Perceptions of first-year students regarding engaging in sexual behaviours at a university campus

by

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Declaration

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

Nomawethu Patricia Qinisile March 2013

Abstract

The university environment provides many opportunities to be sexually active. University students are reported as tending to engage in high-risk behaviours related to sex, alcohol and drugs. First-year university students are reported to be most vulnerable, as they lack experience to make good and risk-aware decisions when it comes to sexual liaisons. Available initiatives aimed at improving sexual behaviours of students are reported as being implemented simply because they work well somewhere else, without prior assessment of the needs/characteristics of the target population. This can negatively affect their effectiveness.
The following question motivated the study: What factors influence sexual behaviours of first-year students on a university campus? This study sought to describe the perceptions of first-year students about engaging in sexual behaviours at a university campus. To answer the research question, theory of planned behaviour (TPB) was applied as the framework of the study.

The study was descriptive in nature. Data were collected by means of a self-administered questionnaire from a conveniently selected sample of 240 first-year university students from one campus in the Eastern Cape. The measuring instruments were constructed from the constructs of the TBP, namely attitudes (ATT), perceived social norms (PSN), perceived behavioural control (PBC), and behavioural intentions (BI). The SPSS was used to analyse data for frequencies of responses and multiple regression.

Most participants reported being sexually active (85.3%) and the lack of provision of information on sexual issues from adults (parents (23.3%) and church authorities (10.8%) was apparent. Perceived social norms were the most prominent factor that showed to be predictive of sexual behaviours with three significant predictor variables, namely partner age difference (beta = .059, $\rho <$ .040), number of sexual partners in 3 months (beta = .238, $\rho <$ .008) and condom use (beta = .095, $\rho <$ .014). Behavioural intentions also showed some prediction, to a lesser extent, with one predictor variable, namely age at first willing intercourse (beta = .86, $\rho <$ .001). The results from this study suggested that targeting social norms in intervention efforts aimed at improving sexual behaviours of first-year university students in the target population could be beneficial. More studies to explore available social norms in this target group and intervention to change negative norms are recommended.

Opsomming

Die universiteitsomgewing bied studente meer geleenthede om seksueel aktief te wees. Daarbenewens is universiteitstudente na bewering geneig om hoërisikogedrag met betrekking tot seks, alkohol en dwelmmiddels te openbaar. Eerstejaarstudente word as die kwesbaarste beskou, aangesien hulle die ervaring kortkom om goeie, risikobewuste besluite oor seksuele verhoudings te neem. Tog word die beskikbare inisiatiewe vir die verbetering van seksuele gedrag onder studente blykbaar slegs in werking gestel omdat dit elders goed werk, sonder om eers die behoeftes/kenmerke van die teikenpopulasie te bepaal. Dít kan die doeltreffendheid van dié inisiatiewe benadeel.

Die vraag wat as beweegrede vir hierdie studie gedien het, was: Watter faktore beïnvloed die seksuele gedrag van eerstejaars op ’n universiteitskampus? Die navorsing wou dus ondersoek instel na eerstejaars se opvattings oor seksuele gedrag en seksuele verhoudings op ’n universiteitskampus. Om hierdie navorsingsvraag te beantwoord, is ’n teorie van beplande gedrag (TPB) as studieraamwerk gebruik.

Die studie was beskrywend van aard. Data is met behulp van ’n vraelys van ’n gerieflik gekose steekproef van 240 eerstejaar-universiteitstudente op ’n enkele kampus in die Oos-Kaap ingesamel. Die deelnemers het self die vraelys ingevul. Die meetinstrumente is saamgestel uit die verskillende konstrukte van die TPB, naamlik houdings (ATT), waargenome sosiale norme (PSN), waargenome gedragsbeheer (PBC) en gedragvoornemens (BI). SPSS-sagteware is gebruik om die data vir die frekwensie van response en meervoudige regressie te ontleed.

Die meeste deelnemers het aangedui dat hulle seksueel aktief is (85,3%), en die gebrek aan inligting oor seksuele kwessies vanaf volwassenes (ouers 23,3%) en die kerk (10,8%) blyk duidelik. Waargenome sosiale norme het as die sterkste voorspeller van seksuele gedrag na vore getree, met drie beduidende voorspellerveranderlikes, naamlik ouderdomsverskil met bedmaats (Beta = .059, p< .040), aantal bedmaats in drie maande (Beta = .238, p< .008) en kondoomgebruik (Beta = .095, p< .014). Gedragvoornemens het ook ’n mindere mate van voorspellingsvermoë getoon, met een voorspellerveranderlike, naamlik ouderdom met eerste gewillige seksuele omgang (Beta = .86, p< .001).

Die resultate van hierdie studie dui daarop dat intervensiepogings om seksuele gedrag onder eerstejaar-universiteitstudente te verbeter, by ’n klem op sosiale norme kan baat vind. Verdere studies oor die bestaande sosiale norme van hierdie teikengroep, sowel as intervensie om negatiewe norme te verander, word aanbeveel.

Dedication

I dedicate this study to my husband, Zwelabantu, and to my children, Sandiso and Nangamso for their love, tolerance and understanding. A special thanks to my son for his assistance with computer skills.

Lastly, and not by any measure least, to God Almighty, without whom this could not have been possible.

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It has been a long and sometimes lonely journey, but it has been worth every effort.

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CHAPTER ONE: FOUNDATION OF THE STUDY

1.1 Introduction

This chapter introduces the study and begins by defining the topic studied, which is the sexual behaviour of university students. The chapter further discusses the significance of the problem and rationale. The research problem and question, and the aim and objectives, as well as the conceptual framework of the study, are discussed in this chapter. The methodology, ethical considerations, and duration of the study, as well as the outline of other chapters, are also covered in this chapter.

The young adult period encompasses the ages from 18 to 35 years, which is a time that ranges from the end of adolescence to the beginning of middle adulthood. The period concerned includes many physical and emotional changes, and provides an opportunity for learning by experience and experimentation (Edelman & Mandle, 2006:524). It is around this age group that high-risk behaviours are initiated, with most university students belonging to this age group. Young adults at university are often left unsupervised by both their parents and teachers, who assume that they are, mature enough to protect their own sexual and reproductive health (SRH) (Finger, Fischer & Moffett, 2009:8).

Young adults at university are reported as tending to engage in high-risk behaviour that is related to sex, alcohol and drugs. Such practices are referred to as the sexual culture of university life, which may be open to ‘sugar daddy’ practice, sexual experimentation, and prostitution on campus, as well as to the occurrence of unprotected casual sex, gender violence, and multiple partners (Kelly, 2001:34). The Higher Education Human Immunodeficiency Virus (HIV) / Acquired Immunodeficiency Disease Syndrome (AIDS) Programme (HEAIDS) study confirmed the sexual culture of university life when reporting that reported forced sex, older sexual partners, concurrent sexual partnerships, low rate of condom use, alcohol and drug abuse, lack of HIV prevention knowledge, and negative attitudes were some of the factors that were associated with higher HIV prevalence among students in South African universities. First-year university students are reported as being most vulnerable to risky sexual behaviours, as they lack sufficient experience to make good and risk-aware decisions when it comes to sexual liaisons (HEAIDS, 2010:77-85).

1.2 Significance of the problem

There are concerns regarding the implications of the behaviours described above. These implications include a high rate of unintended pregnancies and sexually transmitted infections (STIs), including HIV. Having an early sexual debut and multiple partners, as well as being infected with the Human Papilloma Virus (HPV) are known to be predisposing factors for the development of cervical cancer (Edelman & Mandle, 2006:544).

South Africa has the largest number of HIV infections in the world (UNAIDS/WHO, 2007:16). UNAIDS (2008:39) estimated 5.7 million South Africans to be living with HIV in 2007 and that has made this the largest HIV epidemic in the world. South Africa's HIV prevalence levels in the age-group 15-49 slightly increased from 15.6% in 2002 to 16.2% in 2005 and 16.9% in 2008 (HSRC, 2009:63). The most common mode of HIV transmission in South Africa is through heterosexual intercourse, with young people, particularly women, being at greater risk of acquiring HIV than are their male counterparts (Shishana, Rehle, Simbayi, Parker, Zuma, Bhana, Connolly, Jooste & Pillay *et al.*, 2005:2).

HEAIDS (2010:29) reported that universities in the Eastern Cape province, where this study was conducted, had the highest HIV prevalence, at 6.4% [CI: 4.6%–8.9%]. The percentage is alarming, considering that the province with the lowest HIV prevalence was found to have a prevalence of below 2.0% (Western Cape province, with 1.1% [CI: 0.7%–1.7%]). The need for a study to describe sexual behaviours and to identify critical areas to be targeted for behaviour change in the Eastern Cape province was, therefore, apparent.

1.3 Rationale

From Aristotle's early treatises on sexual desire to Sigmund Freud's theories of psychosocial development, adolescent sexuality has been a topic of concern for virtually every generation. As the 21st century unfolds, society will continue to be challenged by adolescent sexual behaviour and its consequences (Olubunmi, 2011:16). The university environment provides greater opportunities to be sexually active than do other settings. This could be due to the fact that most students, who are mainly in their late teens, tend to reside away from home, and away from their parents' supervision, for the first time. Having to manage a degree of freedom that they have never before had can be challenging to them (HEAIDS, 2010:77).

Although many initiatives have been aimed at guiding and improving students' sexual behaviours, the success of the initiatives is questionable, as there are still reports of risky sexual behaviours among students. It might be assumed that, if it could be understood why students engage in risky sexual behaviours, and if design initiatives were to be based on that understanding, the latter could be much more effective (Crockett, Raffaelli & Moilanen, 2003:372). Determining how various populations perceive their own sexual behaviours, therefore, could have a critical effect on initiatives that are proposed and pursued by the health care authorities. Identifying factors that influence sexual behaviour is relevant in designing culturally effective behaviour change initiatives for any particular population group (Crockett *et al,* 2003:372). This is in line with the National call for development of new and innovative interventions aimed at behaviour change for HIV prevention (SANAC, 2007:12).

1.4 Problem statement

Studies have revealed that one of the greatest challenges facing the health care authorities is how to influence and change the behaviour of young people, in order to try and reduce the spread of HIV and other sexually transmitted infections in the age group that is most at risk (SANAC, 2007:65). As was stated in the previous section of the current thesis, the researcher indicated the relevance of identifying factors that influence sexual behaviours in designing culturally effective behaviour change interventions in any population group. Currently, many programmes are designed based on other programmes that are operating successfully elsewhere, and without assessing the needs or characteristics of the particular population concerned.

The researcher, as a health care provider dealing with students' health challenges at a university, has observed that students still engage in risky sexual behaviours, despite the availability of the programmes and interventions that are meant to improve such behaviours. This could be due to the fact that such programmes do not talk to the needs and characteristics of the population group concerned. The available literature on young people's (including students') sexuality has tended to be behaviour-focused, spurred by concerns about teenage pregnancy and health risk. Much is known about young people's sexual behaviours, especially intercourse, but little about their reasons for having sex or the meaning they ascribe to their behaviour (Crockett et al, 2003:384).

The problem that forms the basis of the current study is the lack of understanding of factors

that influence students' sexual behaviours from the students' perspective. Only when their perspectives have been analysed can there be a true appreciation of the uniqueness of each population, allowing for the tailoring of initiatives to specifically meet each population's needs.

1.5 Research question

The above-mentioned observation led the current researcher to focus on the following research question as a point of departure for the present study: What factors influence the sexual behaviours of first-year students on a university campus?

In the following sections of the thesis, the aim and objectives of the study are discussed.

1.6 Aim of the study

The aim of the current study was to describe the perceptions of first-year students regarding engagement in sexual behaviour on a university campus.

1.7 Objectives of the study

The aim of the study was achieved through pursuing the following objectives:

- to describe the perceptions of first-year university students regarding engaging in sexual behaviour;
- to describe factors that are predictive of sexual behaviours of first-year university students.

1.8 Conceptual framework

The conceptual framework for this study was that of the Theory of Planned Behaviour (TPB). The TPB is based on the assumption that human beings usually behave in a sensible manner, that they take account of available information, and that they, implicitly or explicitly, consider the implications of their actions. This theory further postulates that a person's intention to perform or not to perform certain behaviour is the most important immediate determinant of that action (Ajzen, 2005:117).

The above-mentioned theory further states that intentions are a function of three basic determinants: one that is personal in nature (attitudes); one that reflects social influence

(subjective norms); and a third that deals with issues of control (behavioural control). Generally speaking, people intend to act out behaviour when they evaluate it positively, when they experience social pressure to do it, and when they believe that they have means and opportunities to do so (Ajzen, 2005:118).

According to TPB, individuals who have a positive attitude about abstaining from sexual intercourse and about being faithful to one partner are likely to refrain from participating in casual sexual relations. If they are also mindful about always using a condom during sexual intercourse and about not having sexual relations with someone they just met (i.e. about not having casual sexual encounters) they are unlikely to engage in sexually risky behaviour. By refraining from having sexual relations with someone who is much older than themselves, or for money, goods or favours, they protect themselves from contracting sexually transmitted disease. Those who perceive that they receive social support from key important others for being responsible as far as their sexual relations go, and who are convinced that they can conduct safe sexual practices are likely to behave accordingly (Fisher, 1997:2).

Human action is guided by the following three kinds of considerations, according to TPB:

- beliefs about the likely outcomes of the behaviour and the evaluation of the outcomes (***behavioural beliefs***), which produce a favourable or unfavourable attitude towards the behaviour;
- beliefs about the normative expectations of others and the motivation to comply with such expectations (***normative beliefs***), which result in perceived social pressure or subjective norms; and
- beliefs about the presence of factors that might facilitate or impede the performance of the behaviour and the perceived power of such factors (***control beliefs***), which give rise to perceived behavioural control.

In combination, the three above-mentioned beliefs lead to the formation of behavioural intentions (Ajzen, 2006:1).

In this study, the participants were asked about their beliefs, and the participants were also asked to state their intentions to engage in sexual behaviours in the forthcoming month.

1.9 Research methodology

1.9.1 Research design

The study had a non-experimental, quantitative and descriptive research design. The purpose of a descriptive study design is to provide a picture of situations as they naturally happen (Burns & Grove, 2009:237). In the current study, an attempt was made to describe the perceptions of first-year university students regarding engaging in sexual behaviours. This assisted with identifying the critical factors that influence sexual behaviours.

1.9.2 Study setting

The current study was based on a population of students at a university campus situated in a rural area. The campus studied had two sites which are about 10 km apart. One campus offers degree level and the other diploma level qualifications. The students involved were mostly black students from a previously disadvantaged background.

1.9.3 Population and sampling

The total population consisted of first-year students who were registered at the particular campus of one of the university, irrespective of age. In 2011, 2 031 first-year students were registered at the campus in question. A total of 250 students were recruited to take part at the study. Raosoft sample size calculator available from http://www.raosoft.com/samplesize.html was used to calculate the sample size. The sample of 250 in a population of 2031 has a margin of error of 5.81%, which is within acceptable limit.

In this study probability, stratified random sampling was used. Stratified random sampling requires that the population be divided into strata. An appropriate number of participants are from each subset are randomly selected on the basis of their proportion in the population. The goal of this strategy is to achieve a greater degree of representativeness (LoBiondo-Wood & Haber, 2006:271).

1.9.3.1 Inclusion criteria

Inclusion criteria for the study were being registered for study at the set campus, and being registered for a first-year course even if it is not for the first time.

1.9.3.2 Exclusion criteria

An exclusion criterion for the study was being registered for a second, third or fourth level of

study and postgraduate studies. This was because of the researcher's time, money and personal constraints that existed.

1.9.4 Data collection tool

A quantitative Likert scale rating, TPB questionnaire containing closed-ended questions was designed and utilised for data collection. The structure of the questionnaire was adapted from AIDS Quest CD ROM. AIDS Quest is a resource for researchers and others developing HIV/AIDS related data collection tools. The content of the questionnaires was selected from the literature as the items that were cited as common among student population. The questionnaire consisted of five sections. All questionnaires were in English, as all students who are registered at tertiary institutions understand the language well.

1.9.5 Pilot study

A pilot study was conducted on one site of the campus that was not included in the main study. A total of 29 participants were recruited and participated in the pilot study. The input from the pilot study participants was to be used to revise and improve the questionnaire further, before it was administered to the main study's participants. No valuable comments were made by the participants. They all agreed that all the items on questionnaire were understandable and acceptable. Therefore, no changes were made on the initial draft questionnaire.

1.9.6 Reliability and validity

A Cronbach's alpha coefficient was conducted to test the reliability of the four instruments on the completed questionnaires. Defining the validity of an instrument requires years of work. The present study discussed the content-related validity evidence that was obtained. According to Burns and Grove (2009:381), evidence can be obtained from three sources: the literature, representatives of the relevant population, and content experts.

The questions on the questionnaire were developed from the literature review. They followed the constructs of the theory used as the framework for the study. Three content experts, who were professional nurses working in campus health clinics, were requested to evaluate the questionnaire before it was administered to the pilot study participants. The participants in the pilot study were requested to comment on the understandability and the acceptability of the items on the research instrument. The comments were to be used to revise the instrument, if

necessary, before it was administered to the participants of the main study. However, no revision was suggested by either content experts or pilot study participants.

1.9.7 Data collection

The data were collected by means of administering questionnaires to participants who attended lectures in the lecture halls. The data were collected from the students attending lectures in three lecture halls over a period of three weeks. Permission to access the lecture halls and the appointment times were secured with the lecturers beforehand. Out of 250 questionnaires that were distributed, 10 were not included for analysis, due to them being incomplete. The 240 completed questionnaires were then analysed.

1.9.8 Data analysis

The data obtained were analysed using the Statistical Package for the Social Sciences (SPSS). The researcher captured the data on the completed questionnaires into a spreadsheet, which was then emailed to the statistician involved with the study. The data took the shape of descriptive statistics that were organised in the form of frequency distributions to give meaning and insight to the information obtained (Burns & Grove, 2009:470). Multiple regression analysis was also performed, which predicted the influence of the participants' reported sexual behaviours on the ATT, PSN, PBC and BI instrument scores.

1.10 Ethical considerations

In the current study, the three basic principles, namely respect for person, beneficence and justice, which guide researchers were adhered to. In addition, the confidentiality and anonymity of the participants was ensured. Informed consent was obtained from all participants in the study, and ethical clearance and access to the research area were requested and granted by the relevant parties.

1.10.1 Permission for ethical clearance and access to research area

Permission for ethical clearance was requested and granted by the Ethics Committee at Stellenbosch University (see Appendix B). Access to the research area was requested and granted by the Research Department at Walter Sisulu University (see Appendix C).

1.10.2 The principle of respect of persons

The principle of respect for persons holds that persons have the right to self-determination and the freedom to choose whether or not to participate in research (Burns & Grove, 2009:188). The participants' right to autonomy was respected, with them being informed that they had a right to refuse to participate in, or to withdraw from, the study at any time.

1.10.3 The principle of beneficence

The researcher was obliged to protect the participants from any physical and psychological harm that might occur as a result of the study (Gravetter & Forzano, 2006:93). No harm was done to the participants in the current study.

1.10.4 The principle of justice

The principle of justice holds that human subjects should be treated fairly (Burns & Grove, 2009:188). All first-year students registered at the campus surveyed stood a chance of being included in the study.

1.10.5 Confidentiality and anonymity

The participants in the current study were ensured that the information that they shared with the researcher would be held in confidence. No institution or participant would be referred to by name. All the data collected was securely kept and locked away safely. Only those who were directly involved in the study have been allowed to access the data.

1.10.6 Informed consent

Written informed consent was obtained from the participants, to whom the objectives, the method and the duration of the study were explained. The type of participation expected from them was also explained to them. The participants were informed of how the results that were obtained from the study would be used and published. The identity and qualifications of the researcher were made known to them (see Appendix A).

1.11 Operational definitions

Student: A student is any person who is registered as such at a higher education institution, according to the Higher Education Act 101 of 1997 (Republic of South Africa, 1997). In the current study students were undergraduates registered at the university that was under study.

Perceptions: Perceptions form an individual's map of reality, interpreted in the light of the individual's own life experiences (www.1000ventures.com/business_guide/crosscutting/knowing_people_perceptions.html). In this study perceptions are the participants' attitudes towards safer sexual behaviours, what they believe to be expected of them by significant others and the confidence they have that they can successfully practice such behaviours.

Sexual behaviour: For the purpose of the current study, the term 'sexual behaviour' referred to safer sex. The term 'safer sex' accurately reflects the idea that choices can be made and behaviours adopted to reduce or minimise the risk of HIV transmission. Safer sex strategies include postponing sexual debut, participating in non-penetrative sex, using male and female condoms correctly and consistently, and reducing the number of sexual partners that one has (UNAIDS, 2011:25).

University: A university is an institution that is established, deemed to be established or declared as such under Higher Education Act 101 of 1997 (Republic of South Africa, 1997). In this study a university is an established institution of higher learning.

1.12 Duration of the study

Below is shown a study timeline in tabular form.

Table 1.1: Study timeline

Task	By whom performed	Date of completion of task
Proposal writing and design of the questionnaire	Researcher	20 months (June 2009 to February 2011)
Conducting of the pilot study	Researcher	Two weeks (during August 2011)
Recruitment of participants, selection of sample and collection of data	Researcher	Three weeks (during September 2011)
Analysis of data	Statistician	Two weeks (during December) 2011)
Interpretation of results	Researcher	Three weeks (during March and
Writing of report	Researcher	Four months (July to October) 2012)
Communication of findings to participants, colleagues and management	Researcher	- After one year (during February 2013 to students); - At a research conference that will be held in 2013 for colleagues and management; and - At a conference for campus nurses in January 2013.

1.13 Chapter outline

Chapter One introduced the context of the study and stated the research question, aim and objectives of the study. Chapter One also briefly introduced the methods used to answer the research question.

Chapter Two reviews the relevant literature pertaining to sexual behaviours, structured within the constructs of the theory used as the framework of the study.

Chapter Three discusses the following key issues relating to the set study objectives: the type of study design used; the study setting; the population; the sampling method; the sample size; the method of data collection used; the data analysis; and the issues relating to reliability, validity and ethical considerations.

Chapter Four focuses on presenting the results and the statistical analyses used to answer the research question asked. In the chapter, the characteristics and the background of the participants, the sexual behaviours of the participants; and the psychometric properties of the measuring instruments are discussed.

Chapter Five discusses the findings of the study, in the light of the relevant literature. The format of Chapter Five is guided by the constructs of the TPB, namely, the attitudes, the perceived social norms, the perceived behavioural control, and the behavioural intentions that form the framework of the study. Based on the discussions, various limitations of the study, conclusions and recommendations for future research are also discussed in the chapter.

1.14 Significance of the study

The current study attempted to describe the fundamental aspects of students' sexual behaviours that could enhance the field of sexual health research and practice. Although perceptions are generally accepted as probably being different among different populations, little has been done to examine the differences concerned. As a result, there has been scant, if any, consideration of such differences in the development of programmes that could improve students' sexual behaviours.

The revelation of meaningful perceptions of students' sexual behaviours in the study could be have significant implications for the way in which behaviour change programmes are designed, implemented and evaluated in the future. Instead of trying to assume what the perceptions of the student population are, the research could demonstrate the potential benefits of conducting a thorough evaluation of the characteristics of a specific student population before programme interventions are implemented.

Both the implementation and the evaluation of programmes could be based on the initial recommendations made by students, instead of on directives from the programme planners. Additionally, the current study could provide an excellent starting point for those who wish to research the implications that utilising the perceptions would be likely to have on future interventions designed to improve students' sexual behaviours

1.15 Summary

In this introductory chapter, the context of the study was introduced, together with the research question, the aim and objectives of the study being described. The TPB that is used as the framework of the study was also defined, together with a definition of the concepts that are frequently used in the study. The research methodology used to answer the research question was also briefly introduced. The chapter concluded with a brief outline of all the chapters in the thesis.

The following chapter discusses relevant literature regarding sexual behaviours, in a format that follows the constructs of the theory used as the framework for the study.

1.16 Conclusion

The discussions on this introductory chapter clearly identify the importance of understanding factors that influence students' sexual behaviours from their perspective. Such an understanding can be of great value in planning initiatives aimed at guiding sexual behaviours. It is only then that success in implementing and evaluating the initiatives can be anticipated.

CHAPTER TWO: SEXUAL BEHAVIOURS OF STUDENTS

2.1 Introduction

Chapter Two discusses the literature of relevance to the current study, which investigates the sexual behaviours of students at university.

2.2 Reviewing and presenting the literature

Electronic search was used and the following databases were sourced: EBSCOhost MEDLINE, PROQUEST Central, JSTOR, CINAHL, Free Medical Journals, Google scholar and SABINET online database. Several terms were used for the search, including 'students', 'university', 'college', 'sexual behaviours', 'attitudes', 'impact of social norms', 'socio-economic' and 'intentions', among others. Other journals and books were manually searched for in the library. Those articles that proved to shed some light on broadening the understanding of the topic were selected and reviewed.

2.3 Findings from the literature

The literature on sexual behaviours is presented using the constructs of the TPB, which is the theory used as the framework of the current study. The constructs of the theory are defined firstly, followed by the presentation of findings from the literature, in view of each construct. The constructs are attitudes, perceived social norms and perceived behavioural control, which are all explored below.

2.3.1 Attitudes towards sexual behaviours

Attitude refers to a latent, hypothetical construct that manifests itself in a wide variety of observable responses. The responses which are evaluative in nature are directed at a given object or target (which is sexual behaviour in the present context) (Ajzen, 2005:6). Adolescents' attitudes towards sexual behaviours are shaped by family values, cultural prescriptions and personal experiences (Crockett *et al*, 2003:380). Sexual behaviours are later discussed under sexual activity, partner turnover and concurrency and condom use.

2.3.1.1 Attitudes towards sexual activity

More permissive attitudes about sexual activity predict adolescents' level of coitus and their initiation of sexual relations (Crockett *et al.*, 2003:380). Studies conducted on sexual behaviour among youth in South Africa have indicated that many young people start such

relations at a young age. The estimation of young people aged 15 to 24 years old in South Africa who have ever had sex ranges from 57% to 80% (Shishana *et al.*, 2005:50: Potgieter, Yako, George, John & Yako, n.d.:18). The estimated mean age at first intercourse is 17 years (Pettifor, Rees, Kleinschmidt, Steffenson, MacPhail, Hlongwa-Madikizela, Vermaak & Padian, 2005:1530; Shishana *et al.*, 2005:50; Harrison, O'Sullivan, Hoffman, Dolezal & Morrell, 2007:6; HEAIDS, 2010:33). In a study that was conducted among university students in Nigeria and South Africa, 95.0% and 71.5% of the participants, respectively, reported that they had initiated sexual encounters (Oshi, Ezugwu, Oshi, Dimkpa, Korie & Okperi, 2007:4; HEAIDS, 2010:33). It can, therefore, be safely said that South African youth, including students, have permissive attitudes towards sexual relations.

