

**ALCOHOL USE AND UNSAFE SEX PRACTICES
AMONG STUDENTS (17-25 YEAR OLDS) AT THE
UNIVERSITY OF THE WESTERN CAPE**

BY

EDNA GRACE RICH



Mini-thesis submitted in partial fulfillment of the requirements for the
degree of M.A. (Child and Family Studies)

Department of Social Work
Faculty of Community and Health Sciences
University of the Western Cape

SUPERVISOR: DR. ANDREW MARTIN

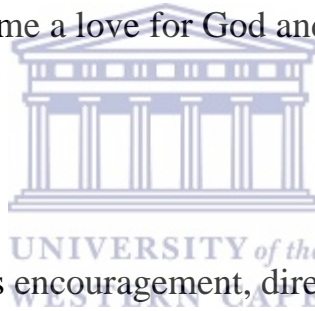
2004

ACKNOWLEDGEMENTS

I would like to acknowledge, and express my sincere thanks to those who helped make this thesis possible:

My husband, Trevor (and children) for your unwavering support and time sacrificed to enable me to complete this thesis;

My Dad, for instilling in me a love for God and my fellowman, and a passion for learning;



Dr Andrew Martin for his encouragement, direction and continual motivation while supervising this study;

Everyone who took part in the survey, without whose effort this thesis would not have been possible;

Finally to family and friends- I am eternally grateful for your loyal assistance and encouragement in times of need.

DECLARATION

The author hereby declares that this whole thesis, unless specifically indicated to the contrary in the text, is her own original work.



.....

Edna Grace Rich

ABSTRACT

This study aimed to examine the lifestyle of young sexually active students in relation to alcohol induced unsafe sex practices (i.e. multiple partners, unprotected, and unplanned sex) with the purpose of establishing whether alcohol use is a factor affecting HIV risk increase. Data was collected by means of an anonymous self-report questionnaire (Student Lifestyle Survey), and the cross-sectional convenience sample consisted of 777 students (60% females, 40% males) aged 17 to 25 years at the University of the Western Cape (Cape Town, South Africa).

Data from similar investigations are reviewed and results thereof are placed into context by reviewing four influential theories utilized namely: Problem Behaviour; Social Cognitive; Alcohol Expectancy; and Alcohol Myopia Theories. It is on the basis of these theoretical understandings that possible explanations are provided for the outcome of this study.

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

No statistically significant correlation was found in support of the alcohol/risky sex hypothesis, but a definite link/relationship between these variables were established as findings suggest that unsafe sex practices such as non-condom use and multiple partners *increased* with the consumption of alcohol. (Overall men reported higher levels of alcohol use, multiple partners, and non-condom use.)

Other main findings include: the majority (73%) of sample do *not* drink frequently (rarely or once or twice a month), and only 13% report currently having more than one sexual partner; 17% report *never* using a condom; more than 50% *always* use a condom with primary partners; and 63% with non-primary partners.

The study's findings are discussed in relation to implications for health education and recommendations for future research are suggested.



KEYWORDS

Adolescence

Adolescence is the time when young people are preparing to take on the roles and responsibilities of adulthood. The exact age of adolescence varies greatly across cultures, and roughly expands across the age-range of ten to eighteen years (Arnett, 2001).

High-risk sexual behaviour

Can be defined as sexual behaviour that results in negative consequences. These behaviours could include: failure to take protective action such as condom use and birth control; having casual/unknown or multiple partners; failure to discuss risk topics prior to intercourse; and sexually transmitted diseases (including HIV).

HIV/AIDS

HIV- human immunodeficiency virus.

AIDS- acquired immunodeficiency syndrome.

Primary partner

Primary partner – someone to whom one feels committed to above anyone else.

Non-primary partner

Non-primary partner- someone you have had sex with “other” than a primary partner (casual, new partners one-night stands etc.) (Graves & Leigh, 1995).

Problem behaviour

The behaviour that young people engage in that is viewed by adults as a source of problems- such as substance use, pre-marital and unprotected sex (Arnett, 2001).

STI's

Sexually transmitted infections.

Unsafe sex

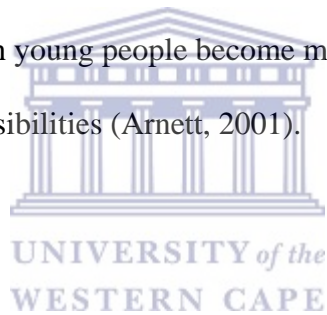
For the purpose of this study it would refer to non-condom use, unplanned sexual activity, and multiple partners.

