1	1
		% within groups of respondents	.0%	1.2%	.7%
	no	Count	16	18	34
		% within groups of respondents	32.0%	21.2%	25.2%
	3	Count	32	60	92
		% within groups of respondents	64.0%	70.6%	68.1%
	4	Count	2	6	8
		% within groups of respondents	4.0%	7.1%	5.9%
Total		Count	50	85	135
		% within groups of respondents	100.0%	100.0%	100.0%

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TABLE 11 decreased number of sexual partners past twelve months

Crosstab

			groups of respondents		
			Elites	non-athletes	Total
decreased number of sexual parners past twelve months	yes	Count	34	55	89
		% within groups of respondents	68.0%	64.7%	65.9%
	no	Count	16	30	46
		% within groups of respondents	32.0%	35.3%	34.1%
Total		Count	50	85	135
		% within groups of respondents	100.0%	100.0%	100.0%

TABLE 12 do you think you will use condom in future?

Crosstab

			groups of respondents		
			Elites	RSP	Total
do you think you will use condom in future?	yes	Count	50	90	140
		% within groups of respondents	100.0%	95.7%	97.2%
	no	Count	0	4	4
		% within groups of respondents	.0%	4.3%	2.8%
Total		Count	50	94	144
		% within groups of respondents	100.0%	100.0%	100.0%

TABLE 13 last time you had sexually transmitted infection?

Crosstab

			groups of respondents		
			Elites	RSP	Total
last time you had sexually transmitted infection?	never had STI	Count	34	63	97
		% within groups of respondents	68.0%	67.0%	67.4%
	last month	Count	6	7	13
		% within groups of respondents	12.0%	7.4%	9.0%
	a year ago	Count	7	8	15
		% within groups of respondents	14.0%	8.5%	10.4%
	more than year ago	Count	3	16	19
		% within groups of respondents	6.0%	17.0%	13.2%
Total		Count	50	94	144
		% within groups of respondents	100.0%	100.0%	100.0%

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TABLE 14 description of primary partner's life * groups of respondents

Crosstab

			groups of respondents		
			Elites	RSP	Total
description of primary partner's life	only has sex with me	Count	16	23	39
		% within groups of respondents	32.0%	25.0%	27.5%
	has sex with me and others	Count	10	14	24
		% within groups of respondents	20.0%	15.2%	16.9%
	not aware if my primary partner has other sexual partners	Count	24	55	79
		% within groups of respondents	48.0%	59.8%	55.6%
Total		Count	50	92	142
		% within groups of respondents	100.0%	100.0%	100.0%

TABLE 15 were any of your sexual partners HIV positive?

Crosstab

			groups of respondents		
			Elites	RSP	Total
were any of your sexual partners HIV positive?	yes	Count	0	1	1
		% within groups of respondents	.0%	1.1%	.7%
	no	Count	16	28	44
		% within groups of respondents	32.0%	30.1%	30.8%
	3	Count	32	60	92
		% within groups of respondents	64.0%	64.5%	64.3%
	4	Count	2	4	6
		% within groups of respondents	4.0%	4.3%	4.2%
Total		Count	50	93	143
		% within groups of respondents	100.0%	100.0%	100.0%

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TABLE 16 sexual intercourse during last twelve months?

Crosstab

			groups of respondents		
			Elites	RSP	Total
sexual intercourse during last twelve months?	yes	Count	45	79	124
		% within groups of respondents	90.0%	84.0%	86.1%
	no	Count	5	15	20
		% within groups of respondents	10.0%	16.0%	13.9%
Total		Count	50	94	144
		% within groups of respondents	100.0%	100.0%	100.0%

TABLE 17 number of sexual partners in last 12 months

Crosstab

			groups of respondents		
			RSP	non-athletes	Total
number of sexual partners in last 12 months	none	Count	9	17	26
		% within groups of respondents	9.6%	18.7%	14.1%
	one	Count	27	31	58
		% within groups of respondents	28.7%	34.1%	31.4%
	more than one	Count	58	43	101
		% within groups of respondents	61.7%	47.3%	54.6%
Total		Count	94	91	185
		% within groups of respondents	100.0%	100.0%	100.0%

TABLE 18 CONDOM BROKE * groups of respondents

Crosstab

			groups of respondents		
			RSP	non-athletes	Total
CONDOM_BROKE	Condom broke	Count	29	19	48
		% within groups of respondents	31.9%	23.8%	28.1%
	Never broke	Count	62	61	123
		% within groups of respondents	68.1%	76.3%	71.9%
Total		Count	91	80	171
		% within groups of respondents	100.0%	100.0%	100.0%

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TABLE 19 last time you had sexually transmitted infection?