Young men have been found to hold more permissive sexual attitudes than do young women (Crockett *et al.*, 2003:380). Men are more likely to report starting sexual activity at a younger age than are women (Pettifor *et al.*, 2005:1530; Shishana *et al.*, 2005:50). The Human Sciences Research Council (HSRC) (2009:39) reported that fewer than 10% of the respondents had their sexual debut before the age of 15 years. The Council also noted that, in each year before the age of 15 years old, twice as many boys were found to have started sexual relations earlier than had the same-age girls, with the differences being statistically significant.

Research has shown that securing and maintaining a sexual relationship is usually critical to the self-evaluation of masculine success, as well as to male peer positioning (Woods & Jewkes, 2001, as cited in Jewkes & Christofides, 2008:3). Young men have been found to view sexual initiation and fatherhood as a way of proving that they were ‘real men’, thus affirming their identity as men (Varga, 2003:166). On the same token, involvement in sexual relationships has been found to be very important for women as well, in terms of their evaluation of femininity and their exploration of their power as women (Jewkes & Christofides, 2008:4). In certain contexts, the femininity of youth has been evaluated by the ability to secure a boyfriend, with the status of being single threatening one’s social standing and self-esteem (Jewkes & Christofides, 2008:6; Jewkes & Morrell, 2010:6).

The research also shows that a minority of young people abstain from embarking on sexual relations. In a study, the majority of young people (71%) abstaining from sex stated that they were not ready for such relations, with 22% stating that they were not interested in relations

of that nature (Shishana *et al.*, 2005:51). Other reasons given for abstaining from sexual relations were wanting to avoid STI, including that of HIV, as well as not wishing to fall/cause pregnancy, and on religious and cultural grounds (Shishana *et al.*, 2005:52). About a third of the university students surveyed reported never having had sexual relations. Such a finding is notable in a context where most others of the same age are openly sexually active (HEAIDS, 2010:79), with some even openly having more than one sexual partner.

2.3.1.2 Attitude towards partner turnover and concurrency.

Having a higher overall number of sexual partners and having a high turnover of sexual partners are risk factors for HIV infection (SANAC, 2007:37). Pettifor *et al.* (2005:1530) report that, among sexually experienced young people, only 35% reported having had only one lifetime partner. Men were significantly less likely to report having had only one lifetime partner compared to women (25% vs. 45%, respectively). Shishana *et al.* (2005:57) also found that 27.2 % of the male respondents aged 15 to 24 years, and only 6.0% of female respondents of the same age group, reported having had more than one sexual partner in the past 12 months. HEAIDS (2010:34) found that 19% of male students and 6% of female students reported having had more than one partner in the past month. Some of the sexual partnerships concerned were maintained concurrently.

Concurrent sexual partnering is common in sexual relationships between young people in South Africa and other sub-Saharan countries. There are many motivations given for having sex with partners concurrent to an existing sexual relationship, including pleasure, curiosity, amusement and exploration, revenge against unfaithfulness, to gain sexual experience and to alleviate boredom. Other explanations are often given as well, such as being in a relationship that tolerates concurrent partnerships. Such relationships are sustained on the basis of understanding by the 'non-main' partner that their status is that of a casual or less significant sex partner. The status is readily accepted, especially if it is agreed to, or known to exist, from the outset of a sexual relationship (Parker, Makhubele, Ntlabati & Connolly, 2007:22; HEAIDS, 2010:80).

An HEAIDS (2010:82-83) study found high levels of sexual activity (more for male than for female students) and a high prevalence of concurrent sexual behaviour. The study also found that female students participated in concurrent sexual partnerships to benefit from the resources of their male partners, whereas male students were largely motivated by the desire

for sexual relations and for good peer positioning (HEAIDS, 2010:83; Mutinta & Govender, 2012:22). In spite of the high levels of knowledge about HIV/AIDS, high levels of concurrent sexual relationships were found to be prevalent among students who participated in the HEAIDS (2010:83) study.

Temporal separation from a partner was cited as a motivation for having a concurrent partnership. Partnerships with those who were away from home tended to be seen as ongoing, and they tended to continue over protracted periods of time, although the opportunities to be together were intermittent for the partners concerned. In the interim, the students were likely to enter into (an)other relationship(s) at university (HEAIDS, 2010:80). Having a partner in another town was related to loneliness, sexual desire and limited means to visit the 'main' partner. Having another partner locally served, at least partly, to curb loneliness and to satisfy sexual desire (Parker *et al.*, 2007:30).

Other relationships that have been found to be sustained are those between the unmarried parents of a child. The relationships between men and women who have children together often last longer than do relationships without children. A bond remains between parents that extend to maintaining an ongoing sexual relationship that potentially overlaps with other newly developed relationships. Such relationships are bound by secrecy and a sense of 'ownership' (Parker *et al.*, 2007:26; Jewkes & Christofides, 2008:6).

Exposure to concurrent sexual partnerships involves high risk for HIV acquisition. The rate of change of sexual partners, especially concurrent partners, is a crucial determinant in the spread of sexually transmitted infections, including HIV (HEAIDS, 2010:79). Having a long-term concurrent partnership produces a higher incidence of exposure than might otherwise be present, and also results in a sustained exposure to wider, and potentially more concentrated, sexual networks (Parker *et al.*, 2007:42). Exposure occurs when either one or both sexual partners have other concurrent partners.

The possibility, therefore, exists that monogamous individuals might still be exposed to sexual networks, as a product of the other partner having other sexual partners (Parker *et al.*, 2007:42). HEAIDS (2010:84) found that people were less likely to use condoms if they had one partner or if they had a 'main' partner, than if they had more than one partner. Such behaviour could increase the susceptibility of those involved in such relationships to HIV, as

the main partner might have other sexual partners.

Shishana *et al.* (2005:57) found that, although a higher HIV prevalence (20,6%) was reported for respondents who reported that they had more than one sexual partner, as compared to those with only one partner (16,3%), the difference in HIV prevalence between the two groups mentioned was not significant. Having unprotected sex with greater numbers of sexual partners increased the risk of HIV acquisition, with the risk involved increasing in the context of such generalised epidemics as the one that is present in South Africa.

2.3.1.3 Attitude towards condom use

Condom promotion should focus on the promotion of consistent and correct condom use. When used consistently and correctly, male and female condoms prevent pregnancy, HIV infection and the contraction of other STIs (Parker *et al.*, 2007:47; SANAC, 2007:37). Consistency in condom use seems to be a challenge among the youth (Potgieter *et al.*, n.d.:18; Oshi *et al.*, 2007:7). Pettifor *et al.* (2005:1532) observed that 71% of the participants in their study reported that they had not always used a condom with the partners with whom they had last had sexual relations.

The overall proportion of people who reported using a condom in their most recent sexual encounter doubled from 27.3% in 2002 to 62.4% in 2008. Both men and women aged 15 to 24 reported the highest rates of condom use in their most recent sexual encounter, 57.1% in 2002 in comparison to 87.4% in 2008 for men and 46.1% in 2002 to 73.1% in 2008 for women (HSRC, 2009:45). HEAIDS (2010:32) found that only 62% of male student participants and 58% of female student participants reported having used condoms in their most recent sexual encounter. In both studies, the women were found to be less likely than were the men to report using a condom in their most recent sexual encounter. The low levels of condom use within the campus communities was found to be of concern, as it was thought that such intellectually advanced individuals should have known better than to practise unsafe sex.

In the above study, the students reported that condoms were most often used in casual, once-off and new sexual relationships. In long-term liaisons and relationships, condom use tended to decrease, seemingly in inverse proportion to the growing sense of familiarity and trust between the partners (HEAIDS, 2010:84). Students in the HEAIDS study reported the actual

experience of, as well as the perception of, diminished sexual pleasure with condom use. They also spoke of fears of the trustworthiness of the 'Choice' condoms that are distributed for free by the Department of Health.

Sheer lack of willingness, negative attitudes, an inability to use condoms, the fear of breaking off a moment of arousal to find a condom, decreased pleasure, alcohol use, a sense of fatalism that emerges when a condom is not used on one occasion, lack of self-esteem, having love and trust in one's partner, and the low perception of personal HIV risk have been identified as personal reasons for the inconsistent or non-use of condoms. The lack of access to condoms and the lack of money to buy condoms, differences in negotiation power, based on gender inequalities, the partner's objection, accusation of unfaithfulness, the threat or fear of violence, and discouragement of the views of peers and/or sexual partners were some of the contextual reasons given for the inconsistent or non-use of condoms (Peltzer, Nzweni & Mohan, 2004:12; Oshi *et al.*, 2007:7; Parker *et al.*, 2007:36).

Many girls and young women cannot refuse to participate in unwanted sex or to negotiate for protection from pregnancy and STI, including HIV, particularly when they fear retaliation. In situations of force or coercion, whether by strangers, acquaintances, family members, 'sugar-daddies' (older men who are generous to young women or boys in return for sexual favours), boyfriends or husbands, negotiating condom use is virtually impossible (IWHC, 2008:2). Mainly female student participants reported difficulties in negotiating condom use, which, in situations of transactional sex, was particularly difficult to handle (HEAIDS, 2010:85). The next section discusses the perceived social norms that are one of the constructs of TPB.

2.3.2 Perceived social norms regarding sexual behaviours

Norms are appropriate, expected rules of behaviour, and the positive or negative sanctions, costs, and benefits associated with following, or violating, those rules. Perceived social norms reflect social influence**.** Beliefs about the normative expectations of others and the motivation to comply with such expectations (i.e. normative beliefs)are concerned with the likelihood that important referent individuals or groups approve or disapprove of performing certain behaviour (Ajzen, 2005:117).

Understanding the social environment is important, because individual behaviour is influenced, or even determined, by community expectations (Finger *et al.*, 2009:7). The

social context in which young people grow up and become adults influences their choices and their reproductive health behaviours. Consequently, in order to develop educational interventions that are more likely to change sexual behaviours of young people than were the interventions of the past, greater emphasis needs to be given to the way in which young people understand their social and physical worlds, and to the social and cultural processes that help them make sense of sexual desires, feelings and interests (WHO, 2006:16). In this section, the influence of culture, gender, parents, peers and friends, as well as of educational and religious institutions, on individual sexual behaviours is briefly discussed.

2.3.2.1 Influences of culture and gender

Some evidence exists that gendered cultural attitudes and practices expose individuals to risky sexual behaviours. Gender differences in sexual socialisation are important in influencing with whom men and women partner, as well as when they do so, and under which circumstances. Gender is influential in determining behaviours (Jewkes & Morrell, 2010:1).

Gender refers to the sets of social expectations and ideas that are held about what amounts to the appropriate behaviours of men and women. Gender differences, in contrast, are fundamentally underpinned by power inequalities, which results in the subordination of women and their interests in a gender order that privileges men and that is organised by male power (Greig, Peacock, Jewkes & Msimang, 2008:S36). Gender inequalities are inherent in most patriarchal cultures where women are accorded a lower status than are men (SANAC, 2007:31), and, historically, South African society is strongly patriarchal.

The dominant ideal of black African manhood emphasises toughness, strength and expression of prodigious sexual success (Jewkes & Morrell, 2010:1). These notions of masculinity equate being a man with having dominance over women, being capable of sexual conquest and participating in risk-taking activities, which are associated with decreased condom use, more STIs, more sexual partners (including more casual partners), more frequent sex, more abuse of alcohol, and more participation in transactional sexual relations (Chege, 2005:2; Greig *et al.*, 2008:S35). Social norms in many sub-Saharan African contexts permits, and even encourages, men to engage in sexual relations with multiple and much younger partners and to dominate in sexual decision-making (Gillespie *et al.*, 2007, as cited by Kim, Pronyk, Barnett & Watts, 2008:59).

The above-mentioned pattern of behaviour was also observed among students, with HEAIDS (2010:79) finding that it was more acceptable among men for them to have more than one partner at a time and for them to have a casual (a one-night stand) rather than a single long-term partner. Women's attitude towards said perceptions of men, as they related to their feminine stance, was that they felt that they should forgive and accommodate male inequitable and antisocial behaviours (Jewkes & Morrell, 2010:9). Women were expected to be submissive, with young women having little or no control over decision-making. Their acceptance of inherent gender inequity impacted significantly on the choices that they made, especially with regard to when; with whom and how sexual intercourse took place (SANAC, 2007:31).

The aforesaid ideals of femininity are embedded in cultural processes that reward compliance (Jewkes & Morrell, 2010:9). Male partners have sex with sex workers, or engage in multiple relationships, with their female partners or spouses being unable to insist on condom use during sexual intercourse, for fear of losing their main source of livelihood (SANAC, 2007:31). Female students were reported to be accepting of multiple and concurrent relationships, due to a perception of unbalanced sex ratios, with the shortage of men making it difficult to engage in monogamous relationships with men.

Women are not always necessarily victims of male dominance, though, as they are sometimes actors who make the most of opportunities and strategies that are aimed at maximising their interests within the confines of structural and ideological constraints (Greig *et al.*, 2008:S36). In resource-poor settings, flirting and meeting with boyfriends provides hours of affordable entertainment for women. In such an environment, women have fun, compete and measure their desirability through flirting and encouraging proposals from men, while holding that their social status is primarily dependent upon them having a boyfriend (Jewkes & Morrell, 2010:6).

However, patriarchal norms may be shifting, with young people coming to shape new gender-based norms (Parker *et al.*, 2007:46). Harrison *et al.* (2006:8) found that men who believed in power-sharing in relationships tended to have fewer sexual partners. Harrison *et al.* (2006:7) also found that men who were more dominant used condoms more frequently in sexual relations with partners outside their primary relationships. In contrast, women who perceived themselves as being equal to men tended to have multiple partners. Doing so could

be due to their reaction against restrictive gender norms, with them asserting their equality by behaving like men.

With the above in mind regarding gender an influence, the acknowledgement is due that societies differ greatly in their cultural rules regulating sexual behaviours and the amount of vigour with which they are enforced. In some cultures, premarital sexual relations are encouraged, whereas, in others, sexual relations are discouraged (Crockett *et al.*, 2003:375). Historical perspective in South Africa reveals two compelling discourses on sexuality, of which one is rooted in Christianity, in terms of which sexual relations are regarded as being located within marriage, for purposes of procreation. The other discourse reflects traditional black African ideas that sexual relations are normal and healthy, and an essential feature of life for all ages, as well as being an aspect of life about which there should be openness and a free flow of communication (Jewkes & Morrell, 2010:4).

In terms of the traditional black perspective, the sexuality of teenage girls has, in many respects, long been recognised, but with the caveat that they should guard the boundaries of their sexual experimentation. Traditionally, premarital penetrative sex was prohibited, but, currently, it is a norm and, indeed, half of all black women have had a child by the age of 21 years (Jewkes & Christofides, 2008:3; Jewkes & Morrell, 2010:4). Traditionally, teenage boys were expected to behave in a way that supported non-penetrative sex, but, in recent years, such expectations seem to have been replaced by a degree of permissiveness (Jewkes & Christofides, 2008:3).

The emphasis on individual freedom and a rights-driven culture in Western societies might have been instrumental in giving rise to the apparent permissiveness mentioned above. Indeed, the practice of allowing the sons of the family to have outside rooms with a separate entrance is a tacit sign of parental permissiveness, and questions are no longer asked about with whom sex will take place, or under what terms (Jewkes & Christofides, 2008:3). Despite this increased societal permissiveness, and the fact that the majority of adolescents tend to have sexual relations, many are reluctant to accept the idea of adolescent intercourse. Due to this reluctance, adolescents, who are encouraged to prepare for adulthood, are given little guidance regarding, or training for, how to conduct their sexual experimentation.

Such guidance is provided in the form of cultural values and attitudes regarding sexuality that are distilled through experiences in the everyday social context. Interaction with families, peer groups and other daily contexts, like school and church, can influence whether and when an adolescent will initiate sexual intercourse. The social contexts are discussed below.

2.3.2.2 Influence of parents.

Preparing children for entering into intimate relationships and providing them with an understanding of how to conduct themselves as sexual beings is a crucial aspect of socialisation (Rees-Weber, 2003:1). The family shapes the sexual attitudes of adolescents by providing structure and guidance through the transmission of cultural norms and values, as well as opportunities for parental attachment, emotional closeness and a sense of support (Fako, 2010:123). Family cohesiveness, parent–adolescent communication about sex, and parental monitoring have all been shown to help prevent adolescents from engaging in risky sexual behaviour (DiClemente, Crittenden, Rose, Sales, Wingood, Crosby & Salazar, 2008:599; Olubunmi, 2011:17).

Fako (2010:122) discovered that family cohesion, emotional bonding with important others and the stability of home environment have a determining effect on sexual activity. Fako's study reported that adolescents who were looked after by siblings (and not parents), and those who had no one looking after them were more likely to be sexually active than were those who were looked after by parents or other adult relatives. Adolescents whose parents were still married to each other were far less likely to have under-age sex (Olubunmi, 2011:18). Personal and familial difficulties that were reflected by conflict in the family, fighting with other children, and a lack of happiness with life in general were also associated with a greater likelihood of sexual activity than was a positive family background (Fako, 2010:123).

Parents have a responsibility for fulfilling the task of educating their adolescents about sexual matters (Olubunmi, 2011:18). Research has shown that parent–child communication about sexual matters occurs in most families. Such communication is usually initiated by the parents, and rarely by the young people in the family, with their talks usually reflecting the worries that parents have about their children's sexual health. The talk usually takes the form of warnings, threats and physical discipline, and is mainly about abstinence, unplanned pregnancy and HIV. It is rarely about contraception and condoms (Wamoyi, Fenwick, Urassa, Zaba & Stones, 2010:16).

Young people should be advised about sex before their sexual debut, as waiting to hear about clues of how to engage in sexual relations might be too late and difficult because of the generally secretive nature of sexual relationships (Rees-Weber, 2003:5). Parent–child communication is reported usually to be triggered by seeing or hearing something that parents perceive as negative and that they would not like their children to experience. Parents mainly communicate to their children after observing changes in their behaviours, which they blame on them having sexual relations. Reaching girls and boys at a young age is important to enable them consciously to choose their beliefs and actions (Wamoyi *et al.*, 2010:12).

As much as it is observed that parent–child communication does happen, such communication is beclouded by parental inhibition and intergenerational tension. Parents usually shy away from such discussions, because it is generally believed that they might, by discussing the matter with them, unwittingly be encouraging their children to experience that about which they have been told (Wamoyi *et al.*, 2010:12). Relatively low parental educational attainment also has an impact on parent–child communication (Crockett *et al.*, 2003:375). Parents may not be fully equipped to answer questions on sexual matters usefully, as they sometimes lack appropriate knowledge on sexual and reproductive health issues (Wamoyi *et al.*, 2010:12).

Parental monitoring is another particularly important familial factor. The evidence has suggested that adolescents who perceive that their parents (or parental figure) know where they are and with whom they are outside the home are much less likely to engage in STI/HIV sexual risk behaviours. In addition, positive parental influence can buffer adolescents against the influence of negative peer norms that could lead to risky sexual behaviour (DiClemente *et al.*, 2008:599). Peer influence, which is crucial among young people, is discussed below.

2.3.2.3 Peer influence

Peer groups provide a place where adolescents feel accepted where they can feel good about themselves, and where their self-esteem is enhanced. Having a group of friends to whom they can turn for advice and understanding enables them to operate in an environment of mutual trust. Adolescents tend to view other members of their peer group as friends who will not judge them, as outsiders and/or parents would be more likely to do.

Peers are presumed to exert a major social influence on adolescent sexual behaviour. Abstaining from sex and delaying sexual debut are undermined by adolescents' strong need to belong to a social group (Selikow, Ahmed, Flisher, Matthews & Mukoma, 2009:110). The peer effect may operate on several levels.

Sexually experienced same-sex friends might serve as a source of pressure for an adolescent to become sexually active. For girls, the pressure sometimes comes from sexually experienced peers, who exclude abstaining girls from group discussions, because they regard them as still being children (Mpofu, 2012:67). In their quest not to be excluded from interaction with other members of their peer group, they can initiate sexual relations. In a study that was conducted at a Nigerian university, most student respondents (80.7%) reported that they believed that most people of their age group were engaging in premarital sex. The same students were also of the opinion that women on campus encouraged their female peers to engage in premarital sex, and also that men influenced their male peers to do the same (Okonkwo, Fatusi & Ilika, 2005:111).

Same-sex peers are a major source of information about sexual relations. As much as they perceive peers as untrustworthy sources of information, and believe that adult could provide more accurate information about such relations than could their friends, they have little access to the knowledge of adults, and, hence, they tend to rely on their peers for information (Selikow *et al.*, 2009:110; Wamoyi *et al.*, 2010:15). Same-sex friends might influence the perceived acceptability of sexual behaviour.

Perceptions regarding the influence of peers and significant others have been documented to be the key social factor associated with the behaviour of young people (Okonkwo *et al.*, 2005:107). The factor is, perhaps, one of the most powerful psychosocial influences on an adolescent's sexual risk behaviour. Perceived peer norms surrounding sexual behaviour and condom use have been shown to be key influencers of risky sexual behaviour (DiClemente *et al.*, 2008:599).

If adolescents and young adults perceive that their friends are having unprotected sex or that they are engaging in risky sex, they might be more likely to adopt their friends' behaviours. Similarly, general perceptions of low levels of social support among peers have also been associated with the likelihood of participating in risky sexual behaviour. In contrast,

perceived peer norms that are supportive of STI/HIV-protective behaviours can have a significant influence on the adoption and maintenance of protective behaviours (DiClemente *et al.*, 2008:599).

The adolescent stage is when teenagers experience new values and behaviours among their supportive peers. Adolescents' access to a group in which they feel they can 'belong' is often exploited and used to promote negative sexual norms. Certain peer groups may take on traits of gangs, in which each member has consistently to prove their loyalty and devotion to the group by performing immoral, unethical and even illegal acts (like drinking, smoking, and being promiscuous together) (Selikow *et al.*, 2009:112). In such instances, peers provide settings where sex can occur.

As peers play such a significant role in adolescents' lives, peer education has increasingly been advocated as an important avenue that could be used to challenge negative social norms. Peer education is an intervention in which well-trained people lead informal, or organised, educational activities with their peers. Such education is a popular approach to reaching youth with information and skills that are related to their sexual and reproductive health. It is also a convenient way of reaching many youths simultaneously (Finger *et al.*, 2009:8). Furthermore, peer education allows for the debate and negotiation of messages and behaviours, leading to the development of new collective norms of behaviour, rather than merely to a seeking to convince individuals to change their own behaviour (Mpofu, 2012:73).

Research suggests that a well-designed and well-implemented peer education programme can increase young people's knowledge and, to some extent, change their attitudes and sexual behaviours (Finger *et al.*, 2009:8). Buchan (2008:90) reports that recipients of peer education in her study expressed that, on sensing that they were heard, had realised that they were normal and not alone. It seems that the majority of the recipients in her study gained self-esteem, and that they, in doing so, gained confidence in their rights and needs, as well as their sense of self-worth. Thus, such a shift in self-esteem might result in a decrease in risky sexual behaviours. A shift in self-worth and -esteem underlies an increase in self-efficacy.

Self-efficacy is rooted in social cognition theory and is an important component of health related behaviour change. High self-efficacy have been documented as resulting in less risky sexual behaviours and improved condom use consistency (Sayles, Pettifor, Wong, MacPhail,

Lee, Hendriksen, Rees & Coates, 2006:6). This is a very important benefit if peer education can provide it for recipients.

On the contrary, the broader review of evidence indicated that peer programmes have not been shown to be sustainable, cost-effective, or able to overcome selection bias. The primary impact of peer education programmes may be on the peer educators themselves, and not on their peer contacts. Also, peers may tend to contact mainly youths whom they perceive as being similar to themselves, which means that various types of youth need to be recruited to reach a wide range of groups (Finger, Lapetina & Pribila, 2002:16). Peer education, whereby particular peers are selected by educators or programme developers/supervisors, is unlikely to be successful, as adolescents are influenced by peers from their own group and not necessarily by their selected peers (Selikow *et al.*, 2009:112).

2.3.2.4 Influence of religion

Religion is often linked to adolescent sexual behaviour. Youths who have no religious affiliation are more likely to initiate sexual relations as teenagers (Crockett *et al.*, 2003:380). Farmer, Trapnell and Meston (2008:12) assert that the lack of religious beliefs might dispose women to engage in more unrestricted premarital intercourse behaviour, because they are then less likely to model their sexual activity after the dictates of religious doctrines.

A subject with greater religiosity, as indicated by the increased importance of religion, more frequent religious service attendance and more religious sexual attitudes, was more likely to delay intercourse, to have fewer partners, and to have fewer odds of 'hooking-up' in college. In particular, frequency of religious service attendance had a more robust association with sexual activity than did just holding religion to be very important (Burdette, Hill, Ellison, & Glenn, 2009:545; Haglund & Fehring, 2009:12). Co-religionist networks may be particularly important during college years, when individuals have increased dating and sexual opportunities, yet little or no supervision (Burdette *et al.*, 2009:545). Such a finding is in consensus with HEAIDS' (2010:79) report that the primary motivation for sexual abstinence in campus communities was found to be related to the holding of religious beliefs by those concerned.

2.3.2.5 Influence of education institutions

The school setting provides an opportunity for the primary prevention of HIV infection

among large numbers of potentially vulnerable young people. Such prevention can be achieved by providing information about sexuality and its consequences, and by building skills to enable use of that information. Abiding by a thoughtfully conceived curriculum can ensure that young people are provided with detailed information about a variety of issues, such as how to deal with the pressure to have sex, how to prevent pregnancies, and how to prevent STIs, including HIV (Finger *et al.*, 2009:2).

An appropriate curriculum can also include communication and listening skills, negotiation and refusal skills, and decision-making and problem-solving skills. Moreover, coping and self-management skills, such as increased self-esteem and the ability to manage feelings and stress, could also be included in such a curriculum. A curriculum can also include advice on condom and contraceptive use, instruction in the ability to obtain condoms and other preventive measures from the service providers concerned, and the ability to negotiate the correct use of such measures with sexual partners (Yankah & Aggleton, 2008:467).

Sexuality education has become a compulsory part of the South African school curriculum since the adoption of outcomes-based education (OBE), with such education falling in the Life Orientation (LO) learning area. Schools and teachers are given a considerable amount of responsibility and autonomy in respect of the implementation of the LO sex education programme. Teachers' own self-discipline, diligence, and high moral standards are important requisites for the successful implementation of the programmes concerned (Prinsloo, 2007:159).