UWC

University of the Western Cape.

Young people

Combined term for adolescents and emerging adults (aged roughly between 18-25 years). A period during which young people become more independent from parents and start to explore life's possibilities (Arnett, 2001).



CONTENTS

TITLE PAGE	
ACKNOWLEDGEMENTS	ii
DECLARATION	iii
ABSTRACT	iv
KEYWORDS	vi
TABLE OF CONTENTS	viii
CHAPTER 1: INTRODUCTION	1
1.1 BACKGROUND TO THE STUDY	1
1.2 RATIONALE OF THE STUDY	3
1.3 STATEMENT OF RESEARCH PROBLEM	4
1.4 AIMS OF THE STUDY	5
1.5 RESEARCH QUESTION	5
1.6 HYPOTHESES	6
1.7 SIGNIFICANCE OF THE STUDY	7
1.8 CHAPTER SUMMARY	7
1.9 LAYOUT OF SUBSEQUENT CHAPTERS	8

CHAPTER 2: LITERATURE REVIEW AND THEORETICAL FRAMEWORK	9
2.0 INTRODUCTION	9
2.1 BRIEF OVERVIEW OF YOUTH AND HIV/AIDS	9
2.2 RESEARCH ON ADOLESCENTS AND YOUNG ADULTS	11
2.2.1 YOUTH AND ALCOHOL USE/ABUSE IN SOUTH AFRICA	11
2.2.2 ALCOHOL USE AND UNSAFE SEX IN SOUTH AFRICA	12
2.2.3 INTERNATIONAL STUDIES OF ALCOHOL AND UNSAFE SEX	13
2.2.4 THE ALCOHOL/RISKY SEX DEBATE	15
2.3 THEORETICAL FRAMEWORK	18
2.3.1 PROBLEM BEHAVIOUR THEORY	18
2.3.2 SOCIAL COGNITIVE THEORY	22
2.3.3 ALCOHOL EXPECTANCY THEORY	26
2.3.4 ALCOHOL MYOPIA THEORY	28
2.4 INTERRELATEDNESS OF ALCOHOL EXPECTANCY AND ALCOHOL MYOPIA THEORIES	29
2.4.1 ALCOHOL EXPECTANCY RESEARCH STUDIES	30
2.4.2 ALCOHOL MYOPIA RESEARCH STUDIES	31
2.4.3 SUMMARY OF INTERRELATIONSHIP OF THESE TWO THEORIES	32

2.5	CONCLUSION	34
	CHAPTER 3: METHODOLOGY	35
3.1	ORIGINAL STUDY	36
3.1.1	SAMPLE SELECTION	36
3.1.2	INSTRUMENTATION	36
3.1.3	RELIABILITY AND VALIDITY	36
3.1.4	DATA COLLECTION PROCEDURE	36
3.1.5	ETHICAL CONSIDERATIONS	39
3.2	PRESENT STUDY	40
3.2.1	INTRODUCTION	40
3.2.2	RESEARCH SETTING	40
3.2.3	SAMPLE	40
3.2.4	PROCEDURE	41
3.2.5	DATA ANALYSIS	42
	CHAPTER 4: RESULTS	44
4.1	SAMPLE CHARACTERISTICS	45
4.1.1	BRIEF DESCRIPTION OF ORIGINAL SAMPLE	45
4.1.2	DESCRIPTION OF STUDENTS USED IN PRESENT STUDY	45



4.2	ALCOHOL USE	50
4.2.1	FREQUENCY OF ALCOHOL USE	50
4.2.2	FREQUENCY OF ALCOHOL USE BEFORE SEX	51
4.2.3	UNPLANNED SEXUAL ACTIVITY DUE TO ALCOHOL USE	52
4.2.4	LIKELIHOOD OF ALCOHOL RELATED / UNSAFE SEX	53
4.3	SEXUAL BEHAVIOUR	54
4.3.1	CURRENT NUMBER OF SEXUAL PARTNERS	54
4.3.2	SEXUAL ENCOUNTERS WITH PRIMARY PARTNERS	56
4.3.3	SEXUAL PARTNERS OF STUDENTS WHO DRINK BEFORE SEX	57
4.3.4	NUMBER OF PARTNERS AND FREQUENCY OF ALCOHOL USE	58
4.4	PREVENTATIVE MEASURES	59
4.4.1	CONDOM USE WITH PRIMARY PARTNER	59
4.4.2	CONDOM OR DENTAL DAM USE WITH NON-PRIMARY PARTNERS	60
4.4.3	PREVENTATIVE MEASURES TO DECREASE HIV INFECTION	61
4.5	CROSS TABULATIONS	62
4.5.1	USE OF ALCOHOL BEFORE SEX BY GENDER	62
4.5.2	STUDENTS LESS LIKELY TO USE CONDOMS WITH ALCOHOL	63
4.6	CHAPTER SUMMARY	67