Crosstab

			groups of respondents		
			RSP	non-athletes	Total
last time you had sexually transmitted infection?	never had STI	Count	63	63	126
		% within groups of respondents	67.0%	69.2%	68.1%
	last week	Count	0	1	1
		% within groups of respondents	.0%	1.1%	.5%
	last month	Count	7	12	19
		% within groups of respondents	7.4%	13.2%	10.3%
	a year ago	Count	8	9	17
		% within groups of respondents	8.5%	9.9%	9.2%
	more than year ago	Count	16	6	22
		% within groups of respondents	17.0%	6.6%	11.9%
Total		Count	94	91	185
		% within groups of respondents	100.0%	100.0%	100.0%

TABLES 20 Were any of your sexual partners HIV positive?

Crosstab

			groups of respondents		
			RSP	non-athletes	Total
were any of your sexual partners HIV positive?	yes	Count	1	1	2
		% within groups of respondents	1.1%	1.2%	1.1%
	no	Count	28	18	46
		% within groups of respondents	30.1%	21.2%	25.8%
	3	Count	60	60	120
		% within groups of respondents	64.5%	70.6%	67.4%
	4	Count	4	6	10
		% within groups of respondents	4.3%	7.1%	5.6%
Total		Count	93	85	178
		% within groups of respondents	100.0%	100.0%	100.0%

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TABLE 21 decreased number of sexual partners past twelve months

Crosstab

			groups of respondents		
			RSP	non-athletes	Total
decreased number of sexual parners past twelve months	yes	Count	56	55	111
		% within groups of respondents	61.5%	64.7%	63.1%
	no	Count	35	30	65
		% within groups of respondents	38.5%	35.3%	36.9%
Total		Count	91	85	176
		% within groups of respondents	100.0%	100.0%	100.0%

TABLE 22 Sexual intercourse during last twelve months

Crosstab

			groups of respondents		
			RSP	non-athletes	Total
sexual intercourse during last twelve months?	yes	Count	79	68	147
		% within groups of respondents	84.0%	75.6%	79.9%
	no	Count	15	22	37
		% within groups of respondents	16.0%	24.4%	20.1%
Total		Count	94	90	184
		% within groups of respondents	100.0%	100.0%	100.0%

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APPENDIX C: UNIVERSITY OF BOTSWANA RESEARCH PERMIT

University of Botswana
Office of Research and Development

Private Bag UB 00708
Gaborone
Botswana

Telephone: (267) – 3552901/2900
Fax: (267) – 3957573
Telex: 2429BD
E-mail: maxzondei@mopipi.ub.bw
PA Email: jongmang@mopipi.ub.bw

MEMORANDUM

REF: **UBR/RES 3/7 I**

TO: **Deans / HODS / Director Sports & Culture**

FROM: **Prof. Mazonde, Director Research & Development**

DATE: **February 6th, 2006**

SUBJECT: **Graduate student permission to interview students at UB**

A Motswana graduate student, Ms. Molly K. Robert, who is enrolled in the Masters programme in Community Health Sciences at the University of the Western Cape, has been granted a research permit by the Ministry of Health to conduct the following project "A comparative study on high-risk sexual behaviour patterns of male students at the University of Botswana." She has requested the University's permission to access 250 male students to participate in her study.

The ORD has reviewed her protocol and have no problems in facilitating the research project for Ms. Robert. She will be required to receive informed consent from the students involved and will also provide ORD with a complete report of her study on completion for deposit in the Library.

Ms. Robert is aware of the current disturbances on campus, and has agreed that she may have to wait until things settle down before she begins administration of her questionnaire.

If you have any questions concerning this, please contact Dr. Jose Jackson-Malete at 355-2900.

Regards,

Prof. Mazonde
Director Research & Development

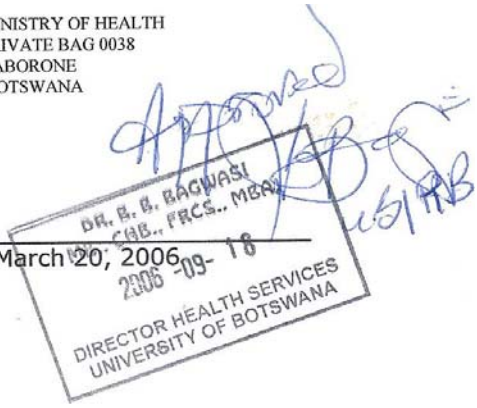
CC: Molly Roberts
Prof. Ramahobo, DVCSA
SRC, President