One of the main foci of interest regarding the teaching of sexual health programmes in a school context is the lack of training for teachers, who often lack the required skills and knowledge to tackle the task. Because LO is a new learning area, educators have relatively few years' experience in teaching such a subject. LO teachers in most South African schools lack uniformity of training and come from a diverse range of fields, which does not always adequately equip them to deliver sexuality education confidently and effectively (Rooth, 2005:235). Teachers who lack training and skills lack motivation and confidence. They have little influence on the learners' formation of values, and are unable to alter the learners' behaviour (Prinsloo, 2007:165).

Higher education institutions have a mandate to ensure that students graduate equipped with essential skills and knowledge that will enable them to make a positive contribution to the South African HIV and AIDS response, as agents of change within their families, communities and places of work (HEAIDS, 2012:12), the teaching profession included. There is not much literature available on integration of HIV/AIDS to the curriculum. Higher Education South Africa (HESA) in 2007 published case studies of HIV/ AIDS curriculum integration in several higher education institutions. They asserted that curriculum integration aims at exposing students to the multifaceted impact of HIV in a course specific manner where students would gain an academic and professional understanding of the implications of HIV on their chosen careers or academic fields (HESA, 2007:6). We hope that as time passes there will be much published on challenges and successes of such integrations.

2.3.2.6 Influence of the media

Young people are frequently exposed to sexual material on TV, radio, and cell phones, as well as in films and magazines, as well as in other media (Kaiser Family Foundation & SABC, 2007:1). Because of its reach, media can be an effective tool of raising awareness about such issues as HIV and sexuality. Media coverage of the subject can create space for frank and open discussion of sexuality and sexual relations. The positive role that it can play lies in it transmitting key values that can guide the sexual behaviours of youth (Asmal, 2001:21).

LoveLife and Soul City are excellent examples of using youth culture to raise awareness on sexuality issues and on shifting values and behaviours that are related to sexuality (Asmal, 2001:21). Many young South Africans have heard of Soul City (91%), LoveLife (86%), and Khomanani (61%) (Kaiser Family Foundation & SABC, 2007:18). Among those who have heard of the above, large majorities say that each has been very important overall for young people in South Africa, as well as having been very important to them personally, in their learning about HIV/AIDS, and in helping them to make choices regarding sexual behaviour. Of all young South Africans, 83% have been found to think that national HIV/AIDS prevention and education campaigns are very effective in teaching young people about HIV/AIDS (Kaiser Family Foundation & SABC, 2007:1).

However, the media increasingly have come to portray explicit images about sexual activity and modes of sexual behaviour that are, on occasion, in stark contrast to cultural and religious

practices. Engaging with, and trying to reshape images and values, is important, as doing so helps to promote a culture that contributes to healthy sexuality during youth (Asmal, 2001:21). Parents, educators, religious leaders and other people in authority have a responsibility to engage with the media and to influence what is being transmitted to young people.

2.3.3 Perceived behavioural control over sexual behaviours

Perceived behavioural control (PBC) refers to the individual's sense of their ability to perform the behaviour of interest. It is the individual's belief that he/she has the means and opportunity to perform the behaviour of interest. PBC differs from *actual* behavioural control in that the importance of actual behavioural control is self-evident. The resources and opportunities available to a person must, to some extent, dictate the likelihood of behavioural achievement. Of greater psychological interest than actual control, however, is the *perception* of behavioural control. PBC refers to people's perception of the ease or difficulty of performing the behaviour of interest (Ajzen, 1991:183). PBC takes into account some of the realistic constraints that might exist (Ajzen, 2006:118).

Safe sex practices, which are the behaviours of interest to the current researcher, are behavioural goals over which people have only limited volitional control. In addition to the desire to practise safe sex, people have to be capable of adhering to their decisions in the face of constraints, distractions and temptations (Ajzen, 2006:119). It has been observed that, even knowing about how to practise safe sex might be inadequate in daily situations of economic and social disadvantage that characterise the lives of many young people and women in poorer settings (Hallman, 2004:2). Some of the economic and social disadvantages that might discourage safe sex practices among young people are discussed below.

2.3.3.1 Economic disadvantages and sexual behaviours

Relative economic disadvantage is found to increase the likelihood of a variety of unsafe sexual behaviours and experiences of young women and men significantly. Low socio-economic status influences sexual experiences in diverse ways, by increasing women's and men's odds of having multiple sexual partners, by lowering the female and male age at sexual debut, by lowering chances of condom use at last sex, and by affecting communication with the most recent sexual partner regarding sensitive topics (Hallman, 2004:23).

Low socio-economic status has larger and more statistically significant effects on female than on male unsafe sexual behaviours (Hallman, 2004:23). Research from South Africa has revealed that poorer women are more likely to have experienced early sexual debut, a non-consensual first sexual encounter, and a higher rate of physically forced sex, or having engaged in sexual relations in return for money, goods or favours. The women concerned in the study also had more sexual partners and were less likely to use condoms than did their wealthier counterparts (Hallman, 2004:23; Population Council, 2005:11).

Exchanging sexual relations for money, goods and favours takes many forms, ranging from participation in commercial sex to involvement in relationships in which the opportunity to have sexual relations is provided in exchange for favours, gifts and recreational or travel opportunities, but not necessarily as a form of direct payment (HEAIDS, 2010:80). Parker *et al.* (2007:35) found that unemployed women tended to describe sexual exchange as providing a means of survival for them. The researchers also recognised that such economic dependence was disempowering when it came to condom use, the choice of sexual partners, and the number of sexual partners.

Poorer students are more vulnerable to being enticed into relationships for material gain. Hunger, poverty and desperation drive the young women concerned into engaging in transactional sex (HEAIDS, 2010:81; Mutinta & Govender, 2012:26). Said students arrived at university with little financial support for food and fees; they exchanged sexual relations for necessary commodities, like free transport to campus, access to computers, food and housing. Such lack of disposable income encourages risky behaviour, because the partner who is 'provided for' has little power to negotiate a situation of safe sex in either a casual or a committed relationship (HEAIDS, 2010:81; Mutinta & Govender, 2012:17).

Oshi *et al.* (2007:11), in their study among university students in Nigeria, had similar findings. Student participants in the study were of the opinion that the practice of girls having multiple partners to aid them financially in their academic pursuits would only exacerbate. They felt that it was difficult to see how many girls, if not most, on campus would continue their academic pursuits without having financial support from men who were not their relatives, and who would demand sex for the assistance that they provided. The student respondents also stated that being wealthy on campus was also a factor in having multiple partners among the male students (Oshi *et al.*, 2007:6).

Not all students engaging in sexual relations in exchange for commodities had similar dire economic needs though, as social status also played a role in influencing the issue. Among the female students, social status was acquired through their access to the 'latest' items, like phones, clothes, and the ability to go on outings, and to eat nice food. The majority of students said that the pursuit of high-class lifestyles among the female students was influenced by a culture of consumerism. Thus, in wanting to acquire financial support for their 'luxuries', some students ended up engaging in sexually risky behaviour (HEAIDS, 2010:81; Mutinta & Govender, 2012:26).

The range of forms of exchange in campus communities has been found to include students who support their studies by having sexual relations for money, students having sexual relations with lecturers for pass marks, relationships being based on the obligation to engage in sexual activity in exchange for gifts, favours and opportunities, and having sexual relations with people who possessed social status, so as to achieve esteem and social acceptance. It is, therefore, not only vulnerability, but also social aspirations, recreational needs and other non-forced choices that lead students to engage in sexual activity for gain (HEAIDS, 2010:81).

2.3.3.2 Alcohol use and sexual behaviours

Excessive alcohol consumption is recognised as a risk factor for sexual risk-taking (HEAIDS, 2010:108). Several studies indicate that alcohol use, sexual behaviour and the failure to use a condom are commonplace among college students (Cooper, 2002:105; HEAIDS, 2010:85). Binge drinking was reported to be the major source of recreation on many campuses over weekends, together with engaging in sexual relations (HEAIDS, 2010:85).

Studies have reported that the likelihood that an individual has ever drunk alcohol is predicative of the likelihood that he/she has ever had sex (Cooper, 2002:111; Mabille, 2009:26). The results further suggest that the level of alcohol consumption also predicts the level of sexual involvement, and that drinking in a potentially sexual situation is associated with an increased probability of intercourse on the occasion in question (Cooper, 2002:111; Mabille, 2009:24). According to said studies, drinking prior to intercourse is associated with risky partner choice, as well as with decreased risk discussion on the occasion concerned (Cooper, 2002:111& Mabille, 2009:26).

2.4 Summary

Literature on the attitudes of young people towards sexual behaviours has been reviewed, with the attitudes concerned being found to be mostly permissive. The literatures on the influences of the social context in which young people grow up and become adults have also been reviewed. Finally, the literature on the impact of two constraints, economic disadvantage and alcohol use, which might hamper safer sex practices was also reviewed. In the next chapter, the methodology used for the study is discussed.

2.5 Conclusion

Despite the recognition of the subjective aspects of adolescents' sexuality, most scientific literature has focused on objective indicators, such as the age of subject at sexual debut, the behaviours that adolescents tend to practise, and the health-related outcomes of adolescent sexual activity. While the above-mentioned approach has helped to define the scope of the problem, it, nevertheless, fails to address the intrapsychic and interpersonal processes that influence whether intercourse occurs, and whether protection is used. Understanding the subjective dimensions of the activity is the key to developing effective initiatives to reduce risky sexual behaviours (Crockett *et al.*, 2003:371). In an attempt to shed some light on the subjective dimensions of students' sexuality, the current study described individual and social factors influencing students' sexual behaviours in the particular population identified.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The methodology chapter presented here describes the steps taken to achieve the set study objectives. The steps concerned include the type of study design used and the study setting, the population, the sampling method and the sample size, the method of data collection, and the data analysis conducted. The issues relating to reliability, validity and ethical considerations are also discussed.

3.2 Study setting

The current study was based on a population of students at a university campus situated in a rural area. The campus studied had two sites at the time of the study, one offering diploma level and the other offering degree level qualifications. The students were mostly black people who came from a previously disadvantaged background. In 2011, 2 031 first-year undergraduate students were registered for all faculties at the campus in question. The campus residences were too small to accommodate all registered students, with them being reported as being grossly overcrowded, with much unauthorised sharing of residence accommodation among the students. Some students resided at the nearby private residences, or in the rural villages, urban townships and informal settlements adjoining the campus.

3.3 Study design

A study design is a blueprint for maximising control over factors that could interfere with the study's desired outcomes (Burns & Grove, 2009:41). The current study used a quantitative, non-experimental, descriptive research approach. Quantitative research is a formal, objective, systematic process in which numerical data are used to obtain information about the world (Burns & Grove, 2009:22). A non-experimental research approach makes no attempt to minimise threats, which is to manipulate independent variables or to control the setting of the study (Gravetter & Forzano, 2006:248). In the study, information about the perceptions of students regarding their sexual behaviours at a university campus was obtained as they naturally occurred. This meant that there was no manipulation of independent variables or control of the setting, as indicated above.

Descriptive research typically involves measuring a variable or set of variables as they exist naturally. They offer researchers a way in which to discover new meaning, to describe what

exists, to determine the frequency with which something occurs, and to categorise information. The results from descriptive research can help researchers to capture interesting, naturally occurring behaviour (Gravetter & Forzano, 2006:323). A survey method of data collection technique was used, meaning that self-reported data were collected using a questionnaire. A survey is often conducted simply to obtain a description of a particular group of individuals (Burns & Grove, 2009:245). In this study, an attempt was made to describe the perceptions of sexual behaviours among a group of university students.

3.4 Population and sampling

The population is a particular type of individual or element that forms the focus of the study (Burns & Grove, 2009:343). An accessible population was used in the current study. It was reasonable for the researcher, as a novice researcher with no budget and only a limited amount of time available, to access only the first-year level students. An accessible population is the portion of the population to which the researcher has reasonable access (Burns & Grove, 2009:344). The target population of the present study consisted of all the undergraduate students who were registered at a university campus, irrespective of their age and residential status.

Sampling is a process of selecting a portion or subset of the designated population to represent the entire population. The purpose of sampling is to increase the efficiency of the study (LoBiondo-Wood & Haber, 2006:263-264). In this study probability, stratified random sampling was used.

The researcher used a stratified random sampling in this study to ensure representativeness of all faculties. There were three stratums. The first strata consisted of all first years in the university. The second stratum was based on faculties of the university. The third stratum was based on lecture halls within faculties. One lecture hall from each faculty was randomly selected for recruitment of participants. The researcher sampled randomly from one classroom per faculty according to number of participants who were available and willing to respond to the questionnaire. A total of 250 students participated in the study, which constituted 12.3% of the total population

Table 3.1. Indicating stratified random sampling N= 250

Faculties of a University	No of students per Faculty	Sample per lecture room/f	(%)
Education	746	92	36.8%
Health Sciences	409	50	20%
Engineering and Science	432	53	21.2%
Business Science and Law	444	55	22%
Total	2031	250	100%

Faculty of Business Science and Law with 444 registered students and 55 participants completed the questionnaire. In the Faculty of Education 746 students registered and 92 participants responded. The Faculty of Health Sciences registered 409 students and 50 responded. The Faculty of Engineering and Science registered 432 students and 53 responded.

A sample was recruited from four first year level lecture halls in all. The recruitment procedure was similar in all lecture halls. The researcher had a prior arrangement with the lecturers and was allocated time to recruit and collect data. A written informed consent was obtained from the participants. All participants who participated completed the questionnaires in their lecture halls in the presence of the researcher. Raosoft sample size calculator available from http://www.raosoft.com/samplesize.html was used to calculate the sample size. The sample of 250 in a population of 2031 has a margin of error of 5.81%, which is within acceptable limit.

3.4.1 Inclusion criteria

Inclusion criteria for the study were being registered for study at the campus, and being registered for a first-year level course even if it is not for the first time. The data were collected in the lecture halls in the presence of the lecturer, which helped to ensure that the participants were all at first-year level.

3.4.2 Exclusion criteria

An exclusion criterion for the study was being on a second, third or fourth year level of study and doing postgraduate study.

3.5 Data collection tool

A TPB questionnaire was constructed by the researcher using Likert scale rating and closed-ended questions. The structure of the questionnaire was adapted from AIDS Quest CD ROM. AIDS Quest is a resource for researchers and others developing HIV/AIDS related data collection tools. The content of the questionnaires was selected from the literature as the items that were cited as common among student population. The questionnaire had 5 sections.

The first section (section A) asked for the characteristics and the background of the participants. The responses included demographic data such as age and gender, sexual behaviours, like the age of the respondents at their sexual debut, the number of lifetime partners that they had had, and the details of their upbringing, such as whether the parent of the respondent was single or whether they had had both parents accessible to them, and the educational level of the parent(s) concerned. The section contained twenty (20) items. All questionnaires were in the English language, as all students who were at tertiary institutions understood the language well.

The next four sections measured the construct of the TPB in the following order: section B: attitude (ATT); section C: perceived social norms (PSN); section D: perceived behavioural control (PBC); and section E: behavioural intentions (BI), which were said to be the result of the three constructs. The six items that were appropriate to the target population and that appropriately assessed the sexual behaviours of the respondents were selected from the literature review.

For section B (i.e. the ATT) of the questionnaire, the indirect measurements measuring behavioural belief strengths for each item were used (Francis, Eccles, Johnston, Walker, Grimshaw, Foy, Kaner, Smith & Bonetti, 2004:14). The response format for each item in the section allowed for one of five ratings, ranging from 1 to 5. Rating 1 stood for ‘strongly disagree’; rating 2 for ‘disagree’; rating 3 for ‘somewhat agree’; rating 4 for ‘agree’; and

rating 5 for ‘strongly disagree’. The section contained nine items.

An error was committed, by the researcher, in constructing the ATT instrument and was identified after the instrument was used. The instrument yielded a low alpha coefficient of 0.3088 for reliability on completed questionnaires. The researcher then probed what could be the cause and identified the error. The researcher was supposed to have had an item measuring behavioural belief strength and a corresponding item measuring outcome evaluation (Ajzen, 2002:2). However, outcome evaluations were not measured in the instrument.

For section C (i.e. the PSN) of the questionnaire, indirect measurements measuring normative belief strengths and motivation to comply were used (Francis *et al.*, 2004:18). Three accessible referents were identified, namely the family, the partner and friends (Ajzen, 2002:12). A questionnaire item measuring normative belief strength for each of the six items mentioned earlier was constructed for each accessible referent. The corresponding questionnaire item measuring motivation to comply was also constructed for each item and for each accessible referent (Ajzen, 2002:12; Francis *et al.*, 2004:19). The section contained 36 items. The response format for each item in the section also allowed for one of five ratings, ranging from 1 to 5, as was described above.

For section D (i.e. the PBC instrument) two accessible control factors were identified from the literature, namely greater financial need and the state of being drunk. The first two questions in the section assessed the perceived availability of the accessible control factors stated. The indirect measurements measuring control belief strengths and control belief power for each of the six items were used (Ajzen, 2002:7; Francis *et al.*, 2004:22). This section contained 20 items. The response format for each item in the section also allowed for one of five ratings, ranging from 1 to 5, as was described above.

For section E (i.e. the BI instrument), the generalised method of measuring behavioural intentions with two items, intending and trying, was used (Francis *et al.*, 2004:12). The section contained 12 items. The response format for each item in the section also allowed for one of five ratings, ranging from 1 to 5, as was described above.

3.6 Pilot study

Of the participants who were recruited for the pilot study, all 29 completed the set questionnaire. On completion of the questionnaire, the participants in the pilot study were requested verbally to comment on the understandability and acceptability of the items on the instrument. Their perceptions regarding the length of the questionnaire, its understandability, the acceptability of the items, and the formatting of the instrument were also requested (Burns & Grove, 2009:382). The comments were to be used to revise the instrument before it was administered to the participants of the study. No valuable comments were made, and therefore no changes were made to the initial draft questionnaire. The pilot study participants were recruited from one site on campus, which was not included in the formal study.

3.7 Reliability and validity

3.7.1 Reliability

The reliability of a research instrument is defined as the extent to which the instrument yields the same results on repeated measures. A reliable measure is one that can produce the same results if the behaviour is measured again on the same scale. Reliability is, therefore, concerned with consistency, accuracy, precision, stability, equivalence and homogeneity (LoBiondo-Wood & Haber, 2006:345) and only consistency was measured in the current study. Cronbach's alpha coefficient was used to test the reliability of the four instruments employed in the study.

3.7.1.1 Internal consistency reliability

The reliability of a measure denotes the consistency of measures obtained in the use of a particular instrument, and indicates the extent of random error in the measurement method used (Burns & Grove, 2009:377). The internal consistency reliability of a survey instrument is a measure of the reliability of different survey items that are intended to measure the same characteristic (Gliem & Gliem, 2003:83). For example, if an instrument is designed to measure an attitude, then each time that the instrument is administered to a subject, the results should be approximately the same.

For a researcher-developed Likert scale instrument, internal consistency reliability needs to be reported. The Cronbach's alpha reliability coefficient test was used for this study. Cronbach's alpha is a test reliability technique that requires only a single test administration

to provide a unique estimate of reliability for a given test. It is the average value of the reliability coefficients that one would obtain for all possible combinations of items split into two half-tests (Gliem & Gliem, 2003:84). The alpha coefficient ranges from 0 to 1. The closer that Cronbach's alpha coefficient is to 1, the greater is the internal consistency of the items on the scale (Gliem & Gliem, 2003:87). A coefficient of 0.70 will be considered acceptable for this study, since this is a newly developed instrument (Burns & Grove, 2009:377-379).

The study questionnaire administered to participants in this study had four measuring instruments, namely attitudes towards sexual behaviour (ATT), perceived social norms of sexual behaviours (PSN), perceived behavioural control (PBC) and behavioural intentions (BI). The Cronbach's alpha coefficients for each measuring scale are reported below.

Table 3.2: Internal consistency reliability (Cronbach's alpha coefficients) of ATT, PSN, PBC and BI instruments

Instrument	No. of participants	No. of items	Alpha
ATT	240	10	0.3088
PSN	236	36	0.8928
PBC	240	20	0.8112
BI	239	12	0.8383

Table 3.2 above illustrates that the alpha coefficient test for the ATT instrument yielded a result of .3088, which was lower than the acceptable coefficient of more than 0.70, and which, therefore, affected the reliability of the results. This could be due to the omission committed during the construction of the instrument. According to Ajzen (2002:2), to measure an attitude towards behaviour, the belief strength and outcome evaluation should be measured for each item on the instrument. The outcome evaluation was erroneously not measured for this instrument.

The alpha efficiency test for the SN instrument yielded a coefficient of .8928, which was above 0.70, and therefore acceptable. The PBC instrument yielded a result of .8112, which was also acceptable. The final scale, the BI instrument, had an acceptable coefficient of .8383.

3.7.2 Validity

The validity of an instrument determines the extent to which it actually reflects the abstract constructs being examined. Validity, like reliability, is not an all–or–nothing phenomenon, but, rather, a matter of degree. Defining the validity of an instrument requires years of work. Validity varies from one sample to another and from one situation to another; therefore, validity testing actually validates the use of an instrument for a specific group or purpose, rather than the instrument itself (Burns & Grove, 2009:380-381). The study concerned only discussed the content-related validity evidence that was obtained in the present research.

According to Burns and Grove (2009:381), the relevant evidence was obtained from three sources, namely the literature, representatives of the relevant population, and content experts. As was mentioned previously when discussing the questionnaire development, the six behaviours used as action elements were chosen from the literature as they were cited as being the most common among the university students who were used as the subjects of the study. Face validity, which is part of content-related validity evidence, is discussed next.

3.7.2.1 Face validity

Face validity is an intuitive type of validity, in terms of which colleagues and subjects are asked to read the instrument, and to evaluate the content, in terms of whether it appears to reflect the concept that the researcher intends to measure. The use of such a procedure might be useful in the tool development process, in relation to determining the readability and clarity of content (LoBiondo-Wood & Haber, 2006:263). The researcher, in her endeavour to assure the validity of the instruments used, asked three of her colleagues to evaluate the questionnaire before it was administered to the pilot study participants. The colleagues were campus professional nurses from three different campuses who deal with student health issues, including their sexual and reproductive health.

The colleagues were asked to comment on the clarity and relevance of the items on the questionnaire, and to add any items that they felt would add value to the investigation. The draft questionnaire was emailed to them, together with the form, on which they were to write their comments. They all felt that the questionnaire was clear, and that it included all the necessary items. Accordingly, no changes were made to the questionnaire. The questionnaire was then pilot studied, as was discussed in the previous section.

3.8 Data collection

The required data were collected by administering the questionnaire to participants in their own lecture halls. A week prior to the data collection, the researcher visited the lecturers concerned with written letters requesting their permission to address and to recruit students for the study in the lecture halls where they lectured. The researcher secured an appointment date and time with each lecturer concerned. The lecturers informed the students about the coming researcher beforehand.

On the agreed date and at the appointed time, the researcher walked into the lecture hall and explained the nature and objectives of the study to the students. The researcher gave them sufficient time to ask questions, all of which she answered. The instructions for the study were given once to the entire group of willing students. The written informed consent form was read out to the prospective participants, and those who agreed to proceed with the study signed the necessary consent forms. The information part of the consent form remained with the participant, with the signed part being given to the researcher. The forms were later kept locked away in the researcher's office.

The participants then completed the questionnaires, which took approximately 45 minutes to complete. The researcher waited for the participants to complete the questionnaire, whereupon they were required to place them in a box that had been specifically allocated for the purpose. The box, containing the completed questionnaires, was taken by the researcher and kept in a locked cupboard in the researcher's office.

3.9 Data analysis

Each questionnaire was later allocated a specific number, with incomplete questionnaires being removed from the study. Out of the 250 questionnaires, the 10 that had been found to be incomplete were not included in the analysis. The 240 completed questionnaires were then analysed.

The data analysis was done by a statistician using the Statistical Package of Social Sciences (SPSS) version 18. The SPSS is one of the most popular comprehensive statistical software packages that are used in the social sciences. It is a computer program that performs statistical calculations and which consists of two basic components: a data matrix and a set of statistical commands (Gravetter & Forzano, 2006:485).

The researcher captured the data on the completed questionnaires into a spreadsheet that had previously been prepared by the statistician, and then emailed it to the statistician. Descriptive statistics in the form of a frequency distribution to organise data in a way that gives meaning and insight were performed. (Burns & Grove, 2009:470). A multiple regression analysis was also performed. Such an analysis is a statistical technique that allows for the predicting of a score on a single variable, on the basis of the scores received by the individual concerned on several other variables. The analysis in question predicted the participants' sexual behaviour scores on the basis of their scores on the ATT, PSN, PBC and BI instruments previously mentioned.

3.10 Summary

The current chapter discussed the setting and design of the study, as well as the population and sampling method used. The construction of the data collection tool, how it was piloted, and the method used for ensuring its reliability and validity were also discussed. Lastly, the data collection process and the data analysis method were also discussed. The next chapter interprets and presents the findings of the study.

CHAPTER FOUR: RESULTS

4.1 Introduction

The focus of the current chapter is on presenting the results and the statistical analyses used to answer the set research question. The previous chapter described the steps taken to achieve the study objectives.

4.2 Presenting the study findings

In this chapter, the characteristics and the background of participants are first discussed, followed by their sexual behaviours. The psychometric properties involved are lastly discussed.

4.2.1 Characteristics and background of the participants

The results presented here come from a total of 240 questionnaires that were completed and returned by the participants concerned in the study. The 240 questionnaires that were analysed constituted 96% of the total number of questionnaires that were distributed. The characteristics of the participants are discussed in the following order: age; gender; race; marital status; religion; place of residence; and alcohol consumption. This is followed by a discussion of their background characteristics in the order: upbringing (home type); parents' yearly income; parents' education levels; and the participant's source of information on sexuality.