CHAPTER 5: DISCUSSION AND CONCLUSION	68
5.1 BRIEF SUMMARY OF OVERALL STATISTICS	68
5.2 DECREASES IN HIV INFECTION RISK	70
5.3 PERCEPTIONS OF UNSAFE/ UNPLANNED SEX	70
5.4 HYPOTHESES: OUTCOMES AND DISCUSSIONS	71
5.4.1 USE OF ALCOHOL AND GENDER	71
5.4.2 MULTIPLE PARTNERS	71
5.4.3 STUDENTS LESS LIKELY TO USE CONDOMS WITH ALCOHOL USE	71
5.5 LIMITATIONS OF THE STUDY	73
5.6 SUGGESTIONS FOR FUTURE RESEARCH	74
5.7 IMPLICATIONS OF THE PRESENT FINDINGS	75
5.8 CONCLUSION	76
LIST OF REFERENCES	78
APPENDICES	



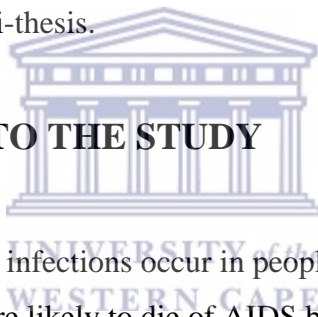
CHAPTER 1

INTRODUCTION AND ORIENTATION

1.0 INTRODUCTION

In this chapter the background of the study and definition of relevant terms are presented. This is followed by the rationale for the study, statement of the problem, relevant research questions as well as the hypotheses that were tested. The significance of the study is presented next, followed by a brief chapter summary and a layout of the rest of the mini-thesis.

1.1 BACKGROUND TO THE STUDY

The logo of the University of the Western Cape, featuring a classical building facade with columns and a pediment, with the text 'UNIVERSITY of the WESTERN CAPE' overlaid in a light blue color.

Currently half of all new HIV infections occur in people between the ages of 15 and 24, and many young people are likely to die of AIDS before they reach 35 (Reproductive Health Organization (RHO), 2004). The sexual behaviour of young people is also highly influenced by the use of alcohol and drugs, which is believed to decrease decision-making skills and negatively impacts on behaviour (National Association of Social Workers (NASW), 2002).

Worldwide trends indicate that when a country has undergone drastic socio-economic and political change as has happened in South Africa, these changes often reverberate within a sphere of risk behaviour (Visser, 2003). Research shows (Varga, 2000 cited in RHO, 2004) that South African young people are especially at risk of HIV infection as they begin engaging in intercourse at a young age, have multiple partners, make little use of contraceptives, and have low sexual negotiation skills. Condom use continues to suffer from stigmatization and peer pressure and

coercion limit their ability to abstain from sex, leading to promiscuity, infidelity, and even prostitution (Varga, 2000 cited in RHO, 2004).

Although condom use has been identified as an effective barrier to HIV infection, adolescent sexual activity remains to be characterized by unsafe sex practices. Figures for the last two years show that between 14-16% of pregnant teenagers were found to be HIV positive (Department of Health, 2001; 2002 cited in Visser, 2003). The National Association of Social Workers report that approximately 50 percent of all high school students in grades nine to 12 have had sexual intercourse, with only about half of the 12th graders reporting having used a latex condom during intercourse (NASW, 2002). Parry & Abdool-Karim (2000) cites Flisher and Parry (unpublished report, 1997) having used data from a survey in Cape Town of 2779 students in grades eight and 11, to have found a strong association between substance use and unsafe sex practices such as multiple partners, and unprotected sex.