APPENDIX D: BOTSWANA MINISTRY OF HEALTH RESEARCH PERMIT

TELEPHONE: 3632000
FAX:3914467
TELEGRAMS:RABONGAKA
TELEX: 2818 CARE BD

MINISTRY OF HEALTH
PRIVATE BAG 0038
GABORONE
BOTSWANA

REPUBLIC OF BOTSWANA
MINISTRY OF HEALTH



REFERENCE No: PPM&E 13/18 PS Vol I (15) March 20, 2006

Molly Robert
12 Sybrand Mankandan
Dorp Straat
Stellenbosch 7600
South Africa
Tel – 72889179

Research Permit: "A Comparitive study on high risk sexual behaviour patterns of male students at the University of Botswana"

Your application for a research permit for the above stated research protocol refers. We note that you have satisfactorily revised the protocol as per our suggestions. **Permission is therefore granted to conduct the above-mentioned study.** This approval is valid for a period of 1 year, effective March 20, 2006.

This permit does not however give you authority to collect data from the selected institution without prior approval from the necessary structures at the University. Similarly, consent should also be sought from all the participants.

The research should be conducted as outlined in the approved proposal. Any changes to the approved proposal will need to be resubmitted to the Health Research Unit in the Ministry of Health.

Furthermore, you are requested to submit at least one hardcopy and an electronic copy of the report to the Health Research Unit, Ministry of Health within 3 months of completion of the study. Copies should also be sent to relevant authorities.
Approval is for academic fulfillment only.

Thank you,

S. El-Halabi
For Permanent Secretary Ministry of Health

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APPENDIX E: INFORMED CONSENT FORM FOR PARTICIPANTS

1. STUDY TITLE:

A comparative study on high-risk sexual behaviour of male student elite athletes, male student recreational sport participants and male student non-athletes at the University of Botswana.

2. INTRODUCTION:

Thank you for participating in this study. The subject matter of this questionnaire is of a sensitive nature and I am confident that you will handle it in an appropriately mature manner.

The attached questionnaire is part of the proposed present study. Because of the grave nature of the HIV/AIDS epidemic, I am going to ask you some personal questions and I need your frank and honest responses. You will notice that we do not ask for name, and neither is the questionnaire numbered. The answers you give will form part of a large database that cannot be used to identify individuals. Answers will be used only for statistical reports. For this reason I ask you to be entirely honest in answering. Therefore, DO NOT write your name on this survey questionnaire. The answers you give will be kept private. Completing the survey is voluntary. If you are not comfortable answering a question, just leave it blank.

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The findings of this study will be used to further improve the quality of our knowledge and increase our effectiveness in the fight against the disease.

3. STUDY PROCEDURES

You are asked to complete a self-administered questionnaire about your sexual behaviour. There will be approximately 250 male students participating in this study. It will take you approximately 30 - 45 minutes to complete the questionnaire. Please answer all questions by marking a cross in the appropriate square or by writing your comments in the appropriate space. Completing the survey is voluntary. You have to complete the questionnaire by yourselves, though permission will be given to ask questions, should you not understand a question. After completion, the questionnaire will be sealed in an envelope, and dropped into a ballot box and collected by the researcher.

4. RISKS

There are no risks involved in the study.

5. BENEFITS OF THIS STUDY

Your participation in the study will provide information that may be helpful in understanding high-risk sexual behaviours regarding risk to HIV/AIDS infection by male students (especially in the world of sports).

6. EXTENT OF ANONYMITY AND CONFIDENTIALITY

The results of this project will be kept strictly confidential. Your name will be removed and only a code number will be used during evaluation and any written report of this material. Notes and tapes will be secured in the office of the office of the Department of Sports, Recreation and Exercise Science, University of the Western Cape.

7. COMPENSATION

When the research is completed, you may contact the investigator for a copy of the results.

8. FREEDOM TO WITHDRAW

You are free to withdraw from this project at any time without penalty. You also have the right to refuse to answer any questions that are asked during the group discussion. If you choose not to answer any questions, you will still be compensated for your participation in the project.

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9. APPROVAL OF RESEARCH

This project has been approved, as required, by the Botswana Ministry of Health, the University of Botswana and the high committee of research, University of the Western Cape (South Africa).

10. PARTICIPANT'S RESPONSIBILITIES AND PERMISSION

I know of no reason that I cannot participate in this study. I have the responsibility of participating in the study of high-risk sexual behaviour of male students at the University of Botswana. If I participate, I may withdraw at any time without penalty. I agree to abide by the rules of this project.

I have read and understand the informed consent and conditions of this project. I have had all my questions answered, I hereby acknowledge the above and give my voluntary consent for participation in this project.

Signature_____

Date_____