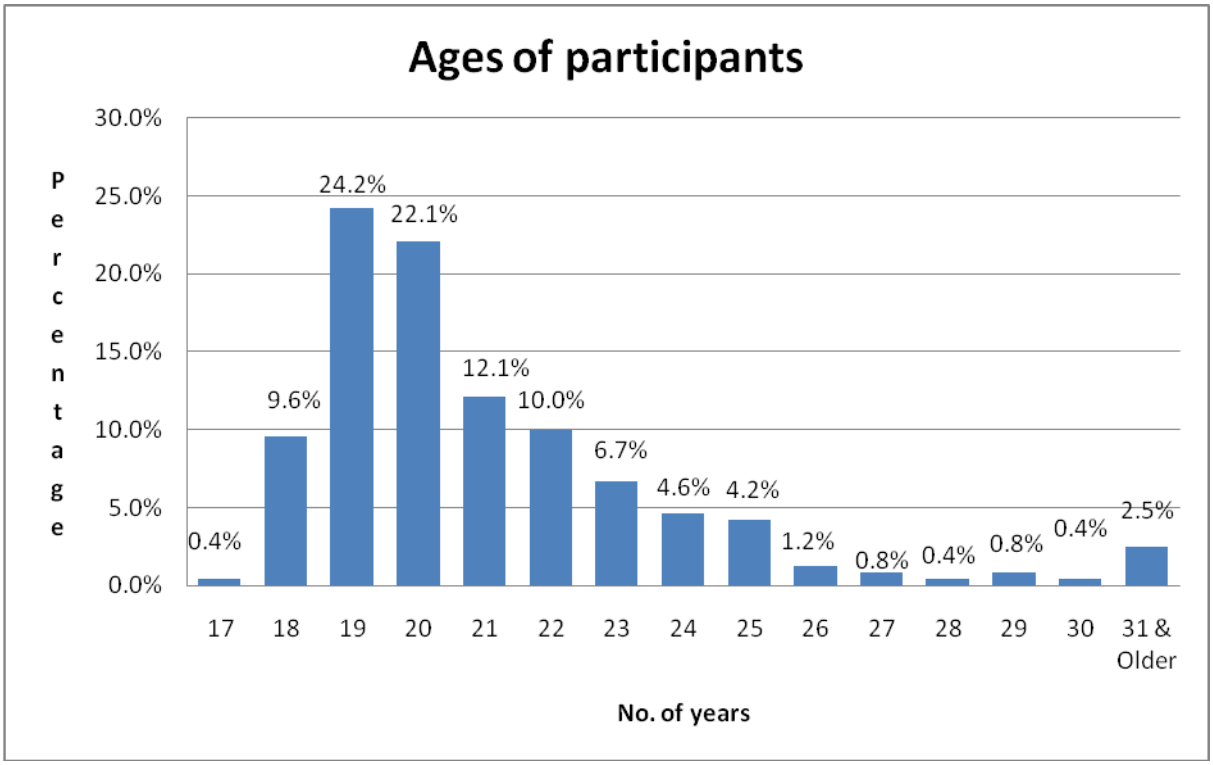

Figure 4.1: Age of the participants

According to Figure 4.1 above, the participants were between the ages of 17 years and 31 years, and older. A significant number of participants were aged 19 (24.2%) and 20 (22.0%) years old. The age range encountered was well expected, as most students in South Africa tend to matriculate at 18 or 19 years of age. According to the South African Schools Act No. 84 of 1996 (Republic of South Africa, 1996), it is compulsory for every child to be at school at the age of 7. The admission age of a learner to school is 6 years old, turning 7 by 30 June of the particular year concerned. As it usually takes 12 years to matriculate, most students tend to matriculate at the aforesaid age and to commence higher education (if they decide to do so, and can do so, given their results in the matriculation examination) at the age of 19 or 20.

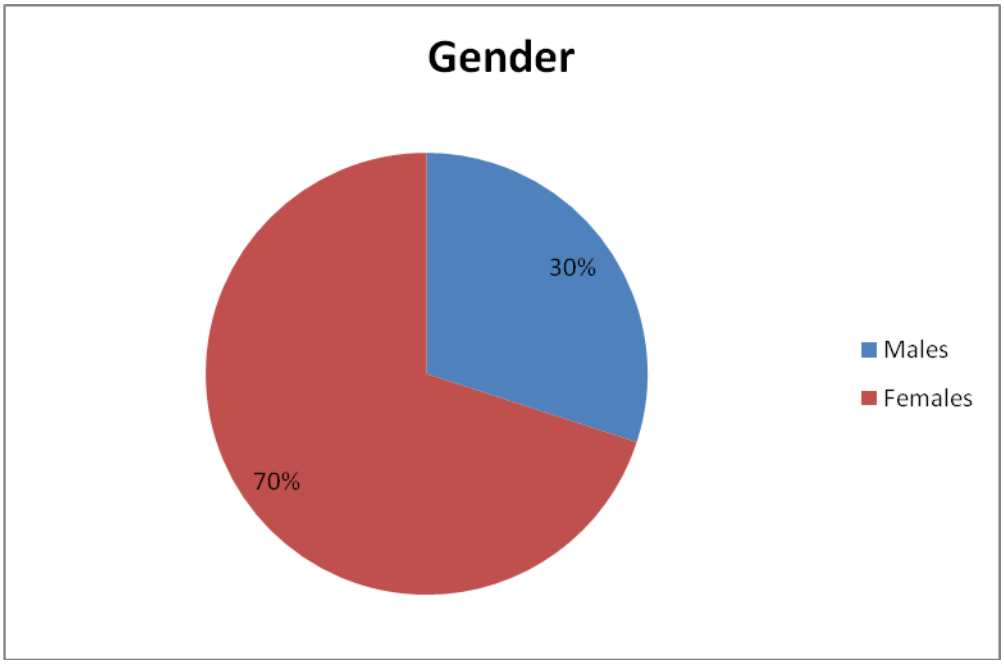

Figure 4.2: The gender of the participants

According to Figure 4.2 above, a total of 168 (70%) of the participants were women, whereas only 72 (30%) were men. According to the Education Statistics in South Africa (2009:31), the headcount enrolment of students in all higher education institutions by gender was approximately 282 045 (54%) women and 239 361 (46%) men in the year 2009.

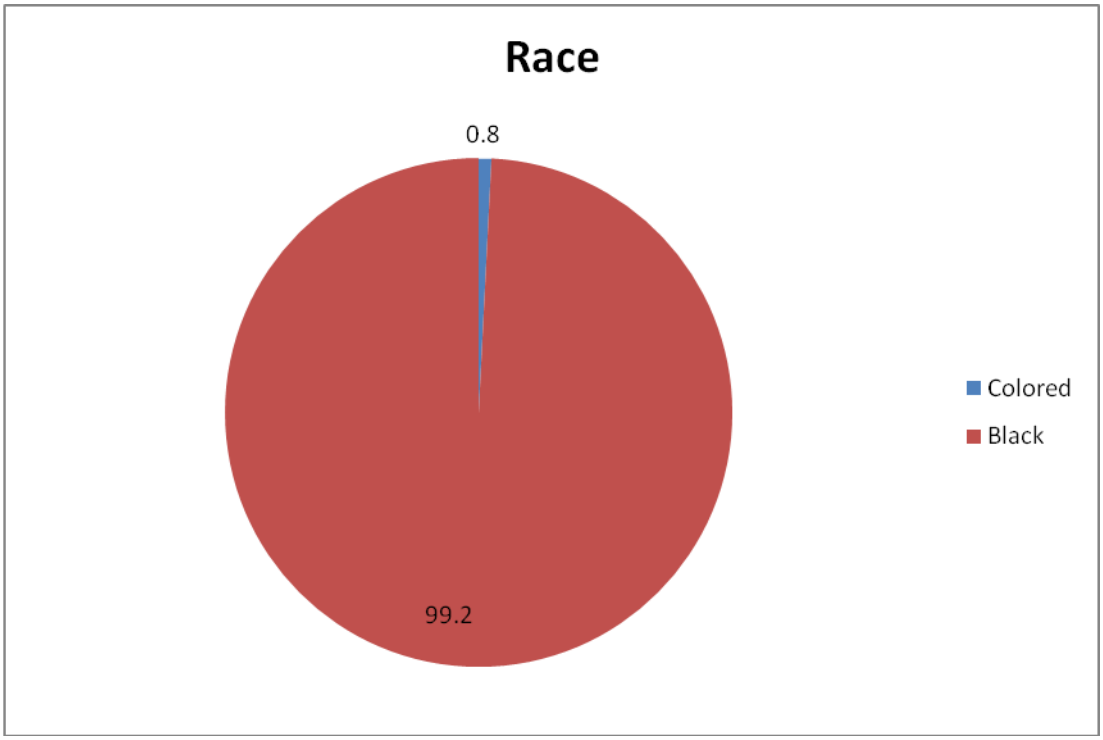

Figure 4.3: The race of the participants

Figure 4.3 above illustrates that almost all of the participants (238; 99.2%) were black people, with only 2 (0.8%) being coloured people. This is a well representation of race distribution at the institution under study as most students were black people. According to the Department of Basic Education (Republic of South Africa, Department of Basic Education, 2010:31), 25 015 (98.9%) of the total headcount of students enrolled at the institution studied were black people. This could also have been due to the fact that the institution surveyed was historically disadvantaged and rural.

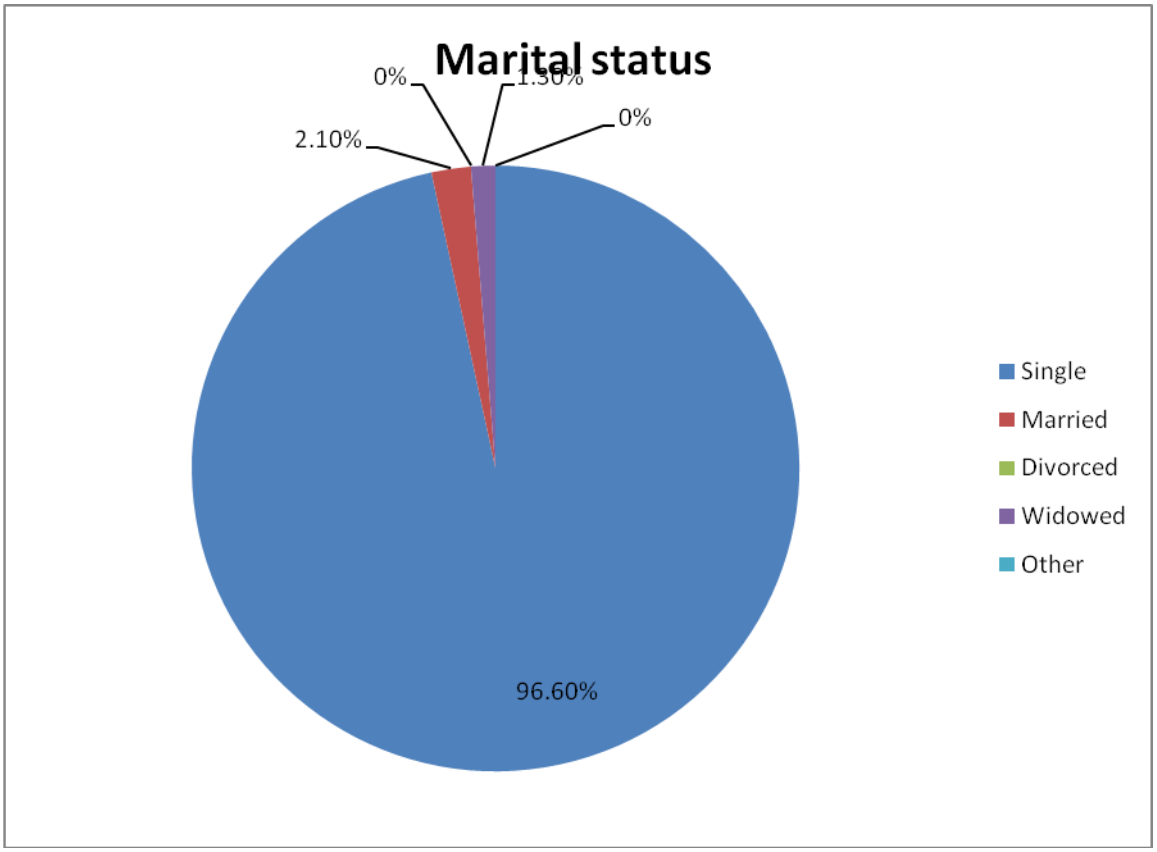

Figure 4.4: The marital statuses of the participants

Figure 4.4 above illustrates that most of the participants (232; 96.6%) were unmarried, whereas only 5 (2.1 %) of the participants were married, and only 3 (1.3%) of the participants were widowed. An important feature of South African society is that marriage occurs at a relatively older age. According to Statistics South Africa' *Marriages and Divorces: Statistical Release P0307* (2008:2), the median age for the bridegroom was 32 and the median age for the bride was 29 in civil marriages. In terms of customary marriages, the median age was 31 years for the bridegroom and 25 years for the bride.

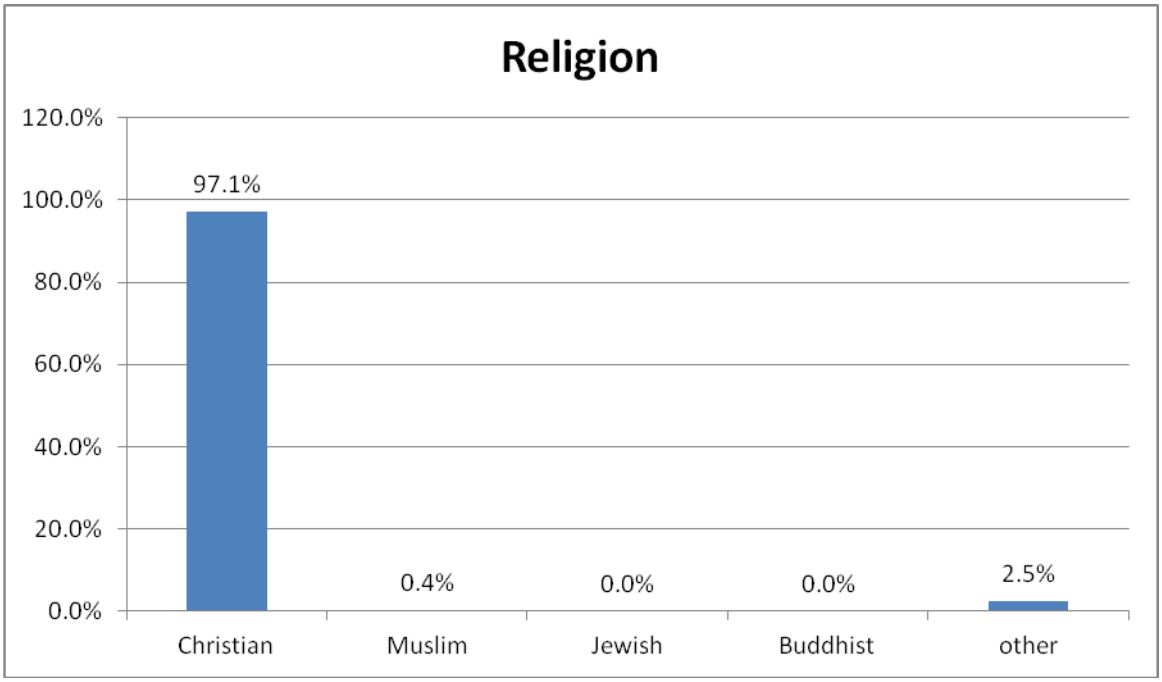

Figure 4.5: Religions in which the participants were raised

Figure 4.5 above illustrates that most of the participants (233; 97.1%) in this study indicated that they were raised as Christians, with only 1 (0.4%) participant being raised as a Muslim and only 6 (2.5%) participants describing themselves as having been raised in 'other' religions. The category 'other' did not differentiate between atheists and those who felt that their religion did not fit into the predetermined categories. Statement of inclusion in the category, therefore, could have meant being raised by either of the above. No participants reported being raised in Jewish and Buddhist religions.

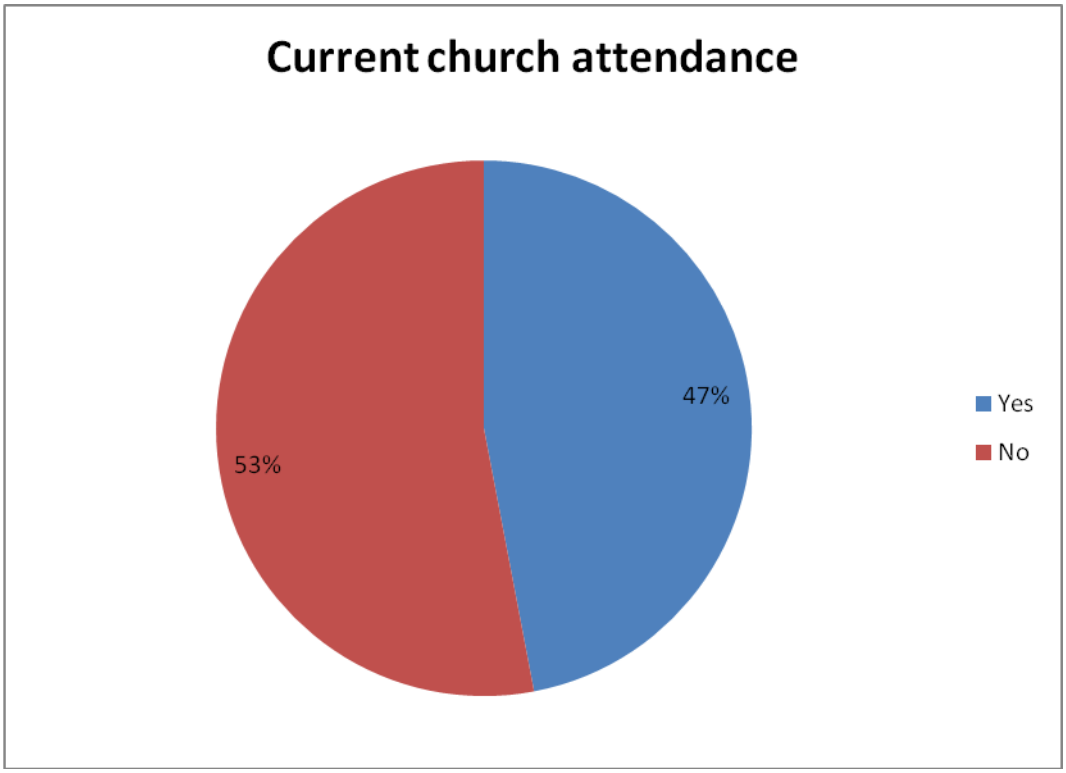

Figure 4.6: Current church attendance by participants

Figure 4.6 above illustrates that only 113 (47%) of the participants reported attending church services currently. The current non-attendance of church services was indicated by 127 (53%) of the participants. The question concerned religious involvement as it was believed to influence sexual behaviours. The primary motivation for sexual abstinence in campus communities has been noted by other researchers to be related to religious beliefs (Fako, 2010:120; HEAIDS, 2010:79).

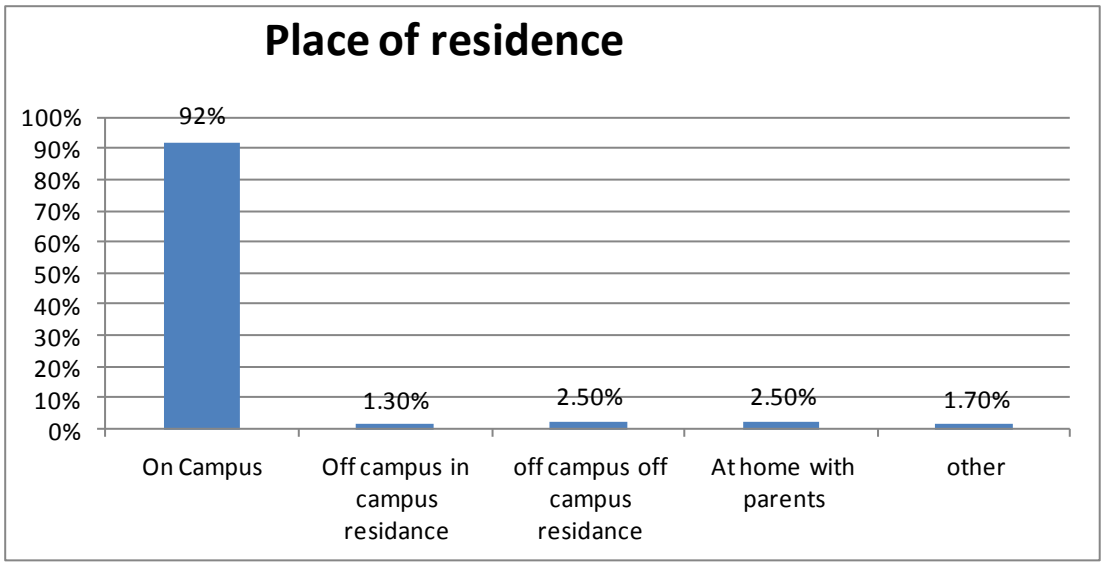

Figure 4.7: The place of residence of participants

Figure 4.7 above illustrates that most (221; 92%) of the participants reported that they resided in the campus residences that are on campus and (3; 1.3%) of participants reported that the resided in the campus residences that are off campus. Whereas only (16; 6.7%) of the participants resided outside the campus residences. This number is comprised of (6; 2.50%) of participants that reported that they reside off campus residences, another (6; 2.50%) at home with parents and (4; 1.70%) reported that they reported at 'other'. This could mean that these participants resided in either of the predetermined categories.

A serious problem of squatting had been reported at the institution being studied. Students with legitimate rights to beds were leasing out space to other students. The situation was in line with the reporting of there sometimes being up to six students sharing a space that had been meant to house only one (CHE, 2011:14).

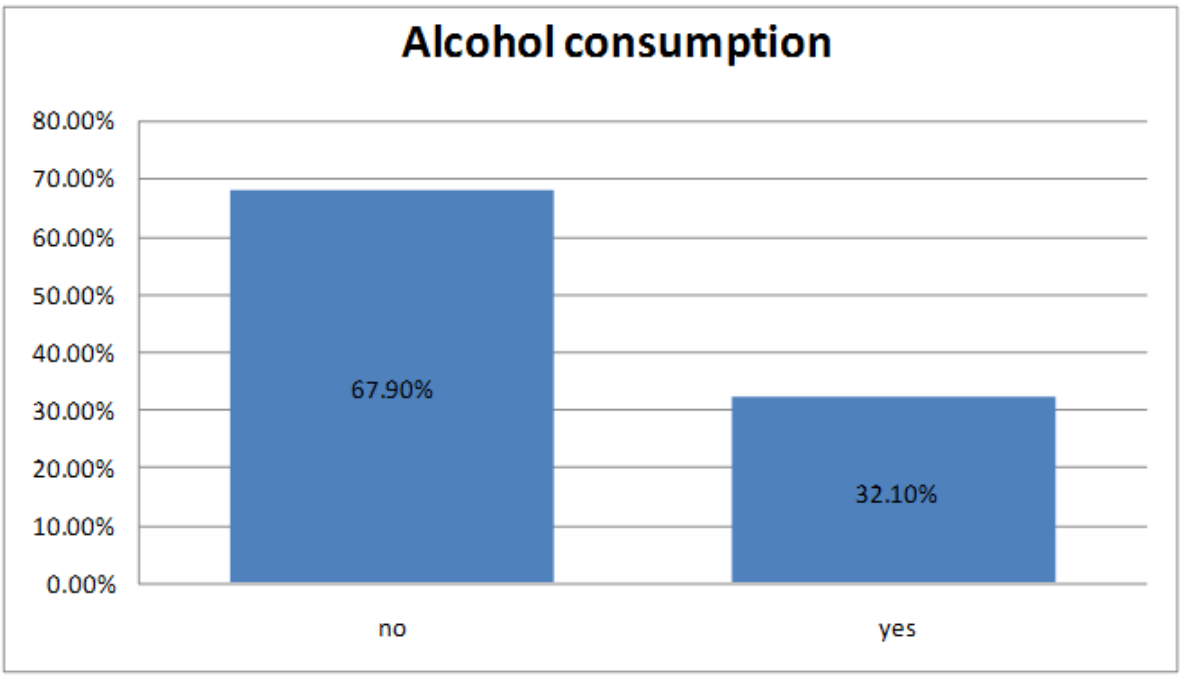

Figure 4.8: The alcohol consumption of participants

Figure 4.8 above shows that 77 (32.1%) of the participants reported that they drink alcohol and 163 (67.9%) of participants reported that they do not drink alcohol. Alcohol use has been shown to be prevalent among college students, and might contribute to the elevated rates of sexual risk-taking involved. Drinking alcohol has been reported as being strongly related to the decision to have sexual relations, as well as to participation in indiscriminate forms of risky sex (e.g. having multiple or casual sex partners), but has been inconsistently related to protective behaviour (Cooper, 2002:105; Brown & Vanable, 2007:2949).

Low socio-economic status, low levels of parental education, and lack of parental guidance and support could influence young people's sexual behaviours by reducing access to information about safe sex practices or by inhibiting their ability to put such knowledge into practice (Hallman, 2004:24). As was mentioned above, the background characteristics of the participants will be discussed in the following order below: upbringing (home type); parents' yearly income; parents' education levels; and source of information on sexuality.