In 2000, Dr Theresa Barnes conducted a study at UWC on the on a sample of 387 persons (that included students, staff and university managers), to ascertain attitudes and perceptions toward HIV/AIDS. At that time 70 students had voluntarily come to the Campus Health Services to be tested, and 10% (or seven people) had tested positively. Based on these statistics, she assumes that "...there are probably thousands of HIV positive people on campus" although her findings report that only *one* person had publicly revealed his HIV positive status, (Barnes, 2000: 5).

In the same study Barnes notes that although condom supply was widespread and easily available, unprotected sexual behaviour was widely reported. Only 28% of respondents thought condoms were being used when engaging in sexual activity, and 80% felt that it was common for students to engage in casual sexual encounters whilst under the influence of alcohol. Many students felt that organized campus parties were overflowing with alcohol, and that alcohol should be more strictly controlled on campus.

Students recommended that UWC should research and publicly inform them of the nature and extent of the HIV risk-behaviour impact on campus. Staff members also agreed that the lack of information could lead to confusion as to the extent of the problem (Barnes, 2000).

The magnitude of the problem can be seen in the Health Department's latest 2003 National HIV and Syphilis Antenatal Sero-prevalence Survey showing that the Western Cape has a 13.1% HIV prevalence rate, up from 12.4% in the previous year (Caelars, 2004). The same study found the rising figures among the 15 to 30 year-olds with the 15 to 19 year-olds especially reflecting new infections. It would appear that although the main routes of transmission for the HIV virus is widely known, there seem to be little evidence that young people have substantially altered their sexual behaviour to avoid infection.



1.2 RATIONALE OF THE STUDY

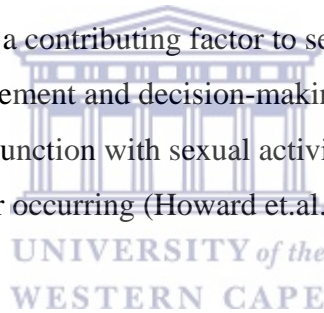
Teens and young adults face many pressures with regards to sexual decisions and alcohol and other substance use. Substance use may increase the probability of initiation of sexual activity and often sexually active adolescents would also engage in substance use. These risk behaviours may lead to unplanned and unprotected sexual intercourse, multiple partners, and being at risk for sexually transmitted infections (including HIV). There is still much to learn about youths' attitudes and experiences with substance use and sexual activity, including how conscious they are about the connection between the two. (Kaiser Family Foundation, 2002).

It would appear that alcohol use and unsafe sex practices are considered to be "the norm" of student life, and whilst campus life provides great opportunities for self-governance and independence, it also creates the challenge of having to learn to manage sexuality and relationships. Like most learning processes it provides

opportunities for growth, but also poses risks of emotional pain, and costly physical health consequences. A worthy investment in our young people would be to endeavour to investigate and highlight risky sexual behaviour in an attempt to bring about change in attitudes, beliefs, and behaviour with regard to HIV/AIDS, safer sex practices, alcohol consumption, and condom use.

1.3 STATEMENT OF RESEARCH PROBLEM

South Africa is renowned as the country with the highest number of people infected by HIV/AIDS, with adolescents and young persons (between the ages of 15 to 29 years) being hardest hit (Howard et.al., 1988 cited in Leigh Graves, 1995). Sexual behaviour remains the key element in the transmission of HIV/AIDS. The use of alcohol has been proposed as a contributing factor to sexual risk-taking as it is thought to interfere with judgement and decision-making. Researchers have found that the use of alcohol in conjunction with sexual activity is likely to increase the probability of risky behaviour occurring (Howard et.al., 1988 cited in Leigh Graves, 1995).



There have been widespread educational efforts to promote sexual behavioural change among South African young people. Varga (1999: 17) notes: “Though evidence is mounting that young people have both the knowledge and the attitudes to effect behavioural change regarding HIV infection, it is *uncertain* whether these factors have led to significant shifts in their sexual practice”.

In order to provide the groundwork for efforts to promote long-term sexual behaviour- modification in young people, we need to investigate the prevalence of unsafe practices and the impact of alcohol use thereupon.

1.4 AIMS OF THE STUDY

Young people have high rates of risk-taking, including alcohol use/abuse and high-risk sex. The main purpose of this study is to gain insight into the drinking patterns and sexual behaviour of young UWC students. The aim is to investigate the relationship between alcohol use and unsafe sex practices (such as unplanned sex, multiple partners, and non/inconsistent condom use) and to identify any shifts in sexual practices in response to the HIV/AIDS crisis.