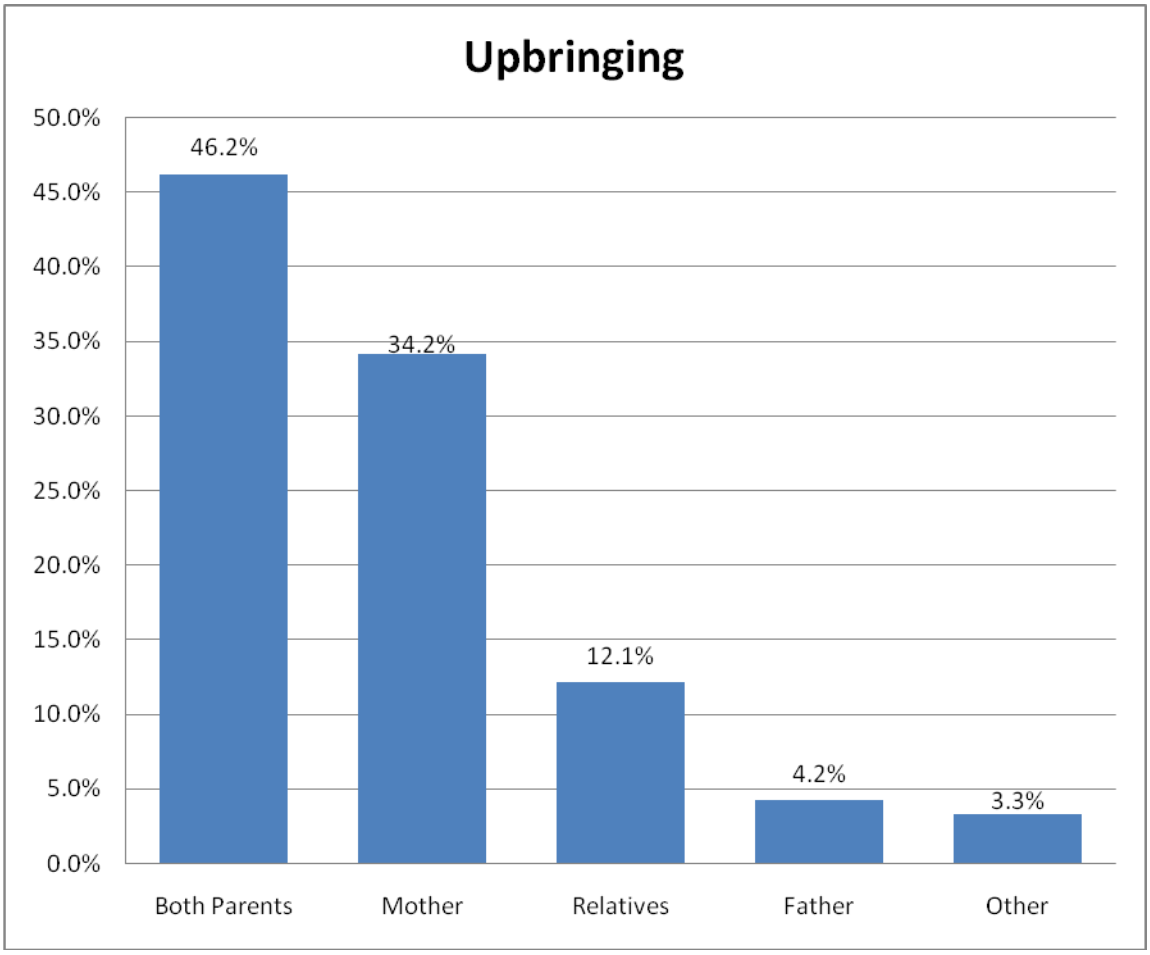

Figure 4.9: The upbringing (home type) of the participants

Figure 4.9 above illustrates that 111 (46.2%) of the participants were brought up by both parents. A total of 82 (34.2%) of the participants were brought up by their mothers. A total number of 29 (12.1%) of the participants were raised by relatives. A total number of 10 (4.2%) participants were raised by their fathers, and a total number of 8 (3.2%) participants were raised by other people. Olubunmi (2011:18) discovered that home type contributes to the prediction of involvement in the premarital sex of adolescents. Adolescents whose parents are still married to each other are far less likely to have under-age sex. Fako (2010:122) also discovered that family cohesion, emotional bonding with important others, and the stability of home environment tend to have a determining effect on sexual activity.

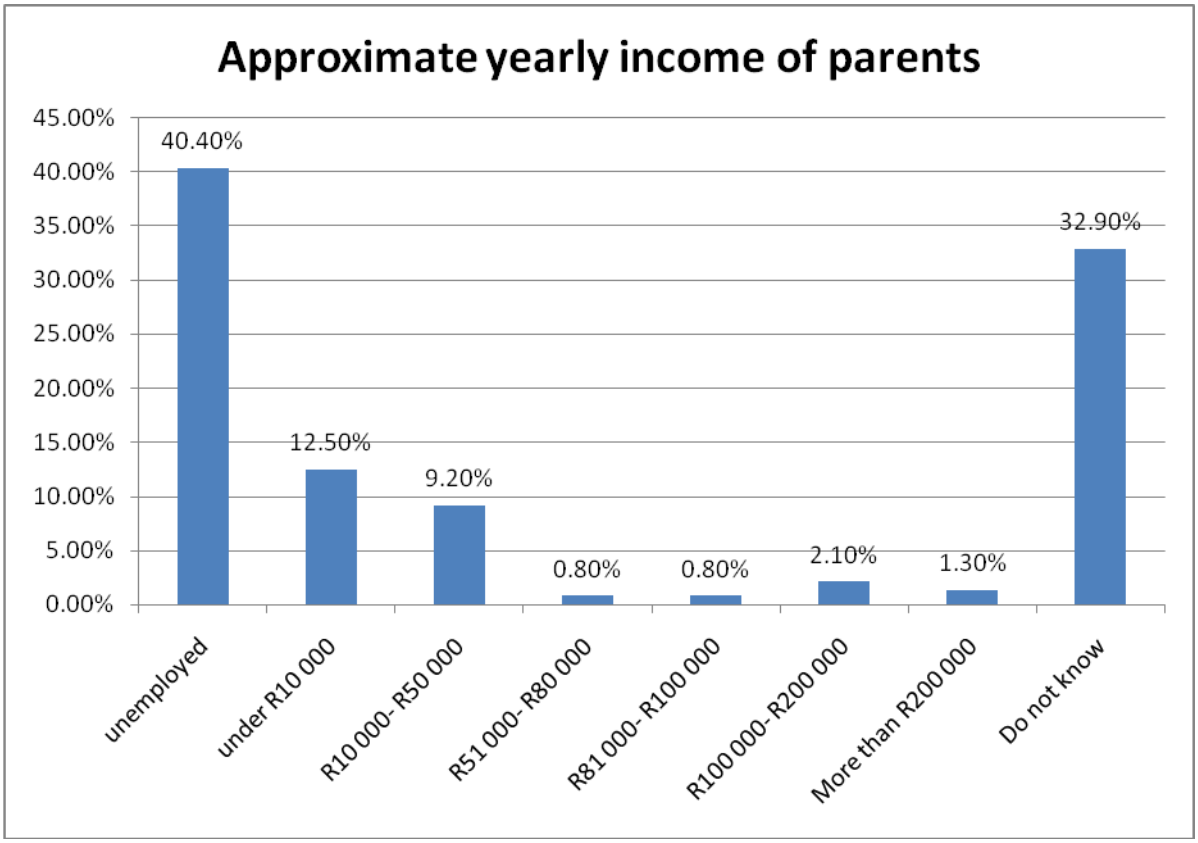

Figure 4.10: parents' yearly income

Figure 4.10 above shows that 97 (40.4%) of the participants reported that their parents were unemployed, whereas 79 (32.9%) of the participants indicated that they did not know their parents' income. A total number of 56 (23.3%) participants indicated that their parents earned less than R100 000 per annum. This is comprised of 30 (12.5%) participants that indicated that their parents earned under R10 000 per annum, 22 (9.2%) participants that indicated that their parents earned R10 000 to R50 000, 2 (0.8%) participants that reported that their parents earned R51 000 to R80 000 and another 2 (0.8%) participants that indicated that their parents earned R81 000 to R100 000. Only 8 (3.4%) participants reported that their parents had an income of more than R100 000 per annum. This is comprised by 5 (3.4%) participants that reported that their parents earned R100 000 to R200 000 and 3 (1.3%) participants that reported that their parents earned more than R200 000.

The state of economic disadvantage evidenced above was to have been expected, as the institution surveyed was reported to be straddling the rural and periurban divides of the Eastern Cape, which is characterised by widespread poverty, illiteracy, unemployment and poor access to basic services (CHE, 2011:8). Relative economic disadvantage has been

reported to increase the likelihood of a variety of unsafe sexual behaviours and experiences significantly (Hallman, 2004:24).

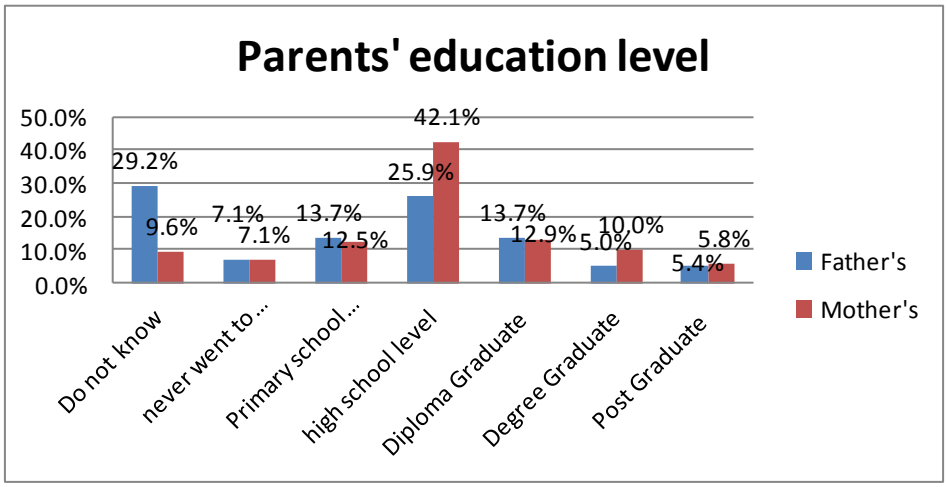

Figure 4.11: Parents' educational level

Figure 4.11 above illustrates the educational levels of the participants' parents. The results show that 101 (42.1%) of the participants reported that their mothers had a high school education, with 70 (29.2%) of the participants not knowing their fathers' education levels. Of the participants, 62 (25.9%) reported that their fathers had a high school education. Of the participants, 33 (13.7%) reported that that their fathers had a diploma, and another 33 (13.7%) of the participants reported that their fathers had a primary-level education.

Of the participants, 31 (12.9%) reported that their mothers had a diploma-level education, and 30 (12.5%) of the participants reported that their mothers had a primary-level education. A total of 24 (10%) participants reported that their mothers had a degree-level education, and 23 (9.6%) of the participants reported that they did not know what their mother's level of education was. A total of 17 (7.1%) participants reported that their fathers had never attended school and another 17 (7.1%) of the participants also reported that their mothers had never attended school.

A total number of 14 (5.8%) of the participants reported that their mothers had a postgraduate-level education, and 13 (5.3%) of the participants reported that their fathers had a postgraduate-level education. Lastly, a total of 12 (5.0%) of the participants reported that

their fathers had a degree-level education. Parents' ability to discuss sexuality with their children has been reported as being influenced by the parents' level of education. The parents' education might enhance their knowledge of sexual and reproductive health (SRH), and tends to broaden their outlook towards health. Such positivity might, in turn, reduce the barriers that otherwise make it difficult to discuss sexuality (Wamoyi *et al.*, 2010:15).

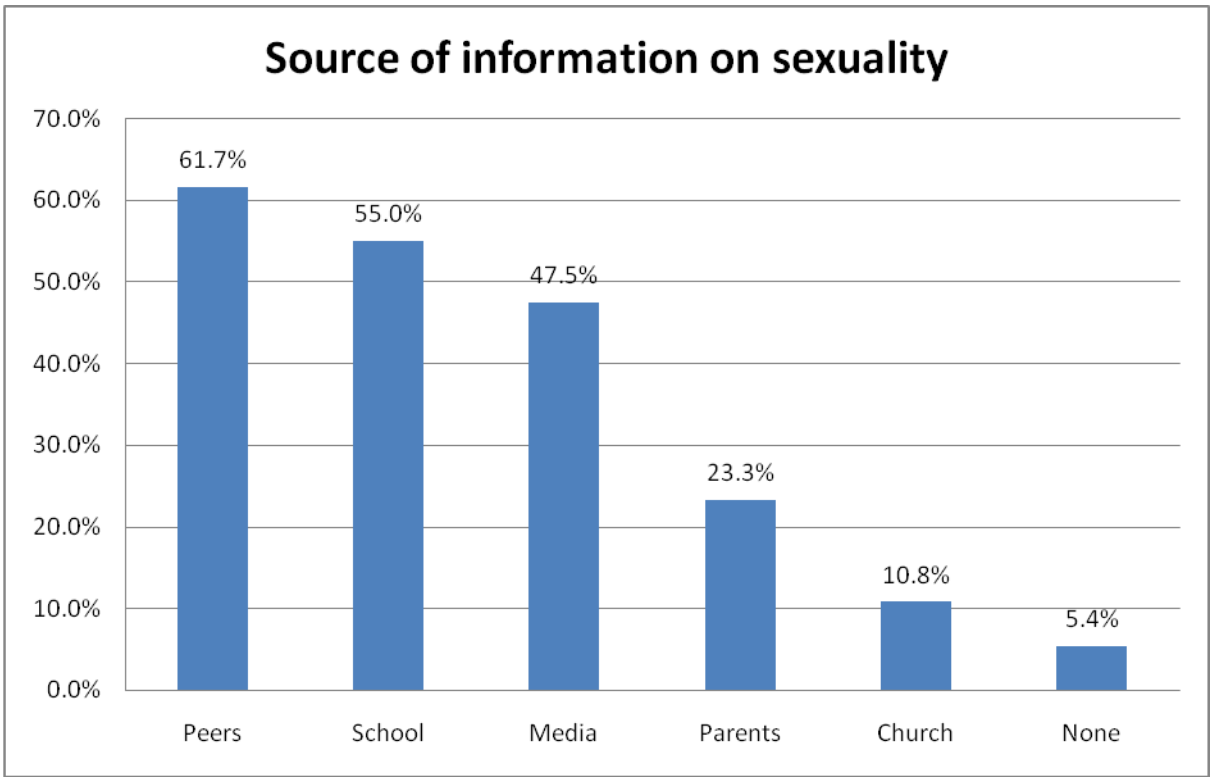

Figure 4.12: Participants' source of information on sexuality

Figure 4.12 above illustrates that a total number of 148 (61.7%) of the participants reported that they had received information from their peers. This was followed by 132 (55%) participants who reported receiving information from the school(s) that they had attended. A total number of 114 (47.5%) participants reported having accessed information via the media. A mere total of 56 (23.3%) participants reported receiving information from parents, with only 26 (10.8%) participants had received information from the church. This is of concern, since such sources are supposed to plant the values and morals pertaining to sexuality. A small number of 13 (5.4%) participants reported that they had never received any information on sexuality.

The participants were asked to indicate all sources of information on sexuality that applied to

them. The total percentages, therefore, do not add up to 100, as some participants stated that they received information from more than one source. Peers were at the top of the list, followed by the school that they had attended. The media was then followed by the church and lastly those who reported having never received any information on sexuality.

4.2.2 Sexual behaviours of participants

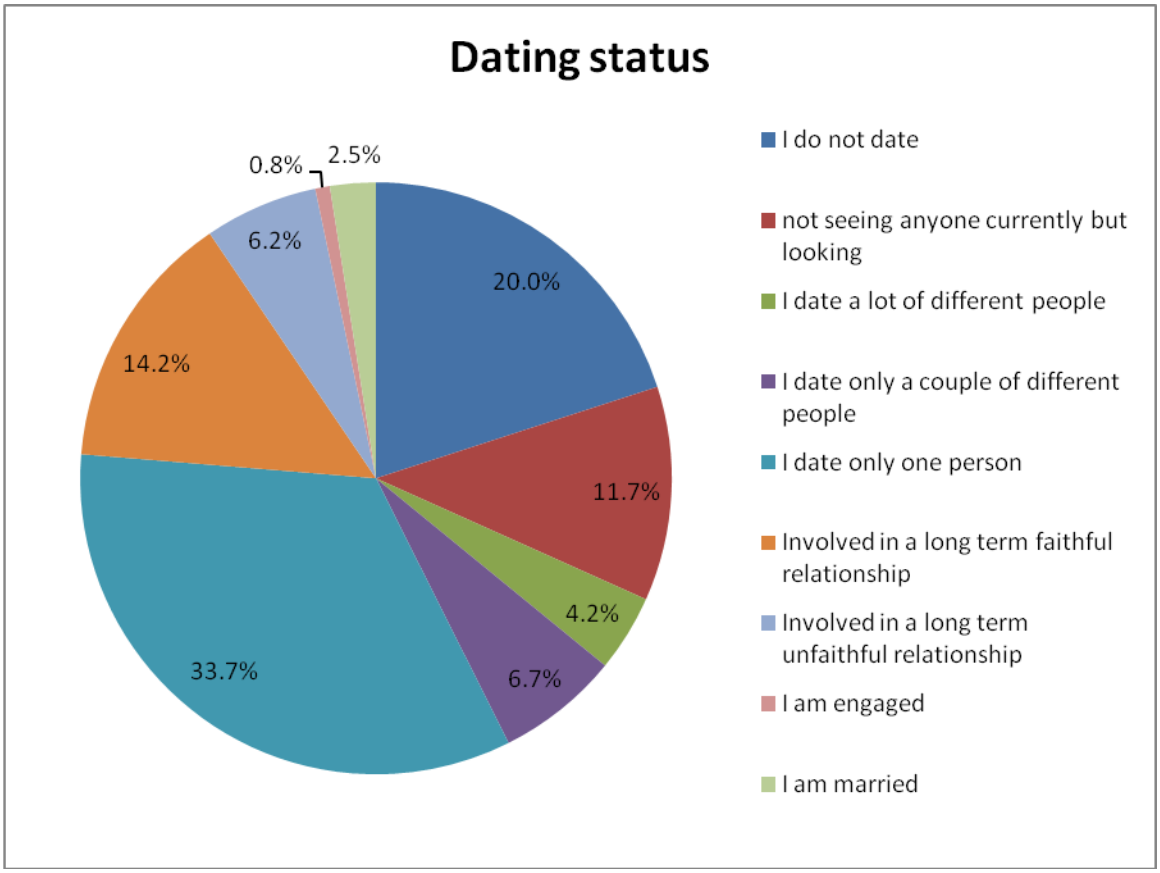

Figure 4.13: Dating status of the participants

Figure 4.13 above illustrates that 48 (20.0%) of the participants reported that they were not dating, while 28 (11.7%) of the participants reported that they were not dating currently, but were looking for dates. A total of 76 (31.7%) of the participants reported that they were not dating currently. A total number of 81 (33.7%) of the participants reported that they were dating only one person. A total number of 10 (4.2%) of the participants reported that they were dating many different people, and 16 (6.7%) of the participants reported that they were dating only a couple of people. A total of 26 (10.9%) participants reported dating more than one person at the time of the study.

The relatively small number of 34 (14.2%) participants reported being in long-term (i.e.

longer than 6 months) faithful relationships. A total number of 14 (6.2%) of the participants reported that they were in long-term (i.e. more than 6 months) *un*faithful relationships. A small total number of 6 (2.5%) participants reported that they were married, and only 2 (0.8%) of the participants reported that they were engaged at the time of the research. This indicated that 31.7% participants reported that they are not dating, 51.7% participants reported being in monogamous relationships and only 17.1% participants reported being in polygamous relationships.

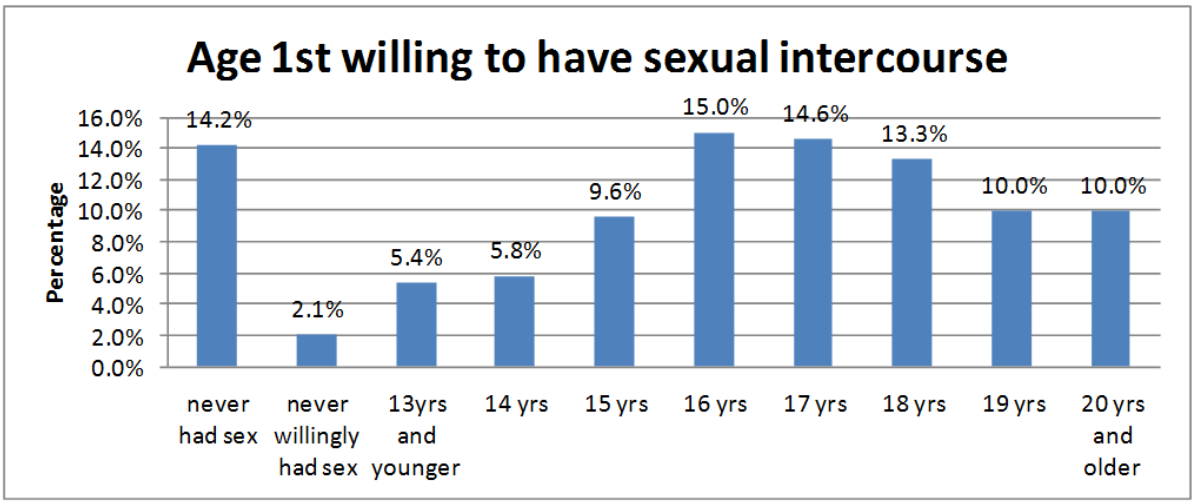

Figure 4.14: Age at sexual debut of participants

Figure 4.14 above illustrates that 34 (14.2%) of the participants reported that they had never before had sexual relations, of whom 9 (12.5% of total number of male participants) were men and 25 (14.9% of the total number of female participants) were women. The male participants in the study reported having a sexual debut at a much earlier age than did the female participants. Five (2.1%) of the participants reported never willingly have had sex before, with 1(1.4%) being a man and 2 (2.4%) being women. Of the 13 (5.4%) participants who reported having a sexual debut at 13 years of age or younger, 11 (15.2%) were men and 2 (1.2%) were women. Of the 14 (5.8%) participants who reported having had their sexual debut at the age of 14 years, 8 (11.1%) were men and 6 (3.6%) were women.

From the age of 15 years onwards, in this study, the pattern of sexual behaviour was found to have changed. Of the 23 (9.6%) participants reporting their sexual debut at 15 years old, 12 (16.7%) were men and 11 (6.5%) were women. A total number of 36 (15.0%) of the participants had experienced their sexual debut at the age of 16 years, with 12 (16.7%) being

men and 24 (14.3%) being women. Of the 35 (14.6%) participants who had had their sexual debut at 17 years of age, 7 (9.7%) were found to be men and 28 (16.6%) women. A total number of 32 (13.3%) participants had had a sexual debut at the age of 18 years, of whom 7 (9.7%) were found to be men and 25 (14.9%) were found to be females. A total number of 24 (10.0%) of the participants had had their sexual debut at the age of 19 years, with 1 (1.4%) of the participants being a man and 23 (13.7%) being women. Another total number of 24 (10%) participants had had their sexual debut at 20 years and older, with 4 (5.5%) being men and 20 (11.9%) being women.

The findings are almost similar to the findings of the study that was conducted by the Human Sciences Research Council (HSRC) (2009:39), indicating that less than 10% of respondents had had their sexual debut before the age of 15 years. They also noted that, in each year before they were 15 years old, twice as many boys were found to have started sexual relations earlier in comparison with girls, and the differences were statistically significant. The same observation also hold true in the current study.

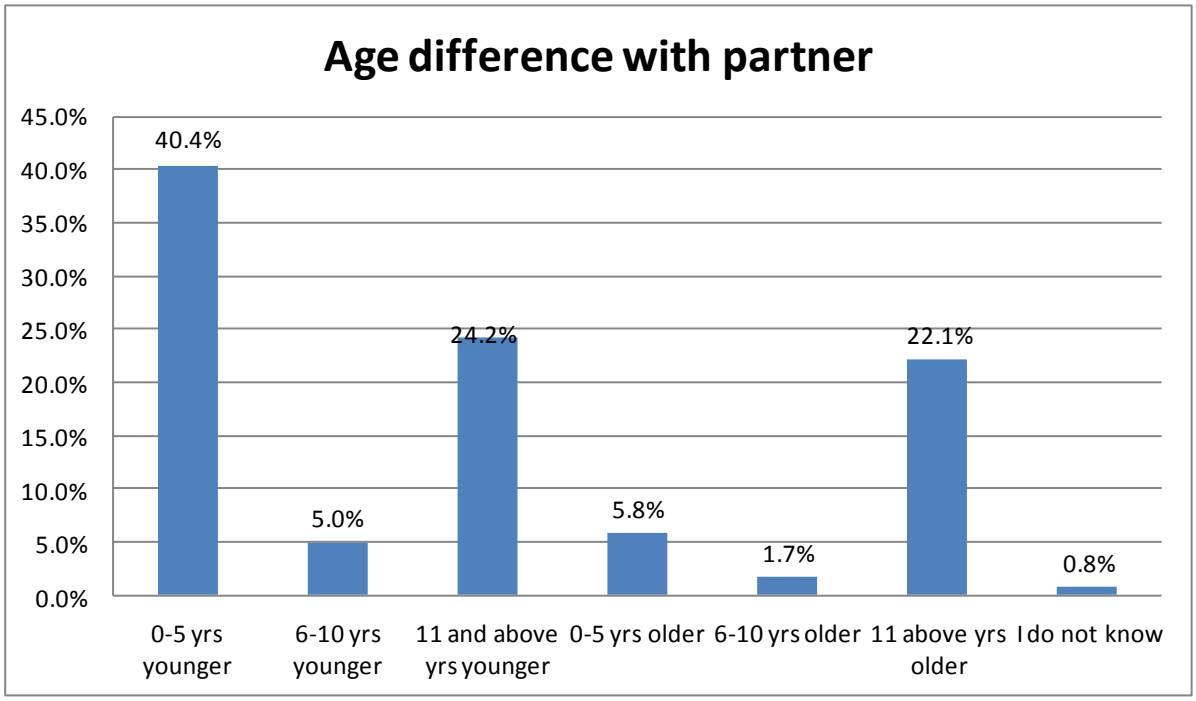

Figure 4.15: The age difference between participants and their partners

In the current study, most (155; 64.6%) of the participants reported that they had a sexual partner who was aged within 5 years of their own age. Figure 4.15 above illustrates that 51 (70.8%) of the male participants reported that they had a sexual partner who was 0 to 5 years

younger than them, and 2 (2.7%) of the male participants reported having a partner who was 0 to 5 years older than them. Regarding the female participants in the study, 46 (27.3%) reported having a sexual partner who was 0 to 5 years younger than them and 56 (33.3%) reported having a partner 0 to 5 years older than them.

A total of 26 (10.8%) of the participants reported that they had partners who were 6 to 10 years different in age from their own age. Figure 4.15 above illustrates that 2 (2.8%) of the male participants had a sexual partner who was 6 to 10 years younger than themselves. No male participant reported having a partner who was 6 to 10 years older than themselves. Regarding the female participants, 10 (5.9%) reported having a partner 6 to 10 years younger than them and 14 (8.3%) reported having a sexual partner who was 6 to 10 years older than them.

Only a total number of 6 (2.5%) participants reported that they had a sexual partner who was 11 or more years older than themselves. Figure 4.15 above illustrates that no male participant reported that they had a sexual partner who was 11 or more years younger than themselves and only 1 (1.4%) male participant reported having a sexual partner who was 11 years or more older than himself. Of the female participants in the study, only 2 (1.2%) reported having a sexual partner who was 11 or more years younger than themselves, with 3 (1.3%) reporting that they had a sexual partner who was 11 or more years older than themselves.

In the current study, more female participants (17; 15.3%) reported having a sexual partner who was 5 or more years older than themselves, in comparison with the sole male participant (1; 1.4%) who reported the same. The HSRC (2009:59) also found that the majority of participants who reported having a sexual partner who was 5 or more years older than themselves were women. Intergenerational sex or ‘age mixing’ is an important social determinant of HIV infection, as it exposes young people to infection from someone in a higher prevalence age group (HSRC, 2009:59).

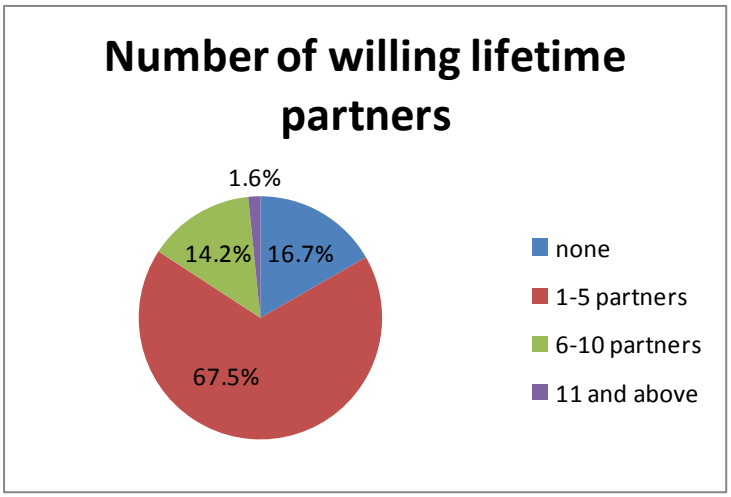

Figure 4.16: Number of willing lifetime partners

Figure 4.16 above illustrates that the majority of participants (162; 67.5%) reported having from 1 to 5 lifetime partners. A total of 34 (14.2%) participants reported having more than 5 lifetime partners. A total number of 4 (5.5%) participants, who were all men, reported having had 11 and more lifetime partners.

The data presented above related to lifetime sexual partners, and did not measure overlapping, or concurrent, sexual partners. However, the measure does provide an indication of high partner turnover, which is a factor contributing to concurrent sexual partnerships (HSRC, 2009:60). The predetermined range of '1 to 5' used in the questionnaire made it impossible to differentiate participants with only one lifetime sexual partner, which is an important indicator of sexual behaviours, from those with more than one lifetime sexual partner. It was noted, though, that more male participants (21; 29.2%) reported having more than 5 lifetime partners than did their female counterparts, who numbered 17 (10.1%). The finding is consistent with the findings of the HSRC (2009:60) that there were statistically significant gender differences between the percentages of male and female participants reporting more than one sexual partner in the past 12 months. Such partnerships are reported to be more common among men than they are among their female counterparts. A statistically significant difference was reported in the 2008 HSRC survey, in which five times more males (16.2%) reported having had more than one sexual partner in the past 12 months than did their female counterparts, at 3.3% (HSRC, 2009:64).

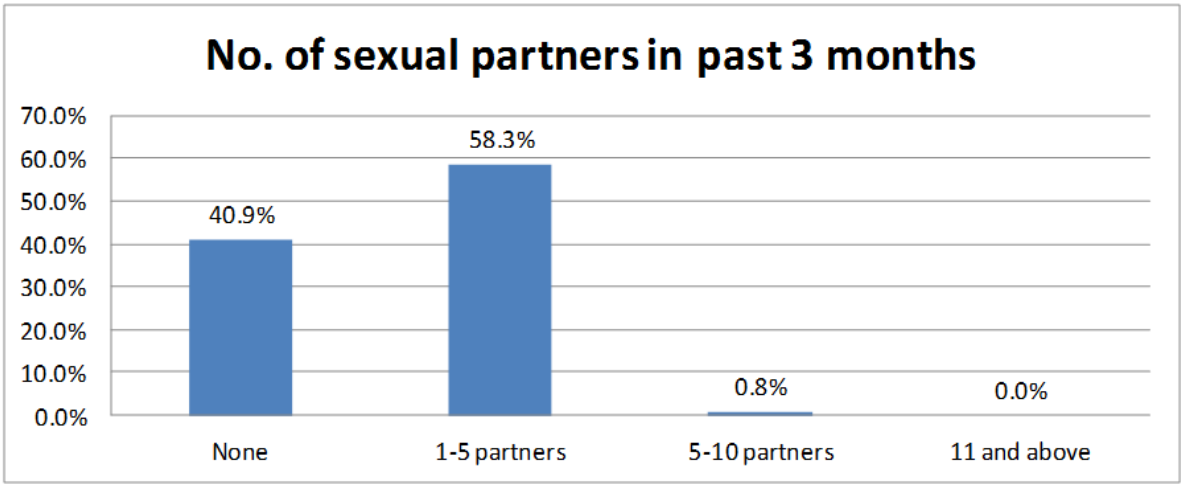

Figure 4.17: The participants' number of sexual partners in the last 3 months

Figure 4.17 above illustrates that 142 (59.1%) of the participants reported being sexually active in the last 3 months prior to the study. A total number of 140 (58.3%) of the participants reported that they had had 1 to 5 sexual partners in the last 3 months. Only a small percentage 2 (0.8%) reported having had more than 5 sexual partners during the same time period. A total number of 98 (40.9%) of the participants reported that they had not had sexual partners in the last 3 months.

The reported level of sexual activity among first-year university students in the last 3 months was less than that which was reported in the 2009 HEAIDS study. The HEAIDS study was conducted on students of all levels of study. In the study, a total of 83% of African male participants and 89% of African female participants were reported to have been sexually active in the past year (HEAIDS, 2010:32).

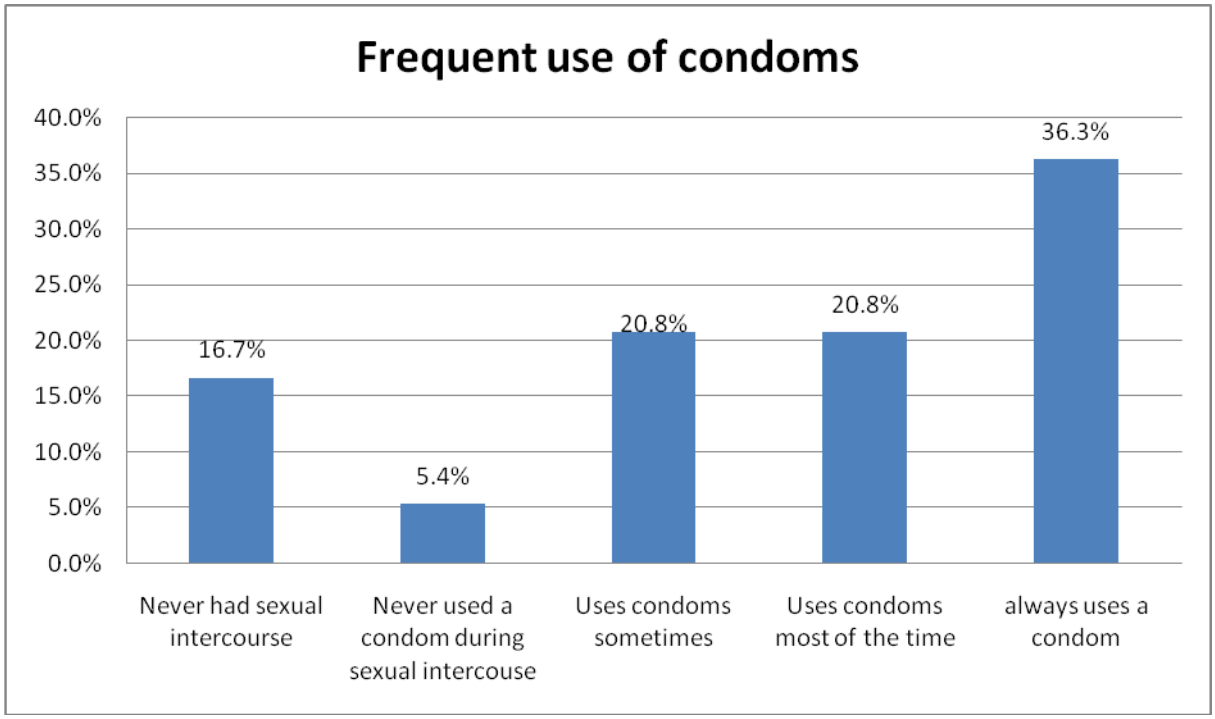

Figure 4.18: Participants' frequency of condom use

Figure 4.18 above illustrates that 40 (16.7%) of the participants reported that they had never had sexual intercourse. Of the 40 participants, 11 (15.3%) were men and 29 (17.3%) were women. A total number of 13 (5.4%) participants (3 (4.2%) were men and 10 (5.6%) were women) reported that they had never before used a condom during intercourse. About 100 (41.6%) of the participants reported that they used condoms inconsistently. This is comprised of 50 (20.8%) participants reported using condoms sometimes and 50 (20.8%) participants reported using condoms most of the times. About 87 (36.3%) of the participants reported always using a condom during intercourse. Of all the participants, 187 (77.9%) reported using condoms, albeit inconsistently. No significant gender differences were noted in condom use pattern.

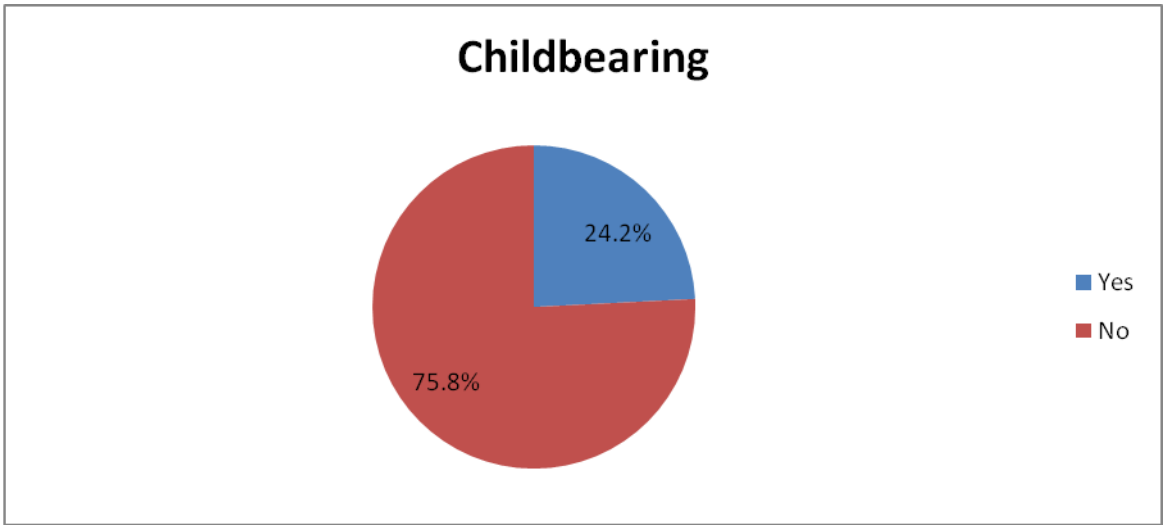

Figure 4.19: The rate of childbearing among participants

Figure 4.19 above illustrates that 58 (24.2%) of the participants reported that they had children of their own. Of the 58 participants, 18 (25%) were men and 40 (23.8%) were women. The percentage is lower than that which was reported in the national survey. In a study conducted among young people in South Africa, it was reported that, among sexually experienced females, 33% of 15- to 19-year-olds and 59% of 20- to 24-year-old women reported that they had been pregnant (Pettifor *et al.*, 2005:1530).

4.2.3 Psychometric properties

4.2.3.1 Descriptive statistics – frequency distribution

Descriptive statistics in the form of frequency distributions for the four instruments used in the study are explained below.

4.2.3.1.1 Attitudes towards sexual behaviour instrument (ATT)

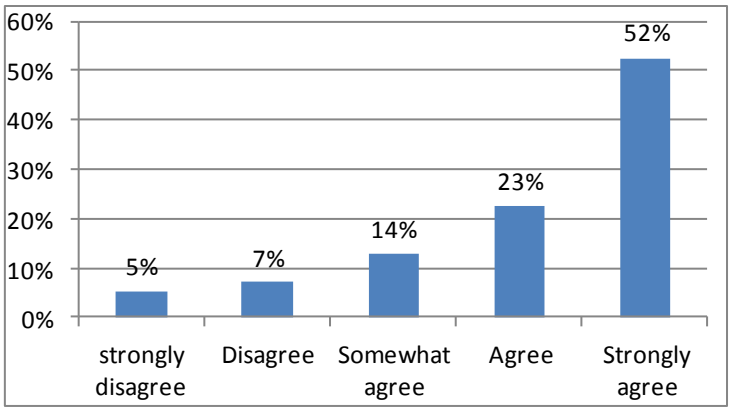

Figure 4.20: The frequency of responses for the ATT instrument

Figure 4.20 above illustrates the summary statistics for the 10 items comprising the scale and the responses from the 240 participants. The summated scores added up to 2 400 and were then calculated as percentages. This figure illustrates that rating 1 had a total sum of 5% of the responses and rating 2 had a total sum of 7% of responses. These two ratings indicated unfavourable attitudes. Rating 3, which is a neutral attitude, had a total sum of 13% of responses. Rating 4 had a total sum of 23% of responses and rating 5 had a total sum of 52% of responses. These last two ratings indicated favourable attitudes. Overall, the participants mostly had favourable attitudes towards safer sexual behaviours.

4.2.3.1.2 Perceived social norms (PSN) instrument

To obtain a general measure that predicts subjective norms, each normative belief strength about an important other was multiplied by the motivation to comply with that important other, with the products being summed up across all important others (Francis *et al.*, 2004:20).

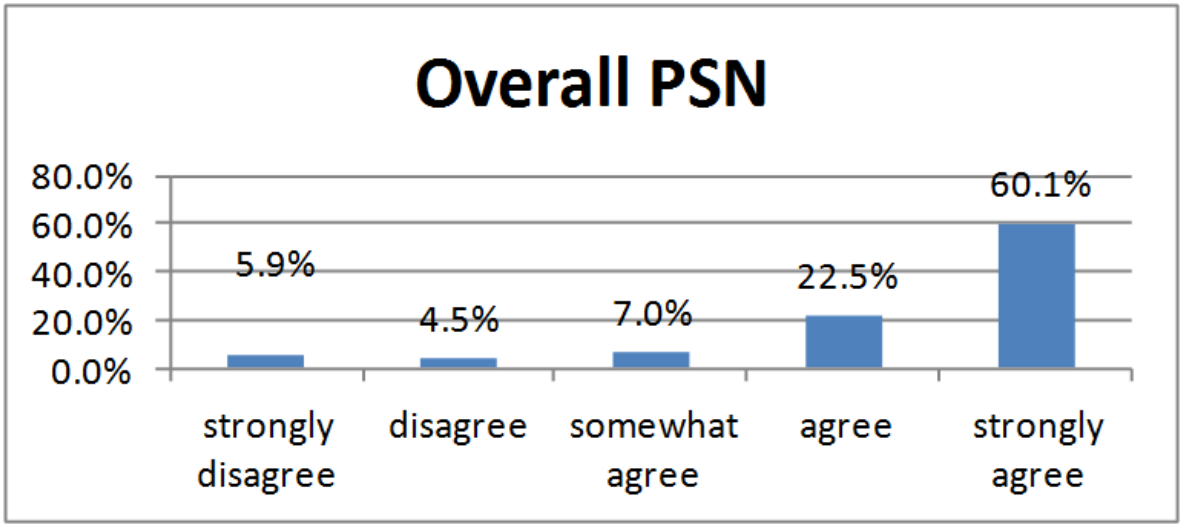

Figure 4.21: Frequencies of responses for perceived social norms (PSN)

Figure 4.21 above illustrates that, for the overall PSN score, rating 1 had a total sum of 91 294, accounting for 5.9% of the total number of responses. Rating 2 had a sum total of 69 194 (4.5% of the total number of responses). Rating 3 had a sum of 105 948 (7.0% of the total number of responses). Rating 4 had a sum total of 344 762 (22.5% of the total number of responses), and rating 5 had a sum total of 921 647 (60.1% of the total number of responses). The findings indicate that, overall, the participants perceived social pressure to practise safer

sexual behaviours.

4.2.3.1.3 Perceived behavioural control instrument (PBC)

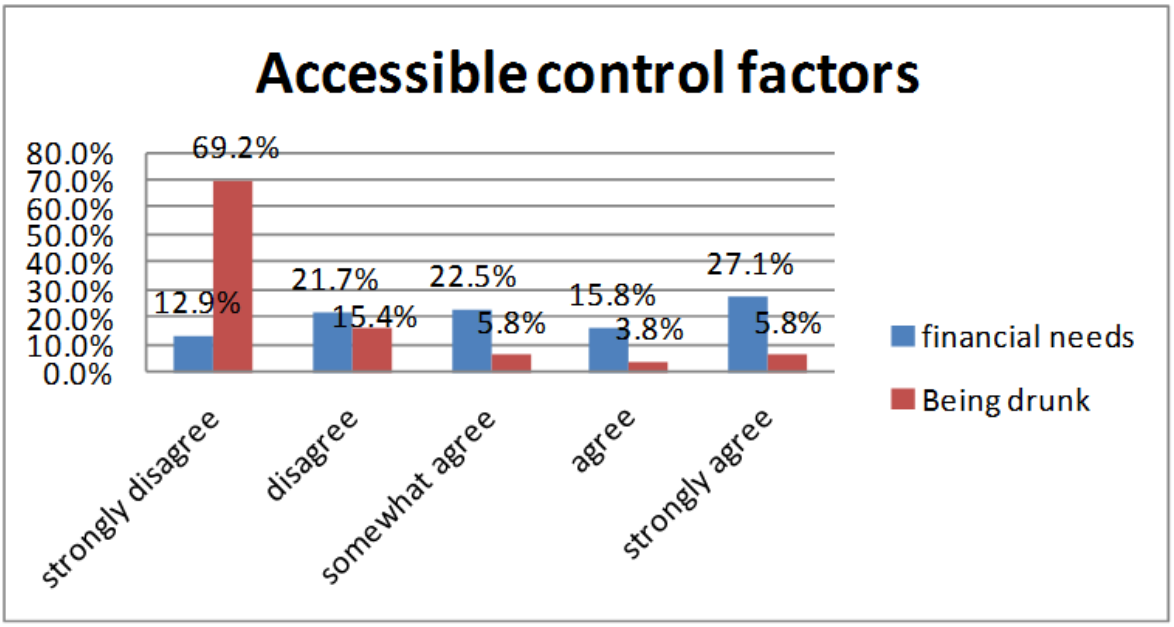

Figure 4.22: Frequencies of responses to accessible control factors

Figure 4.22 above illustrates that a total number of 83 (34.6%) of the participants disagreed with the statement that they expected to have more financial needs in the next forthcoming month, by indicating score 1 or 2. This is comprised of 31(12.9%) participants for score 1 and 52 (21.7%) participants for score 2. A total number of 54 (22.5%) participants indicated that they were unsure about their answer, and indicated score 3. A total number of 103 (42.9%) participants agreed with the statement that they expected to have more financial needs in the forthcoming month, by indicating score 4 or 5. This is comprised of 38 (15.8%) participants for score 4 and 65 (27.1%) participants for score 5.

For the accessible control factor 'being drunk', most participants 203 (84.6%) disagreed with the statement that they expected to be drunk in the forthcoming month, by indicating score 1 or 2. This is comprised of 166 (69.2%) participants for score 1 and 37 (15.4%) participants for score 2. A total number of 14 (5.8%) participants were not sure about their answer. Only 23 (9.6%) of the participants agreed that they expected to be drunk in the forthcoming month, by indicating score 4 or 5. This is comprised of 9 (3.8%) participants for score 4 and 14

(5.8%) for score 5.

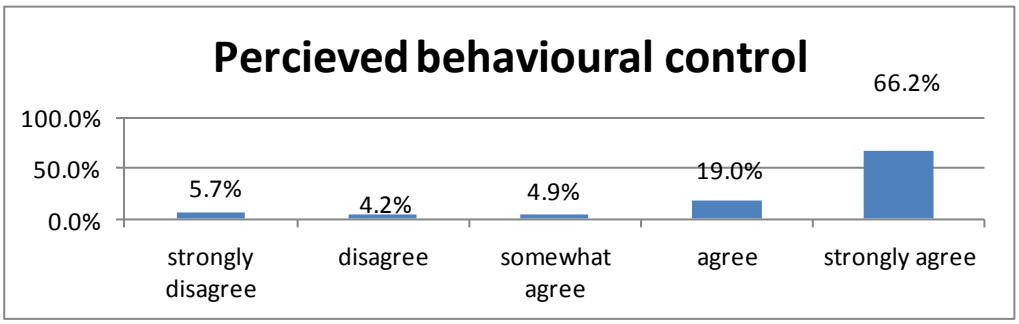

Figure 4.23: Frequencies of responses to the perceived behavioural control

Figure 4.23 above illustrates that most participants indicated that they had confidence in their abilities to perform safer sex. The frequencies for rating 4 (agree) and 5 (strongly agree) summed up to 701 590 (85.2% of the total number of responses), comprising 544 939 (66.2%) for rating 5 and 156 651 (19%) for rating 4. Rating 3 (somewhat agree) summed up to 40 587 (4.9% of the responses). The frequencies for rating 1 (strongly disagree) and 2 (disagree) summed up to 81 042 (9.9% of all responses), comprising 47 388 (5.7%) for rating1 and 33 654 (4.2%) for rating 2.

4.2.3.1.4 Behavioural intentions (BI) instrument

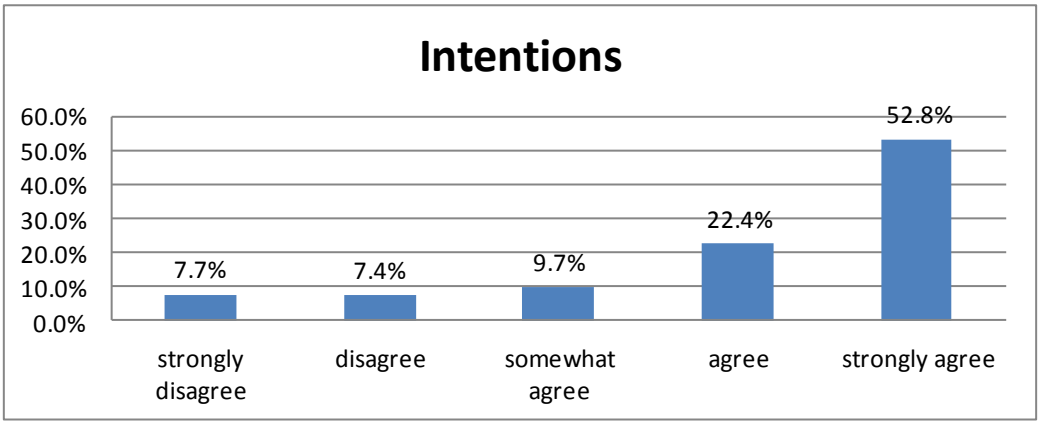

Figure 4.24: Frequencies of responses for behavioural intentions instrument

To determine the behavioural intention score, the mean for the motivational factor and the willingness to try for each rating were calculated. Figure 4.23 above illustrates the mean scores obtained. For rating 1 (strongly disagree), the score for the motivational factor was 132 and 92 for the willingness to try. The mean score for rating 1 was 112 (7.7% of the total number of responses). For rating 2 (disagree), the score for the motivational factor was 129

and 87 for the willingness to try. The mean score for rating 2 was 108 (7.4% of the total number of responses). For rating 3 (somewhat agree), the score for the motivational factor was 143 and 137 for the willingness to try. The mean score for rating 3 was 140 (9.7% of the total number of responses). For rating 4 (agree), the score for the motivational factor was 314 and 336 for the willingness to try. The mean score for rating 4 was 325 (22.4% of the total number of responses). For rating 5 (strongly agree), the score for the motivational factor was 743 and 787 for the willingness to try. The mean score for rating 5 was 765 (52.8% of the total number of responses). This illustrates that the great majority of participants had positive intentions to practise safer sex.

4.2.3.2 Multiple regression analysis

Multiple regression analysis was used to test whether reported sexual behaviours significantly predicted participants' ratings of ATT, PSN, PBC and BI scales. The following five predictor variables were used for sexual behaviours: 'age at first willing sexual intercourse'; 'age difference with sexual partner'; 'number of willing lifetime sexual partners'; 'number of sexual partners in the last 3 months'; and 'frequency of condom use'. For the purpose of this study, the statistical level of significance of $p \leq 0.05$ is used as the acceptable level. The actual p value will be reported for those variables that are found to be statistically significant.

4.2.3.2.1 Predicting ratings for the ATT instrument with sexual behaviours

Using the SPSS, the significant model shown in Table 4.1 below emerged.

Table 4.1: The proportion of the variance (R^2) accounted for by the model, the significance of the model (F) and the significance of the predictor variables (ρ) for the ATT instrument.

Statistic	Value
Adjusted R^2	0.00304771105
F(5,195)	1.12228112
ρ	0.349844545

No significant predictor variables were found to be predictive of attitudes.

4.2.3.2.2 Predicting rating of PSN instrument with sexual behaviours

Using the SPSS, the significant model shown in Table 4.2 below emerged.

Table 4.2: The proportion of the variance (R^2), accounted for by the model, the significance of the model (F), and the significance of the predictor variable (ρ) for the PSN instrument.

Statistic	Value
Adjusted R^2	0.064473035
F(5,195)	3.75665106
ρ	0.00286081107

The significant predictor variables are shown in Table 4.3 below.

Table 4.3: Significant predictor variables that were predictive of the PSN scale rating

Predictor variable	N	Beta value	ρ value
Partner age Difference	201	0.059	0.040
Number of partners in 3 months	201	0.238	0.008
Condom use	201	0.095	0.014

All the above predictor variables were statistically significant. No significance was found with the predictor variable 'age at first willing intercourse' and 'willing lifetime partners'.

4.2.3.2.3 Predicting the rating of the PBC instrument with sexual behaviours

Using the SPSS, the significant model shown in Table 4.4 below emerged.

Table 4.4: The proportion of the variance accounted for by the model, the significance of the model and the significance of the predictor variables for the PBC instrument.

Statistic	Value
Adjusted R^2	-0.0172777196
F(5,195)	0.320629194
P	0.900179684

No significant predictor variables were found to be predictive of perceived behavioural

control.

4.2.3.2.4 Predicting BI with sexual behaviours

Using the SPSS, the significant model shown in Table 4.5 below emerged.

Table 4.5: The proportion of the variance (R^2) accounted for by the model, the significance of the model (F) and the significance of the predictor variables (ρ) for BI instrument.

Statistic	Value
Adjusted R^2	0.0773119874
F(5,195)	4.35159821
P	0.000889700721

Only one predictor variable was found to be significantly predictive of the behavioural intentions and values that are shown in Table 4.6 below.