The specific **objectives** would be:

- (a) To determine students' belief of whether drinking leads to unplanned and unsafe sexual activity.
- (b) To identify whether male students are more likely to use alcohol before sexual intercourse than females.
- (c) To examine young students' drinking patterns in relation to number of sexual partners.
- (d) To examine young students' drinking patterns in relation to condom use/non-use.
- (e) To discover whether students have recently attempted to minimize the risk of possible HIV infection.

1.5 RESEARCH QUESTION

What impact does alcohol have on students' high-risk sexual practices (i.e. unplanned and unprotected sex, and multiple partners) in this HIV/AIDS era?

SUBQUESTIONS

1. How do students perceive alcohol's effect on decision to have unplanned/unsafe sex?
2. Are male students more likely to use alcohol before sexual activity than females?

3. Are students who drink more frequently more likely to have multiple sexual partners?
4. Are students who drink alcohol less likely to use condoms?
Will investigate:
 - (a) Alcohol use *before sex* and condom use with *primary partner* in the last 12 months.
 - (b) *Frequency of alcohol use* and condom use with primary partner in the last 12 months.
 - (c) *Alcohol use before sex* and condom use with *non-primary partner(s)* in the last 12 months.
 - (d) *Frequency of alcohol use* and condom use with primary partner(s) in the last 12 months.
5. Have students recently attempted to reduce their unsafe sex practices in response to the HIV/AIDS pandemic?



1.6 HYPOTHESES

UNIVERSITY of the
WESTERN CAPE

Alcohol consumption impairs judgement that can lead to highrisk sex practices such as unplanned/unsafe sex, non/inconsistent condom use, and multiple partners.

- H₁** Male students are more likely to drink alcohol before sexual activity than females.
- H₂** Students who drink more frequently are more likely to have multiple partners.
- H₃** Students who drink more frequently are less likely to use condoms.

In addition to the above hypotheses student's perception regarding unplanned sex, likelihood of alcohol/unsafe sex, and measures taken to reduce HIV risk practices are explored.

1.7 SIGNIFICANCE OF THE STUDY

It was clear from the Barnes (2000) report that students were “in the dark” concerning HIV/AIDS trends/ prevalence. Condoms were easily available, and despite the demand for it, the majority of respondents (80%) thought that students were having unprotected sex whilst under the influence of alcohol.

By investigating the high-risk sexual behaviour of youth in conjunction with alcohol intake, we hope to shed light on young people’s behavioural responses to the spread and threat of HIV/AIDS. According to Bandura (1994), the recognition by students that they are at risk, may be the first step towards self-efficacy. When students understand what must be done (e.g. delaying sexual intercourse or using protection), and believe in the anticipated *benefit* thereof, they can use those strategies and skills effectively.

The aim would be to encourage a climate of HIV status awareness and discourage the use of unsafe sexual practices. The Preamble of UWC’s HIV/AIDS policy reads ... “to avoid discriminatory action against or stigmatization of such persons as well as preventing those that are HIV-negative from acquiring HIV/AIDS *in the provision candescent to work and study*” (Barnes, 2000).

1.8 CHAPTER SUMMARY

This chapter provided the background to the study. It showed how alcohol consumption and unsafe/unprotected sexual practices pose a major health concern throughout most parts of the world, and in South Africa in particular. It further highlighted the strong relationship between these practices and the alarming spread of the HIV virus. It is assumed that the reduction in alcohol use and risky/unsafe sex will also reduce the current HIV/AIDS pandemic prevailing in South Africa. Increasing the knowledge base of young peoples’ current high-risk sexual behaviour

in conjunction with alcohol intake would inform on behavioural responses to the spread and threat of HIV/AIDS. The findings will be useful for the focus of HIV/AIDS prevention, education, and intervention measures aimed at long-term behaviour modification.

1.9 LAYOUT OF SUBSEQUENT CHAPTERS

Chapter 2 focuses on a review of relevant literature pertaining to this study. Both local and global studies will form part of this section, and an overview will be given of the theoretical frameworks that will be utilized in this study.

Chapter 3 outlines the analysis method used in this study. The aims, description of sample, procedure and instruments used in the baseline study are discussed. An overview of the analysis used in this study will conclude this chapter.

Chapter 4 presents the results of the study. This will include a descriptive presentation of the findings (e.g. tables, graphs etc.).

Chapter 5 discusses the results. This includes providing some explanations for the results as well as the implications and limitations of the study. Suggestions for future research are also presented, and a brief conclusion is provided.

CHAPTER 2

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.0 INTRODUCTION

This review is divided into three parts. The first part will give a brief overview of the consequences of unsafe sex practices among young people worldwide. It will review relevant studies done both nationally and globally with regards to alcohol and unsafe sex practices, drawing attention to contradictions in findings. The second part will present a summary of four theoretical explanations for the link between drinking and risky sexual behaviour. The third part will summarize specific studies done guided by Alcohol Expectancy and Alcohol Myopia models where processes of decision-making will be explored and understood within these two theoretical boundaries to gain significant clarification of the alcohol-sexual behaviour relationship. Relevant evidence will be presented and integrated to provide a more comprehensive concept of the possible psychological processes involved in sexual decision-making after the consumption of alcohol. The dynamic relationship between these two sources will be highlighted to reflect the interrelated link between these two approaches. This review will be followed by a brief conclusion and chapter summary.

2.1 BRIEF OVERVIEW OF YOUTH AND HIV/AIDS

The incidence of the HIV infection worldwide is not only staggering, but the daunting statistics show that currently half of new HIV infections occur in people between the ages of 15 and 25. As most people begin sexual activity during adolescence, (many having sex before the age of 15), a total of nearly 12 million young people is reported to be living with AIDS worldwide and many will die before the age of 35 (RHO, 2004). Alarming reports from the South African Health

Review (2000) states that South Africa has the largest percentage of people living with HIV/AIDS in the world, with estimates that over 1500 people become infected daily (South African Health Review, 2000 cited in Goldstein, Pretorius & Stewart, 2003).

Figures for HIV infected 20 to 24 year old South Africans topped 26 percent and it is believed that half of all 15 year olds are likely to die of AIDS (Parry, 1998). It is possible that many AIDS cases now appearing among those aged 20 to 24 may be coming from those exposed to the virus during their adolescent years (Hein, 1989; Hendricks et al., 1993; Kolbe, 1992 cited in Langer, Warheit & McDonald, 2001).

College/university entrance marks a time of significant change in the life of the young adult, and offers greatly expanded opportunities for self-governance and independence. Based on above-mentioned figures, we can safely say that when entering into college/university life, young peoples' drinking and sexual activity is likely to either begin, or increase in frequency. A literature review that explores how and to which extent substance (particularly alcohol) use/abuse becomes a risk factor for HIV transmission in young persons would shed light upon these daunting concepts. Alcohol effects on decision to have intercourse is examined and probably viewed as the ultimate root cause of sexual risk-taking. The focus will be on how alcohol facilitates unsafe sex practices by influencing choices regarding risk behaviour.

2.2 RESEARCH ON ADOLESCENTS AND YOUNG ADULTS

2.2.1 YOUTH AND ALCOHOL USE/ABUSE IN SOUTH AFRICA

An alarming statistic is that alcohol remains the most commonly abused drug in South Africa, with binge drinking among young people (especially males) in excess of 25% in many communities (Parry, 1998). Alcohol use among school-going youth appears to have increased with age for both males and females (Flisher, Ziervogel, Chalton & Robertson, 1993a cited in Parry, 1998). According to Drugs and Crime Brief (2000), alcohol and drug use has been identified worldwide as potentially risky practices for the contracting and transmitting of HIV (Visser, 2003).

A fair degree of risk-proneness to the development of alcohol related problems were found in *four major South African studies* done among young people (Flisher Ziervogel, Chalton, Leger & Robertson, 1993a; Flisher, Parry, Evans, Lombard & Muller, 1998; Rocha-Silva, de Miranda & Erasmus, 1995; Weir-Smith, 2001 cited in Visser, 2003).

Visser (2003) cites the following researchers' findings:

- (a) Flisher et al. (1993a cited in Visser, 2003), reports that in a sample of 7340 learners from 16 secondary schools in the Cape Peninsula 53% of learners had alcohol drinking experiences.
- (b) Rocha-Silva et al. (1995 cited in Visser, 2003) found that regular alcohol use was common among the 18 to 21 year age-group and that drinking was more prevalent in urban areas, and more common among males than females.
- (c) A survey of 6000 (Grade 8 and 11) learners in 39 Cape Town schools (Flisher et al., 1998; Parry, 1998 cited in Visser, 2003), found that 50% of respondents

reported current alcohol use, and 36% report binge drinking –more than five drinks per occasion.