Table 4.6: Significant predictor variables that were predictive of the BI scale rating

Predictor variable	N	Beta value	ρ value
Age at first willing intercourse	201	0.086	0.001

The above predictor variable was statistically significant. No significance was found with the predictor variable 'partner age difference', 'number of willing lifetime partners', 'number of partners in last 3 months', and 'condom use'.

4.3 Summary

This chapter presented the results of this study in the form of descriptive statistics and the psychometric properties of instruments, which included frequencies and multiple regression analysis. Frequency distributions of the characteristics and background of the participants were interpreted. Frequency distributions of the four instruments used in this study were interpreted and were found to be mostly positive. Results of multiple regression analysis were also interpreted and predictive sexual behaviours were identified. These results are discussed in the next chapter, together with the limitations of the study and recommendations for further studies.

CHAPTER FIVE: DISCUSSION, CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

5.1 Introduction

The focus of this chapter is on discussing the findings of the study, in an effort to answer the research question, and in the light of the relevant literature. The previous chapter focused on interpreting the findings of the study.

5.2 Discussion

The format of this chapter is guided by the constructs of the TPB, which formed the framework of the study. The findings on the attitudes of the participants towards engaging in sexual activities are discussed first, followed by a discussion of the findings on the perceived social norms of participants regarding engaging in sexual activities, of the findings on perceived behavioural control, and lastly, of the findings of the participants' reported intentions to engage in sexual activities. Findings on characteristics and background of the participants are also discussed as supportive argument where they are relevant.

5.2.1 Discussion on attitudes towards engaging in sexual behaviours

Crockett *et al.* (2003:380) asserted that more permissive attitudes towards the issue of sexual relations predict the levels of coitus and the initiation of sexual relations. The above was found to be true in this study.

5.2.1.1 Attitudes towards sexual activity

In this study, the findings revealed a high level of, and permissiveness regarding, premarital sexual activity among first-year university students who participated in the study. A total of 96.6% of the participants reported that they were single, with a total of 85.3% of the participants reporting having initiated sex. The number concerned is large, and it is similar to the number obtained in other studies. The studies that were conducted among university students revealed that 68% to 95% of the participants reported that they had initiated sex (Oshi *et al.*, 2007:4; HEAIDS, 2010:33; Mpofu, 2012:63). The HEAIDS (2010:32) study reported that African students were more likely to have had sexual relations than had the other race groups, with the percentage of African male students being 82% vs. the 73% of the overall average and 76% vs. 70% being the overall average for African female students. Such

percentages could explain the high 85.3% found in the current study.

Certain studies further revealed that a large number of students were likely to have had sexual relations for the first time during the period that they were at university (HEAIDS, 2010:77; Mpofu, 2012:63; Mutinta & Govender, 2012:23). When assessing age at first sexual intercourse, the current study revealed that 73.3% of the participants who had initiated sex did so at the age of 16 years or older, which is around the age at which the majority of students enter university.

Several explanations have been cited in the literature for such occurrences. They include lack of experience to make good and risk-aware decisions when it comes to sexual liaisons; the lack of skills to manage the amount of freedom that they had experienced away from parental supervision; and the relative naiveté and inexperience of first-year university students that allow predation by older students and non-campus men. The enormous pressure exerted upon first-year students to have sexual relations to feel part of the institution, the pressure to have sexual relations in a relationship, and the risk posed to the continuity of the relationship in the absence of sexual relations have all been found to be contributory factors to the problem (HEAIDS, 2010:77-78; Mutinta & Govender, 2012:21-26).

That 14.2% of the participants in the study reported having never had sexual relations was notable in a context in which most students declared themselves to be openly sexually active, in which they perceive such relations as ‘cool’, and in which those who abstained from sex were unpopular, as they were considered ‘backward’ (HEAIDS, 2010:79; Mutinta & Govender, 2012:26). The primary motivation for sexual abstinence in the campus communities was noted as being related to religious beliefs. Students who are not able to obtain new sexual partners at the beginning of the academic year were branded as ‘religious fanatics’ (HEAIDS, 2010:79; Mutinta & Govender, 2012:26). It would be more comforting, though, to know that, when students engaged in sexual relations, at least they did so with only one person and that they used protection.

5.2.1.2 Attitudes towards multiple partnering and concurrency

On exploring the pattern of sexual relationships in this study, 31.7% of the participants reported that they were not dating at the time of the research study. A total of 51.2% of the participants reported that they were in monogamous relationships (with 33.7% dating only

one person, 14.2% being in long-term faithful relationships, 2.5% being married, and 0.8% being engaged). These findings reveal that most students were not promiscuous (with 31.7% not dating and 51.2% being in monogamous relationships). However, the making of such a finding does not reduce the importance of informing students about the potential risks posed by campus life, though.

A total of 17.1% of the participants reported that they were in polygamous relationships. Of this total 4.2% of participants reported dating many different people. Another 6.7% of participants reported dating a couple of people and 6.7% of participants being in long-term unfaithful relationships. Though it was not specified whether the relationships in question were sexual or not, it can be speculated that they might have been sexual in nature, given that the findings from other studies showed that students feel pressured to have sex in relationships to 'fit in' and to keep relationships going. It can, therefore, be safely speculated that, with the 17.1% of the participants reporting having polygamous relationships, multiple sexual partnering was possible.

This study further requested the participants to self-report on the number of lifetime sexual partners that they had, as well as the number of sexual partners that they had in the three months prior to the study. The findings revealed that 67.5% of the participants reported that they had 1 to 5 lifetime partners. A total of 58.1% participants reported that they had from 1 to 5 sexual partners during the 3 months prior to the study. The predetermined range of '1 to 5' used in the questionnaire made it impossible to differentiate participants with only one sexual partner (lifetime and over a period of 3 months), which was an important indicator of sexual behaviours, from those with more than one but less than five sexual partners. The findings on having had sexual partners over a period of 3 months, though, did shed some light on the regularity of sexual activity within the sample, thereby excluding secondary abstinence.

The findings further revealed that 14.1% of the participants had had more than 5 lifetime partners, and that only 0.8% had had more than 5 partners over the 3 months prior to the study. The 14.1% with more than 5 lifetime partners comprised 23.6% of the total number of men and 10.1% of the total number of women, showing a substantial gender difference. A further 5.5% of the total number of men reported having had more than 10 lifetime sexual partners, with no women reporting having had more than 10 sexual partners.

The above finding is consistent with the findings from the HSRC (2009:60) that there were statistically significant gender differences between percentages of male and female participants reporting having had more than one sexual partner in the past 12 months. Such partnerships are reported to be more common among men than among their female counterparts. A statistically significant difference was reported in the 2008 HSRC survey. Five times more men (16.2%) reported having had more than one sexual partner in the past 12 months than did their female counterparts, at 3.3% (HSRC, 2009:64).

More studies have reported high prevalence of multiple and concurrent partnerships among university students, with more so among men than among women (Oshi *et al.*, 2007:4; HEAIDS, 2010:32-33; Mutinta & Govender, 2012:22). The identity of male students is said to be defined through their sexual ability and accomplishment (Mutinta & Govender, 2012:23). Many motivations have been given for having sexual relations with partners running concurrent to an existing sexual relationship, including for reasons of pleasure, curiosity, amusement and exploration, revenge against unfaithfulness, to gain sexual experience, and to alleviate boredom (Parker *et al.*, 2007:22; HEAIDS, 2010:80).

Other explanations are usually given, such as being in a relationship that tolerates a concurrent partnership. Such relationships are sustained on the basis of understanding by the 'non-main' partner that their status is that of a casual or less significant sex partner. This status is readily accepted, especially if it is agreed to, or known to exist, at the outset of a sexual relationship (Parker *et al.*, 2007:22; HEAIDS, 2010:80). Mutinta and Govender (2012:24) reported that students were under the impression that there were more female than male students on campuses, and that, therefore, male students were more likely to have more than one sexual partner. Female students are, therefore, influenced to tolerate multiple and concurrent partnerships, because it is difficult to find men who want monogamous relationships.

The other explanation given for concurrency, in other studies, is the fact that relationships between the unmarried parents of a child are usually sustained for longer than would otherwise occur. The bond remaining between the parents extends to maintaining an ongoing sexual relationship that potentially overlaps with other newly developed relationships. Such relationships are bound by secrecy and by a sense of 'ownership' (Parker *et al.*, 2007:26;

Jewkes & Christofides, 2008:6). In this study, a total of 24.2% of the participants reported that they were parents; therefore they would have been affected by such an explanation. In the face of the above arguments for multiple and concurrent partnerships, it would be more reassuring to know that such encounters are at least protected. Condom use will be explored below.

5.2.1.3 Attitudes towards condom use

Participants in the current study were requested to self-report on their frequency of condom use. Of the 200 participants who reported being sexually active, 87 (43.5%) reported consistent condom use. A total of 100 (50%) participants reported inconsistent condom use. The result is a total of 93.5% of the participants who reported some form of condom use, although consistency was reported to remain a challenge. A small number of 13 (6.5%) participants reported having never before used a condom during sexual intercourse. No significant gender differences were noted in condom use pattern. The problem of truthfulness, or lack thereof, in self-reporting was evident here. When asked about their age at first intercourse, 14.2% of the participants reported that they had never before had sex, but when the participants were asked about condom use, the number of those who stated that they had never before had sex rose to 16.7%. The total of 93.5% of the participants reporting condom use was high and appreciated, despite consistency remaining a challenge.

The high levels of reported condom use are consistent with the findings from the HSRC (2008) study. In the study mentioned, there was a dramatic increase in the number of participants reporting using condoms during their last sexual encounter. The overall proportion of people who reported using a condom at last sexual encounter doubled from 27.3% in 2002 to 62.4% in 2008. Both boys and men and girls and women aged 15 to 24 years old reported the highest rates of condom use at last sexual encounter, ranging from 57.1% in 2002 to 87.4% in 2008 for the boys and men and from 46.1% in 2002 to 73.1% in 2008 for the girls and women (HSRC, 2009:45). HEAIDS (2010:32-33) reported 64% condom use for both male and female African students.

In the HSRC study, as well as in the current study, the greatest improvement was seen among the youth and even among the women who had traditionally had low rates of reported condom use. Apart from the highly successful condom promotion and distribution system developed by the South African government, the improvement, seen among the female

participants in condom use at last sexual encounter, might also point to the fact that women are becoming more empowered to negotiate condom use than they were before. One possible explanation of the findings is that not only might there have been a shift in the levels of condom negotiating skills, but there might also have been increased openness among the youth to discuss having sexual relations and using condoms (HSRC, 2009:66).

Another promising discovery was the decline in the proportion of participants reporting that they had never used a condom. Pettifor *et al.* (2005:5) revealed that 31% of the participants in their study had never used a condom, compared to the 6.5% who reported such that were found in the current study. In the light of such results, efforts to promote condom use seem to have been paying off.

Condom use interventions, nevertheless, need to emphasise the importance of correctness and consistency in sexual behaviour, and the consequences thereof. The above is necessarily so, because the researcher, as a healthcare provider, has experienced students presenting at the clinic for emergency contraception or for treatment for an STI. The students concerned then tend to claim that they have used a condom, but that it ruptured, or they cannot explain how they ended up with an STI, indicating that there was a possibility of either inconsistency or incorrectness, or both. The following section discusses the psychometric results of the ATT instrument that was used to assess the attitudes of the participants in the study.

5.2.1.4 Psychometric properties of the ATT instrument

The ATT instrument was found to have a low reliability (10 items, alpha = .3088), which negatively affected the reliability of the results. The weakness in reliability could be due to the previously mentioned omission committed during the construction of the instrument. According to Ajzen (2002:2), to measure an attitude towards behaviour, the belief strength and the outcome evaluation should be measured for each item on the instrument. In the current study, the outcome evaluation was erroneously not measured for the instrument. Therefore, the findings from the particular instrument have a low reliability, so that the findings concerned may be ignored.

When frequencies of responses were measured, it was observed that almost three-quarters (74.4%) of the participants had positive attitudes towards sexual behaviours, including scores for both rating 4 (agree) and 5 (strongly agree). A total of 12.8% of the participants were

uncertain (with a rating of 3, somewhat agree) and only 12.4% of the participants reported having negative attitudes (with a rating of 1, strongly disagree, and 2, disagree). The results of the multiple regression analysis indicated that there were no significant predictor variables found to be predictive of the participants' ratings of attitude.

The next section will discuss the findings of perceived social norms, which are another construct of the TPB.

5.2.2 Discussions of perceived social norms regarding engaging in sexual behaviours

The social context in which young people grow up and become adults influences their choices and their reproductive health behaviours. Consequently, in order to develop better educational interventions to change the sexual behaviours of young people, greater emphasis needs to be given to the way in which young people understand their social and physical worlds, and the social and cultural processes that help them make sense of their sexual desires, feelings and interests (WHO, 2006:16).

This section will start by discussing sources of information on sexuality, as reported by the participants in the study, and the impact that the literature cites they might have in influencing/shaping the sexual behaviours of participants. The elements of social context that were explored in the study were the parents, the religious institution associated with the participants, their peers, the education institution attended by them, and the media to which they were exposed. The influences exerted by each element are discussed below.

5.2.2.1 Influence of parents

When analysing the sources of information on sexuality in the current study, only 23.3% of all participants comprising of 30.4% of the female participants and only 6.9% of the male participants reported having received information on sexuality from their parents. Further, on analysing the background characteristics of participants in the study, fewer than half (46%) of the participants reported having been raised by both their parents and only an average of 26.5% of the participants reported that their parents had a tertiary-level education. All such factors point to the potential lack of positive influence on the young people's abilities to make informed choices regarding their sexual behaviours.

The above findings are of concern, as the literature has pointed out how home type, perceived

family support, family cohesiveness, parental monitoring, and 'very importantly' parent–adolescent communication about sex have each been shown to help prevent adolescents from engaging in risky sexual behaviour (DiClemente *et al.*, 2008:599; Fako, 2010:122; Olubunmi, 2011:17; Wamoyi *et al.*, 2010:12). In another study, Hallman (2004:24) asserts that low levels of parental education and the lack of parental guidance and support could influence young people's sexual behaviours by reducing their access to information regarding safe sex practices, or by inhibiting their ability to put such knowledge into practice.

The evidence has shown that parents usually shy away from discussions of sexuality, because it is generally believed that such discussions will be likely to encourage adolescents to engage in the behaviour of which they have been told. Parents have also been reported as not being fully equipped to answer questions on sexual matters usefully, as they sometimes lack the appropriate knowledge of sexual and reproductive health issues (Wamoyi *et al.*, 2010:12). Such facts could be true for the participants in this study, considering the reported low levels of parents' education and the low percentage of parents reported as being sources of information on sexuality.

5.2.2.2 Influence of religion

The other source of information on sexuality that scored low in the current study was the religious institution. Only 10.8% of all participants comprising of 7.0% of the male participants and 12.5% of the female participants reported that they had received information on sexuality from the churches that they attended. The influence of religious institutions has also been cited in the literature as being of great importance in shaping young people's sexual behaviours. In the present study, though, almost all (97.1%) of the participants reported that they were raised as Christians, with only 47% reporting that they were actively attending church services currently.

The above is of great concern, as the literature asserts that more frequent religious service attendance, which leads to the creating of co-religionist networks, might be particularly important during college years, when the individuals have increased dating and sexual opportunities over what they had at home, yet little or no supervision. The co-religionist networks are likely to delay willing participation in intercourse, to promote having fewer partners, and to reduce the odds of 'hooking-up' while attending a tertiary-level education institution (Burdette *et al.*, 2009:545; Haglund & Fehring, 2009:12).

In addition to the importance of frequent religious service attendance, religious beliefs regarding sexuality are also important. As suggested by reference group theory, the extent to which religion influences the attitudes and behaviours of youth depends upon the specific doctrine of the church, referring to what youth are being taught about human sexuality, as well as how socially integrated youth are within their religious institutions (Thornton & Camburn, 1989, as cited in Haglund & Fehring, 2009:10). Farmer *et al.* (2008:12) assert that lack of religious belief may dispose women to engage in more unrestricted premarital intercourse behaviour, because they are less likely to model their sexual activity after the dictates of religious doctrines.

An article from *Xpress,* a religious magazine, asserted that resistance to providing information or to starting a debate about sexual issues in faith communities, often comes from people's unwillingness to question firmly held beliefs. As a result of the failure to question the beliefs concerned, most religious youth who are in sexual relationships participate in them secretly and are prepared to go a long way to avoid the consequences of having their relationship found out. Such fear could result in increased risk of HIV infections (when the participants in such a relationship fail to acquire condoms, for fear that they are seen to do so, and their relationship becomes known about in the congregation) and even in unsafe abortions (IPPF, 2009:5).

5.2.2.3 Peer influence

In the current study, peers were ranked at the top of the list as sources of information on sexuality at 61.7% of all participants comprising of 62.5% of the male participants and 61.3% of the female participants. This finding is disturbing, as the accuracy and morality of such information is questionable, considering that parents and religion had little to do with the information that the peers have. In contrast, discovering that peers play such a significant role as the source of information regarding sexuality, peer education programmes could serve as an important avenue that could be used to challenge negative social norms in this subpopulation. It is important to capitalise on the importance of peer groups and on the need to belong to, and to explore ways of subverting negative norms that arise from groups into positive norms that challenge the willingness to participate in high-risk sexual behaviour (DiClemente *et al.*, 2008:599).

5.2.2.4 Influence of education institutions

School was seen as the second-most common source of information on sexuality, with 55% of all participants asserting that it was the source. As much as the current outcomes-based curriculum makes provision for the learning area of Life Orientation (LO) (in which the topics of sexuality and HIV/AIDS form a part) to be taught up to Grade 9 to all learners, and the National Policy on HIV/AIDS is also very clear that a continuing Life Skills and HIV/AIDS education programme should be implemented in all schools (Asmal, 2001:22), the findings obtained suggest that the implementation of such teaching and of such a programme is not happening in all schools.

Many challenges that have been cited in the literature as facing the implementation of LO could be the cause of the failure to implement the above teaching and programme in some schools. The lack of appropriate teacher training, the low level of teacher experience, and the amount of unspecified time that is allocated to the teaching of LO in school timetables are some of the challenges cited. Teachers who lack training and skills lack motivation and confidence, and thus tend to have little influence on the learners' formation of values, resulting in them being unable to influence learner behaviour constructively (Rooth, 2005:235; Naidoo, 2006:137; Prinsloo, 2007:165). The quality and quantity of sexuality education received by the students therefore becomes questionable. It would be interesting to assess the extent of impact of LO guidance on those students who reported receiving information from their past school.

The next section discussed the results of perceived social norms instrument.

5.2.2.5 Psychometric properties of the PSN subscale

The PSN instrument was found to be highly reliable (36 items, alpha = .8928). When the normative beliefs of the participants were assessed, the findings indicated that 82.6% of the participants perceived that they experienced social pressure to perform safer sexual behaviours. When separating the accessible referent, friends scored the lowest (68.7%), compared to 91.4% for parents, and 83.6% for partners. The finding indicates that the participants perceived less social pressure to practise safer sex from their friends than from their partners and family.

The above is an important observation, as the literature asserts that if adolescents and young

adults perceive that their friends are having unprotected sex or engaging in risky sex, they might be more likely to adopt their friends' behaviours. Similarly, general perceptions of low levels of social support among their peers have also been associated with the likelihood of participating in risky sexual behaviour (DiClemente *et al.*, 2008:599).

The results of regression indicated that three predictors explained the variance found (R^2 = .644, F (5,195) = 3,756, ρ < .002). It was found that 'partner age difference' (beta =.059, ρ < .040), 'number of sexual partners in 3 months' (beta = .238, ρ < .008) and 'condom use' (beta = .095, ρ < .014) significantly predicted the ratings of perceived social norms. These are the three important variables at play at this stage of the participants' lives. No significance was found with predictor variables 'age at first willing intercourse' and 'number of willing lifetime partners'. This can be interpreted as meaning that the perceived social pressure did not influence the two variables concerned.

The PSN is generally found as a weak predictor of intentions and behaviour. This relates to the fact that norms are typically measured by a single item, despite the potentially low reliability of such a measure (Armitage & Conner, 2001:478). In this study, 20 items were used, and a high reliability of .8928 was obtained. Armitage and Conner (2001:484) discovered that multiple item measures of subjective norms and normative beliefs had significantly stronger correlations with intentions than did any other measure.

The subjective beliefs covered in this study offered useful insights into socially derived norms that influence sexual behaviours. Three key variables were identified that predicted the rating of PSN, namely the partner age difference, the number of sexual partners in the course of 3 months, and condom use. Despite the adolescents' and young adults' desire to discuss sexual issues with more experienced adults, adults (whether parents, church authorities or educators) were not available for such discussions, and the peers remained the major sources of information. Other studies revealed the centrality of adolescent sexual identities and their need to belong to a group (Selikow *et al.*, 2009:4; Mutinta & Govender, 2012:26). Due to these findings, it can be said that normative beliefs had a strong influence on the sexual behaviours of participants in this study.

5.2.3 Discussing perceived behavioural control (PBC)

Economic disadvantage and alcohol use are two accessible control factors that have been

explored in this study. The effect of economic disadvantage is discussed first, followed by the effect of alcohol use, below.

5.2.3.1 Effects of economic disadvantage on sexual behaviours

In the current study, 40.4% of the participants reported that their parents were unemployed and 32.9% reported that they did not know how much their parents earned. A total of 23.3% of the participants indicated that their parents earned less than R100 000 per annum. Only 3.4% of the participants reported that their parents earned more than R100 000 per annum. According to Minister Blade Ndzimande's address on SABC 2's Morning Live TV programme on 6 August 2012, students whose parents earn less than R122 000 per annum are regarded as poor students. This indicates that the majority of participants in the study were regarded as poor students.

When the participants in the study were asked whether they expected to have more financial needs in the forthcoming month, 65.4% agreed that they would, whereas 34.6% disagreed that they would. The finding was disturbing, as the literature has revealed that relative economic disadvantage significantly increases the likelihood of a variety of unsafe sexual behaviours and experiences. Low socio-economic status not only increases the odds of women exchanging sex for money or goods, but it also raises the chances of women experiencing coerced sex, and the odds of both men and women having multiple sexual partners (Hallman, 2004:23). Poorer students are more vulnerable to being enticed into sexual relationships for material gain. Hunger, poverty and desperation drive some young women into engaging in transactional sex (HEAIDS, 2010:81; Mutinta & Govender, 2012:26).

Poor students tend to start university with little financial support for food and fees; they exchange sex for necessary commodities, like free transport to campus, access to computers, food and housing. Such lack of disposable income encourages participation in risky behaviour, because the partner who is 'provided for' has little power to negotiate that sexual relations should be safe in either a casual or a committed relationship (HEAIDS, 2010:81; Mutinta & Govender, 2012:17). It has been discovered, though, that it is not only vulnerability that leads to such positioning, but also social aspirations, the desire for recreation and other non-forced choices can lead students to have sex for gain (HEAIDS, 2010:81).

Low socio-economic status has been found to have more consistently negative effects on female than on male sexual behaviours (Hallman, 2004:23). Among female students, social status is acquired through their access to the 'latest' items, like phones, clothes, and the ability to go on outings, and to eat nice food. Thus, in wanting to acquire financial support for their 'luxuries', students sometimes end up engaging in sexually risky behaviour (HEAIDS, 2010:81; Mutinta & Govender, 2012:26).

In their quest for this kind of financial support, such students are reported as tending to engage in intergenerational sexual relationships mostly with non-campus partners (Oshi *et al.*, 2007:7; HEAIDS, 2010:83). In this study, 9.6% of the female participants reported having sexual partners who were more than 5 years older than them, with 1.3% being more than 10 years older. Only 1.4% of the male participants reported having a sexual partner more than 10 years older than them.

The above percentages are much less than those that were found in the HEAIDS (2010:32) study that reported that 7% of African male students and 13% of African female students had partners who were more than a decade than them. The percentages found in the current study are also much less than those that were found in the HSRC (2009:41) study, which reported that 14.5% of teenagers aged 15 to 19 years, reported having partners who were five or more years older than themselves. This could mean that the population in question was not greatly affected by the phenomenon of intergenerational sex.

The majority of respondents, in the HSRC study, who reported having partners five or more years older than themselves were young women (at 27.6% of the total population). The gender difference was also observed in the current study as well. Such relationships, in some cases, are sanctioned by the families who benefit both directly and indirectly in financial terms from the relationships (HSRC, unpublished data as cited by HSRC, 2009:64).

Young women should be discouraged from having sexual relations with men who are five or more years their senior or older, as doing so puts the former at even higher risk of HIV infection. Another factor that has been cited as contributing to sexually risky behaviours is alcohol consumption, which will be discussed in the following section.

5.2.3.2 Effects of alcohol use on sexual behaviours

Several studies indicate that alcohol use, sexual behaviour and the failure to use a condom are commonplace among college students (Cooper, 2002:105; HEAIDS, 2010:85). Binge drinking was reported to be the major source of recreation on many campuses over weekends, together with sexual activity (HEAIDS, 2010:85). In this study, 32.1% of the participants reported that they drank alcohol. On further questioning regarding whether the participants expected to become drunk in the forthcoming month, only 15.4% of the participants reported that they expected to, whereas 9.6% were positive in their expectation regarding drink, and 5.8% stated that they were unsure. This adds up to a total of 30.8% participants who expected to be drunk that month. The percentage is less but closer to that in the HEAIDS (2010:39) findings, which reported that 35% of the participants reported having been drunk during the past month.

Mabille (2009:19) reported that, from those students who frequented alcohol outlets, 40% of the female and 30% of the male participants reported that they had had sex under the influence of alcohol. Of those participants, a total of 60% of the women reported that they had received free liquor in return for their willingness to participate in sexual relations, and 20% of the men reported having been paid for their willingness to engage in such activity. The finding indicated the negative effect of alcohol on sexual behaviours.

Although the current study did not explore the connection between alcohol use and sexual behaviours, other studies have shown some relationship between the two. Studies reported that the likelihood that an individual had ever drunk alcohol before predicted the likelihood that he/she had ever previously had sexual relations (Cooper, 2002:111; Mabille, 2009:26). The results further suggest that the level of alcohol consumption also predicted the level of sexual involvement, and that drinking in a potentially sexual situation was associated with an increased probability of having had sexual intercourse on that occasion (Cooper, 2002:111; Mabille, 2009:24). According to these studies, drinking prior to intercourse is associated with risky partner choice, as well as with decreased risk discussion on the occasion in question (Cooper, 2002:111; Mabille, 2009:26).

The reported levels of alcohol use among university students, though not overly high, in this study are worrisome. Because of the limited drinking and sexual experience that is typical of most students prior to college, and the unprecedented freedom to experiment that tertiary-

level education institution environments typically provide, students – more so than most other groups of people – might combine drinking and sexual relations in ways that jeopardise their mental and physical well-being (Cooper, 2002:115). Initiatives to guide students, especially during their first year at university, could save them from placing themselves in such positions of high risk.

5.2.3.3 Psychometric properties of the PBC instrument

The PBC instrument was also found to be highly reliable (20 items, alpha = .8112). In assessing the control beliefs of the participants, overall, the findings indicate that the majority (85.2%) of participants confidently perceived that they had the ability to practise safer sex. When multiple regression analysis was done to identify a predictor variable more influential in predicting participants' ratings, the results indicated that no predictors explained the variance ($R^2 = .017$, $F(5,195) = 0.320$, $\rho < .9$).

Such findings revealed PBC as being weakly influential of sexual behaviours in the current study. Results in this study demonstrated that participants perceived high behavioural control. This perception of their ability might be unrealistic, though. Ajzen (1991:185) asserts that the PBC might not be particularly realistic when a person has relatively little information about behaviour, when requirements or available resources have changed, or when new and unfamiliar elements have entered into the situation. Under such conditions, a measure of perceived behavioural control may add little to the accuracy of behavioural prediction. This might be true in the present study, as many aspects of the situation might have changed as the participants entered into campus life.

5.2.4 Discussing behavioural intentions (BIs)

The BI instrument was also found to be highly reliable (12 items, alpha = .8383). In assessing the behavioural intentions of the participants, the findings indicate that the majority (75.2%) of participants had good intentions of practising safer sex. When multiple regression analysis was done to identify the predictor variable that was more influential in predicting the participants' ratings, the results indicated that one predictor explained the variance found ($R^2 = .077$, $F(5,195) = 4.351$, $\rho < .0008$). It was found that only 'age at first willing intercourse' (beta =.086, $\rho < .001$) significantly predicted the ratings of behavioural intentions. No significance was found with predictor variables 'number of willing lifetime

partners', 'partner age difference' , 'number of sexual partners in 3 months' and 'condom use'.

5.3 Limitations of the study

Since participants were selected from only one campus the findings cannot be generalised to the entire population of first-year university students. The lack of representativeness in gender (with 70% being of the female gender, and 30% being of the male gender in the sample) also contributed to the limited generalization. However, the results generated from the study might, nevertheless, give significant insight into the issues that need to be considered when developing and implementing sexual behaviour change programmes and interventions.

The fact that the information was obtained by means of self-reporting might have had a negative impact on the quality of the results. The quality of the study depends on the accuracy and truthfulness of the participants involved. It is possible that some of the participants might have distorted or concealed information or that they simply might have lacked knowledge about the topic when they answered certain questions (Gravetter & Forzano, 2006:S43). The participants were urged, at the beginning of each section on the questionnaire, to answer the questions asked as accurately and truthfully as they were able, and that there were no wrong or right responses. The hope is that they were truthful in their responses to the questionnaire.

Considering the nature of the sample (first-year university students) and the subject matter (sexual behaviours) the possibility of receiving dishonest responses remains. The students might have been reluctant to divulge their intimate sexual information to a stranger, and might have been tempted to give false or socially desirable responses. It is assumed, once again, in good faith that the strict anonymity and confidentiality measures exercised in this study encouraged them to respond honestly, however.

The reliability analysis of the ATT instrument that measured the attitudes of participants revealed a low level of reliability. Making assumptions based on findings particularly from this instrument is, therefore, not advisable.

5.4 Conclusions

The current study aimed to answer the research question: 'What factors influence the sexual behaviours of first years on a university campus?' The study used the TPB as its framework. From a general view, the application of the TPB to a particular area of interest provides a host of information that is extremely useful in any attempt to understand these behaviours, or in any attempt to implement interventions that might be effective in changing them (Van Ryn & Vinokur, 1990, as cited in Ajzen, 1991:206).

In terms of attitudes towards sexual activity, it has been revealed that students are mostly sexually active, they engage in multiple concurrent partnerships, and, as much as most of them use condoms, they mostly do so inconsistently. More rigorous attempts at encouraging consistency in condom use would, therefore, be likely to prove beneficial in the setting described. It has also been revealed in the current study that, as much as first-year students evaluated safe sex practices positively, doing so does not necessarily influence their behaviours. In this study, perceived social pressure appeared to play an upper hand.

In the current study, normative beliefs (perceived social norms) were found to have the strongest influence of all beliefs. Information gaps created by the lack of communication between parents, churches and educators and youth were apparent. Dependency of young people on their peers for information on sexual issues, the revelation by other studies of the centrality of adolescents' and young adults' sexual identities, and their need to belong to a group have clarified the reasons for the strong influence of perceived social pressure on sexual behaviours.

The three key variables, partner age difference, the number of sexual partners in 3 months, and condom use, which have been identified as being affected by the perceived social pressure, have identified priority areas for planning and for implementing effective interventions aimed at changing sexual behaviours. Further research to understand the dynamics around such variables and how the perceived social pressure is experienced by students is necessary. The last two constructs of TPB to be discussed are perceived behavioural control and behavioural intentions.

According to the TPB, control beliefs and behavioural intentions are regarded as the two constructs that directly influence behaviour. The PBC construct revealed that most

participants in the current study were from poor backgrounds and that they expected to have more financial needs in future than they had at present. Economic disadvantage have been discovered as encouraging risky sexual behaviours, especially transactional and intergenerational. Control beliefs, however, did not prove to influence sexual behaviours in this study, which might have been due, according to Ajzen's (1991:185) assertion, to such beliefs being unrealistic when there are some changes in circumstance. Also, contrary to the general knowledge that behavioural intentions directly influence behaviour, intentions were shown not to have much influence in this study.

5.5 Recommendations for future research

The findings from the current study have implications for both programme and research activities. The findings of the study indicate that, in order to improve sexual behaviours among young people at universities, interventions must target their social environment and their perceived social norms specifically. There is a great need to fill in the information gap that is created by the lack of communication with adults on sexual issues. There is also a need to explore further the influence of attitudes and control beliefs on young people's sexual behaviours.

In terms of programme design and implementation, the following holds true:

- The peer education programme that is already running needs evidence-based evaluation to scientifically identify its successes and weaknesses. More systematic efforts to infuse more information into bridging the identified gap need to be sorted out and implemented. First-year university students require prioritisation and to be afforded a sheltered platform from which to be oriented to campus life, which is said to be open to transactional and intergenerational sex, multiple and concurrent partnerships and unprotected casual sex. Such platforms should enable them to come to make informed choices regarding their sexual liaisons. They need to be afforded a platform that allows for debate and the negotiation of messages and behaviours, leading to the development of new collective norms of behaviour, rather than merely seeking convincing them to change their own behaviour.
- Sexual and reproductive health service providers need to be an active part of peer-led education, in order that they might infuse their expertise and experience into the peer educators. They need to allocate enough time to counselling all their clients about all

sexuality issues, starting from the menstrual cycle, dual protection, identification of STI symptoms, and other pressing issues. They also need to collaborate with other stakeholders, like residence officers, student counsellors, and academics, to bring about innovative promotive and preventive programmes both within and outside the walls of the clinic.

In terms of research activities, the findings of the current study indicated that there was still a considerable gap in the understanding of factors influencing sexual behaviours among university students. Accordingly, the following applies:

- More theory-based qualitative and quantitative psychosocial research work is needed to examine the existing social norms further and to explore the available information on sexuality, in order to plan targeted interventions.
- The same study could be repeated including more campuses to increase the representativeness of the research findings.
- It would be interesting to conduct the same study on students at second- or third-year level to examine their perceived behavioural control mechanisms, as the theory explored in the current study holds that such mechanisms can directly predict behaviour.

5.6 Conclusion

The current study attempted to gain a better understanding of the factors that influence the sexual behaviours of first-year university students. An initial concern that motivated the study was the implementation of initiatives that were aimed at improving sexual behaviours simply because they were known to be effective elsewhere, without prior assessment of the needs/challenges that were specific to the target population. The results of the study lend support to the relevance of TPB in the field of adolescent sexual behaviour. A lot of information that is extremely useful in understanding sexual behaviours has been revealed. Important factors that can be targeted in designing and implementing behaviour change interventions that might be effective, has been identified. It is hoped that the results of this study can positively contribute towards the development and evaluation of effective, target-specific sexual behaviour change initiatives.

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Appendix A

No 3 Uvimba circle
South ridge Park
Mthatha
5100
09 May 2011

Dear participant

RE: Participant information and consent form.

TITLE OF THE RESEARCH PROJECT: Perceptions of first year students regarding engaging in sexual behaviours at a university campus.

REFERENCE NUMBER: N11/04/110

PRINCIPAL INVESTIGATOR: Nomawethu Patricia Qinisile

ADDRESS: Private Bag X 1, Mthatha, 5099.

CONTACT NUMBER: Work - 047 502 2727, Cell - 073 989 9792, Fax -047 502 2493, email - nqinisile@wsu.ac.za

You are being invited to take part in a research project. Please take some time to read the information presented here, which will explain the details of this project. Please ask the study researcher any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research entails and how you could be involved. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

This study has been approved by the **Health Research Ethics Committee (HREC) at Stellenbosch University** and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki, South African Guidelines for Good Clinical Practice and the Medical Research Council (MRC) Ethical Guidelines for Research.

The study will be conducted only at Nelson Mandela Drive site, Mthatha campus, Walter Sisulu University. 20% of all first year students registered in this campus will be recruited. The study is conducted as a requirement for the researcher's Master's degree.

The aim of the study is to identify and describe the perceptions of first year university students regarding engaging in sexual behaviours. Such information will assist in developing and improving the existing behaviour change interventions and programs. Each participant will be given a questionnaire to complete and it will be collected by the researcher immediately after completion.

It will take about 30 minutes to complete the questionnaire. The researcher will remain with you while completing the questionnaire. You may ask the researcher if you need clarity on any of the questions. When you have finished put the completed questionnaire in the sealed box provided at the front of the lecture room.
You will then be contacted in a month's time to report on whether you have engaged in any sexual behaviour and how often.

You have been invited to the study because we belief that your contribution will be valuable in achieving the aim of the study. Your responsibility is to complete the questionnaire as fully and honestly as possible. You will also be required to supply the researcher with your contact details to be contacted with after one month period.

There are no personal benefits to you for participating in this study. The service providers and program developers will benefit by getting the information that will assist in evaluating, improving and developing behaviour change interventions and programs that are evidence-based and relevant to this population group. Such programs will eventually benefit the university community.

There are no risks involved in taking part in this study. The questionnaires will not have any identifiable information and therefore will be impossible to trace questionnaires back to participants. The information collected will be treated as confidential and protected. If it is used in a publication or thesis, the identity of the participant will remain anonymous. Only the researcher, her supervisor and the statistician will have access to the information. You will not be paid to take part in the study. There will be no costs involved for you, if you do take part.

You can contact Sister Qinisile at cell: 0739899792 or 047 502 2727 if you have any further queries or encounter any problems. You can contact the **Health Research Ethics Committee** at 021-938 9207 if you have any concerns or complaints that have not been adequately addressed by your researcher. You will receive a copy of this information and consent form for your own records.

Thank you for your time.

Regards,
N. P. Qinisile
.....

Declaration by participant

By signing below, I ……..……. agree to take part in a research study entitled 'Perceptions of first year students regarding engaging in sexual behaviours at a university campus'.

I declare that:

I have read or had read to me this information and consent form and it is written in a language with which I am fluent and comfortable.

I have had a chance to ask questions and all my questions have been adequately answered.

I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.

I may choose to leave the study at any time and will not be penalised or prejudiced in any way.

I may be asked to leave the study before it has finished, if the researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.

Signed at (*place*) .....….....…….. on (*date*) ……...…….. 2011.

Signature of participant Signature of witness

Declaration by investigator

I *(name)* ……..…… declare that:

I explained the information in this document to ……..
I encouraged him/her to ask questions and took adequate time to answer them.
I am satisfied that he/she adequately understands all aspects of the research, as discussed above
I did not use an interpreter.

Signed at (*place*) .....….....…….. on (*date*) ……...…….. 2011.

Signature of investigator

Signature of witness

17 June 2011

MAILED

Miss N Qinisile
Department of Nursing
2nd Floor
Teaching Block

Dear Miss Qinisile

Perceptions of first year students regarding engaging in sexual behaviours at a university campus.

ETHICS REFERENCE NO: N11/04/110

RE : APPROVAL WITH STIPULATIONS

It is a pleasure to inform you that a review panel of the Health Research Ethics Committee has approved the above-mentioned project with STIPULATIONS on 17 June 2011, including the ethical aspects involved, for a period of one year from this date.

1. This study cannot start until all the necessary approvals from Wather Sisulu University are in place. Copies of these approvals must also be submitted to Stellenbosch Research Ethics for our records.

This project is therefore now registered and you can proceed with the work. Please quote the above-mentioned project number in ALL future correspondence. You may start with the project. Notwithstanding this approval, the Committee can request that work on this project be halted temporarily in anticipation of more information that they might deem necessary.

Please note a template of the progress report is obtainable on www.sun.ac.za/rds and should be submitted to the Committee before the year has expired. The Committee will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly and subjected to an external audit.

Translations of the consent document in the languages applicable to the study participants should be submitted.

Federal Wide Assurance Number: 00001372
Institutional Review Board (IRB) Number: IRB0005239

The Health Research Ethics Committee complies with the SA National Health Act No.61 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 Part 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health).

Please note that for research at primary or secondary healthcare facility permission must still be obtained from the relevant authorities (Western Cape Department of Health and/or City Health) to conduct the research as stated in the protocol. Contact persons are Ms Claudette Abrahams at Western Cape Department of Health (healthres@pgwc.gov.za Tel: +27 21 483 9907) and Dr Hélène Visser at City Health (Helene.Visser@capetown.gov.za Tel: +27 21 400 3981). Research that will be conducted at any tertiary academic institution requires approval from the relevant hospital manager. Ethics approval is required BEFORE approval can be obtained from these health authorities.

Prof GE Ekosse: Director: Research Development
Nelson Mandela Drive, Private Bag X1, Unitra Mthatha, 5117
Tel: (047) 502 2947/2647 Fax: (047) 502 2185
Buffalo City – Potsdam Campus
Tel: (043) 708 5444 Fax: (043) 7085458 Cell: 083 2810 557
gekosse@wsu.ac.za

September 2011

Ms NP Qinisile
3 Uvimba Circle
Southridge Park
Mthatha

Dear Ms Qinisile,

Re: Request to Conduct a Research Study among Students at WSU

Permission is granted provided an ethical clearance from the University of Stellenbosch is submitted to the Directorate of Research Development, WSU, prior to the commencement of the administration of the questionnaire.

Regards

Prof GE Ekosse
Director: Research Development

RESEARCH STUDY QUESTIONNAIRE

A. DEMOGRAPHIC DATA.

Instructions: The following questions are about your personal details. For each item, please make a cross (X) in the appropriate space next to the right answer. Choose only one answer for each item. Do not skip any of the questions and please be as accurate and truthful as possible.

1. What is your age?

1. 17 years	
2. 18 years	
3. 19 years	
4. 20 years	
5. 21 years	
6. 22 years	
7. 23 years	
8. 24 years	
9. 25 years	
10. 26 years	
11. 27 years	
12. 28 years	
13. 29 years	
14. 30 years	
15. 31 years and more	

2. What is your gender?

1. Male	
2. Female	

3. What is your race?

1. White	
2. Asian	
3. Colored	
4. Black	
5. Other	

4. What is your marital status

1. Single	
2. Married	
3. Divorced	
4. Widowed	
5. Other	

5. In what religion were you raised?

1. Christian	
2. Muslim	
3. Jewish	
4. Buddhist	
5. Other	

6. Are you currently actively attending church services?

1. Yes	
2. No	

7. What is your current dating status?

1. I do not date	
2. Not seeing anyone currently, but I am looking	
3. I date a lot of different people	
4. I date only a couple of different people	
5. I date only one person	
6. I am involved in a long term faithful relationship (more than 6 months).	
7. I am involved in a long term unfaithful relationship (more than 6 months)	
8. I am engaged	
9. I am married.	

8. How old were you when you first willingly had sexual intercourse?

1. I had never had sexual intercourse	
2. I had never willingly had sexual intercourse	
3. 13 years and younger	
4. 14 years	
5. 15 years	
6. 16 years	
7. 17 years	
8. 18 years	
9. 19 years	
10. 20 years and older	

9. What is the age difference between you and your sexual partner?

1. 0 – 5 years younger	
2. 6 - 10 years younger	
3. 11 and above years younger	
4. 0- 5 years older	
5. 6-10 years older	
6. 11 and above years older	
7. I do not have a partner	

10. Do you have any children?

1. Yes	
2. No	

11. How many partners have you willingly had sex with in your lifetime?

1. 0	
2. 1- 5	
3. 6-10	
4. 11 and above	

12. How many sexual partners did you have sex in the last 3 months?

1. 0	
2. 1-5	
3. 6-10	
4. 11 and above	

13. How would you rate your frequency of condom use during sexual intercourse?

1. Never had sexual intercourse	
2. Never used a condom during sexual intercourse	
3. Uses condom sometimes during sexual intercourse	
4. Using condom most of the times during sexual intercourse	
5. Always uses condom during sexual intercourse	

14. Where do you currently live?

1. On campus residences	
2. Off campus in campus residences	
3. Off campus off campus residences	
4. At home with parents	
5. Other	

15. Who brought you up?

1. Both parents	
2. Father	
3. Mother	
4. Relatives	
5. Other	

16. Approximately what is your parent's yearly income?

1. Unemployed	
2. Under R10 000	

3. R10 000 – R50 000	
4. R51 000 – R80 000	
5. R81 00 – R100 000	
6. R100 000 – R200 000	
7. More than R200 000	
8. Do not know.	

17. What is your father's educational level?

1. Do not know	
2. Never went to school	
3. Primary school level	
4. High school level	
5. Diploma graduate	
6. Degree graduate	
7. Post graduate	

18. What is your mother's educational level?

1. Do not know	
2. Never went to school	
3. Primary school level	
4. High school level	
5. Diploma graduate	
6. Degree graduate	
7. Post graduate	

19. Where did you get information on sexuality? (Tick all appropriate answers).

1. Parents	
2. Peers	
3. Media	
4. School	
5. Church	
6. None	

20. Do you drink alcohol?

1. Yes	
2. No	

B. ATTITUDES

Instructions: The following questions are about your attitudes towards sexual behaviours. You might not have engaged in any of these behaviours but you have your beliefs. For each item, please make a cross (X) on the appropriate column that best describes your belief. Choose only one answer for each item. Do not skip any of the questions and please be as accurate and truthful as possible.

Attitude towards sexual behaviour	Answer				
	1 Strongly disagree	2 Disagree	3 Somewhat agree	4 Agree	5 Strongly agree
21) Abstaining from sex in the forthcoming month will prevent unintended pregnancy and sexually transmitted infections (STIs) including HIV.					
22) Avoiding having sex with somebody that I just met (casual sex) in the forthcoming month will prevent unintended pregnancy and STIs including HIV.					
23) Using a condom every time I have sex in the forthcoming month will prevent unintended pregnancies and STIs including HIV.					
24) Being faithful to one partner in the forthcoming month will prevent unintended pregnancies and STIs including HIV.					
25) Having more than one sexual partner at a time will increases chances of having STIs including HIV.					
26) Changing sexual partners very often increases chances of having STIs including HIV					
27) Having many sexual partners can increase chances of having cancer of the uterus (womb).					
28) Having sex with someone much older than yourself makes it difficult to negotiate safe sex (condom use and faithfulness).					
29) Having sex in exchange for money, goods or favours makes it difficult to negotiate safe sex (condom use and faithfulness).					
30) Preventing unintended pregnancy and STIs including HIV is good.					

C. PERCIEVED SOCIAL NORMS.

Instructions: The following questions are about perceived normative beliefs regarding sexual behaviors. For each item, please make a cross (X) on the appropriate column that best describes your perceived social norms. Choose only one answer for each item. Do not skip any of the questions and please be as accurate and truthful as possible.

Perceived social norms	Answer				
	1 Strongly disagree	2 Disagree	3 Somewhat agree	4 Agree	5 Strongly agree
31) My family would approve if I abstain from sex in the forthcoming month.					
32) My friends would approve if I abstain from sex in the forthcoming month.					
33) My partner would approve if I abstain from sex in the forthcoming month.					
34) My family would disapprove if I have sex with somebody that I just met in the forthcoming month.					
35) My friends would disapprove if I have sex with somebody that I just met in the forthcoming month.					
36) My partner would disapprove if I have sex with somebody that I just met in the forthcoming month					
37) My family would disapprove if I have sex with somebody much older than me in the forthcoming month.					
38) My friends would disapprove if I have sex with somebody much older than me in the forthcoming month.					
39) My partner would disapprove if I have sex with somebody much older than me in the forthcoming month.					
40) My family would approve if I become faithful to one partner in the forthcoming month.					
41) My friends would approve if I become faithful to one partner in the forthcoming month.					
42) My partner would approve if I become faithful to one partner in the forthcoming month.					
43) My family would approve if I use condom every time I have sex in the forthcoming month.					
44) My friends would approve if I use condom every time I have sex in the forthcoming month.					
45) My partner would approve if I use condom every time I have sex in the forthcoming month.					
46) My family would disapprove if I have sex in exchange for money, goods or favours.					
47) My friends would disapprove if I have sex in exchange for money, goods or favours.					

48) My partner would disapprove if I have sex in exchange for money, goods or favours.					
	1 Not at all	2 A little bit	3 Somewhat a bit	4 A lot	5 Very much
49) When it comes to abstaining from sex, how much do you want to do what your family think you should do					
50) When it comes from abstaining from sex, how much do you want to do what your friends think you should do.					
51) When it comes from abstaining from sex, how much do you want to do what your partner think you should do.					
52) When it comes to using condom every time you have sex, how much do you want to do as your family think you should do.					
53) When it comes to using a condom every time you have sex, how much do you want to do as your friends think you should do					
54) When it comes to using a condom every time you have sex, how much do you want to do as your partner think you should do					
55) When it comes to being faithful to one partner, how much do you want to do as your family think you should do.					
56) When it comes to being faithful to one partner, how much do you want to do as your friends think you should do.					
57) When it comes to being faithful to one partner, how much do you want to do as your partner think you should do.					
58) When it comes to having sex with somebody that you just met, how much do you want to do as your family thinks you should do.					
59) When it comes to having sex with somebody that you just met, how much do you want to do as your friends think you should do.					
60) When it comes to having sex with somebody that you just met, how much do you want to do as your partner thinks you should do.					
61) When it comes to having sex with somebody much older than yourself, how much do you want to do as your family thinks you should do.					
62) When it comes to having sex with somebody much older than yourself, how much do you want to do as your friends thinks you should do.					
63) When it comes to having sex with somebody much older than yourself, how much do you want to do as your partner thinks you should do.					
64) When it comes to having sex in exchange for money, goods or favours, how much do you want to do as your family thinks you should do.					

65) When it comes to having sex in exchange for money, goods or favours, how much do you want to do as your friends think you should do.					
66) When it comes to having sex in exchange for money, goods or favours, how much do you want to do as your partner thinks you should do.					

D. PERCIEVED BEHAVIORAL CONTROL

Instructions: The following questions are about perceived behavioral control. For each item, please make a cross (X) on the appropriate column that best describes your perceived behavioral control. Choose only one answer for each item. Do not skip any of the questions and please be as accurate and truthful as possible.

Perceived Behavioral Control	Answer				
	1 Strongly disagree	2 Disagree	3 Somewhat agree	4 Agree	5 Strongly agree
67) I expect that I will have more financial needs in the forthcoming month.					
68) I expect that I will be drunk in the forthcoming month.					
	1 Much more easy	2 easy	3 Somewhat difficult	4 difficult	5 Much more difficult
69) Having more financial needs will make abstaining from sex in the forthcoming month…….					
70) Being drunk will make abstaining from sex in the forthcoming month…….					
71) Having more financial needs will make using a condom every time I have sex in the forthcoming month……..					
72) Being drunk will make using a condom every time I have sex in the forthcoming month……..					
73) Having more financial needs will make avoiding having sex with somebody that I just met in the forthcoming month……					
74) Being drunk will make avoiding having sex with somebody that I just met in the forthcoming month……					
75) Having more financial needs will make being faithful to one partner in the forthcoming month…….					
76) Being drunk will make being faithful to one partner in the forthcoming month……					
77) Having more financial needs will make avoiding having sex with somebody much older than myself in the forthcoming month…….					
78) Being drunk will make avoiding having sex with somebody much older than myself in the forthcoming month……					
79) Having more financial needs will make avoiding having sex in exchange for money, goods or favours in the forthcoming month…….					

80) Being drunk will make avoiding having sex in exchange for money, goods or favours in the forthcoming month...					
	1 Strongly disagree	2 Disa gree	3 Somewhat agree	4 agree	5 Strongl y agree
81) It is mostly up to me whether or not I abstain from sex in the forthcoming month.					
82) It is mostly up to me whether or not I have sex with somebody that I just met in the forthcoming month.					
83) It is mostly up to me whether or not I use a condom every time I have sex in the forthcoming month.					
84) It is mostly up to me whether or not I am faithful to one partner in the forthcoming month.					
85) It is mostly up to me whether or not I have sex with somebody much older than myself in the forthcoming month.					
86) It is mostly up to me whether or not I have sex in exchange for money, goods or favours in the forthcoming month.					

E. INTENTIONS

Instructions: The following questions are about your intentions to engage in sexual behavior. For each item, please make a cross (X) on the appropriate column that best describes your intentions. Choose only one answer for each item. Do not skip any of the questions and please be as honest as possible.

Intentions	Answer				
	1 Strongly disagree	2 Disagree	3 Somewhat agree	4 Agree	5 Strongly agree
87) I intend to abstain from sex in the forthcoming month.					
88) I intend to use a condom every time I have sex in the forthcoming month.					
89) I intend not to have sex with somebody that I just met in the forthcoming month.					
90) I intend to be faithful to one partner in the forthcoming month.					
91) I intend not to have sex with somebody much older than myself in the forthcoming month.					
92) I intend not to have sex in exchange for money, goods or favours in the forthcoming month.					
93) I will try to abstain from sex in the forthcoming month					
94) I will try to use a condom every time I have sex in the forthcoming month					
95) I will try not to have sex with somebody that I just met in the forthcoming					
96) I will try to be faithful to one partner in the forthcoming month					
97) I will try not to have sex with somebody much older than myself in the forthcoming month					
98) I will try not to have sex in exchange for money, goods or favours in the forthcoming month					