- (d) From a sample of 300 young people in Gauteng and Limpopo provinces, 50 % of rural respondents reported alcohol use. In the urban area 68% of females, and 80% of males reported alcohol use (Weir-Smith, 2001 cited from Visser, 2003).

Other studies confirmed these findings. In a study of 1378 African young people (aged 10 to 21years) from urban and rural areas in South Africa, it was found that 11.3% urban males and 19.6% of rural males consumed on average equivalent of almost five 340ml beers per day. The corresponding percentages for females were 6.1% in urban areas, and 7.7% in rural areas (Rocha-Silva et al., 1996 cited in Parry, 1998). This links us with the possible risk factors associated with substance abuse of young people.



2.2.2 ALCOHOL USE UNSAFE SEX IN SOUTH AFRICA

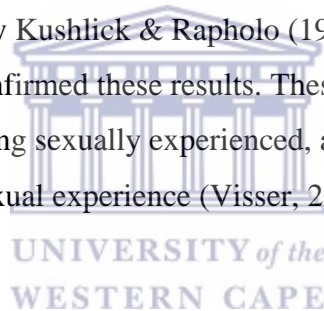
Adolescent sexual activity is characterized by unsafe sex practices. Alcohol and drugs are widely believed to interfere with judgment and decision-making and is therefore considered to be a contributing factor in sexual risk-taking. It has been suggested that their use in conjunction with sexual activity might increase the possibility that unsafe safe practices will occur ((Howard et al., cited in Graves & Leigh, 1995).

These findings are confirmed in Visser’s (2003) study of 460 primary school learners where she found that 14% drank alcohol either to get drunk to forget their problems, or to have fun and “feel good about themselves”. Of the 24% that indicated that they were sexually experienced, 40% protected themselves from HIV/AIDS, and only 35% used birth control measures. Using data from a Cape Town survey of 2779 learners in grades 8 to 11, Flisher and Parry (unpublished report cited in Parry & Abdool-Karim, 2000), also found a strong association

between substance use/binge drinking and other drugs, and unsafe sex (e.g. multiple partners etc). Peltzer (2003) notes that according to the UNAIDS/WHO (2000) report only 23% of men (aged 15 to 49 years), in the Northern Province of South Africa had ever used a condom.

Based on the finding of many other studies done mostly on adolescents in secondary school, researchers concluded that adolescent sexual activity was characterized by early sexual onset, multiple partners, and a low incidence of contraception (Dept of Education and Culture, 1990; Flisher, Roberts & Blignaut, 1992; Flisher, et al., 1993b; 1996; Matthews, Kuhn, Metcalf, Joubert & Cameron, 1990; Matthews, Everett, Binedell & Steinberg, 1995; Mayekiso & Twaise, 1993; Mogotsi, 1997; Visser, 1995 cited in Visser, 2003).

A more extensive study of by Kushlick & Rapholo (1998) of 18,500 learners from 600 schools countrywide, confirmed these results. These researchers report that 49% of those learners reported being sexually experienced, and only half of them had used a condom in a recent sexual experience (Visser, 2003).



2.2.3 INTERNATIONAL STUDIES OF ALCOHOL AND UNSAFE SEX

These alarming figures could be seen as a worldwide trend, as the data corresponds with baseline information in the United States. Beaufort (2002) cites The Center for Substance Abuse Prevention (1993) report to state that 25% of 12 to 17 year olds, and 58% of 18 to 20 year olds report alcohol use. Also that approximately 50% of all high school learners in grades 9-12 have had sexual intercourse; 25 % of all 12th graders has had four or more partners, and only half of those reported having used a latex condom during intercourse (Beaufort, 2002)

Many other studies have been done on adolescents, college students and other young adults in the United States and have found profound risky sex attitudes and

behaviour. These studies have reported high rates of unprotected sexual activity, multiple sex partners, and a decline in age of sexual debut, and (Caron, Davis, Wynn & Roberts, 1992; CDC, 1999; Keeling, 1995; Mickler, 1993; Sells and Blum, 1996 cited in Langer, Warheit & McDonald, 2001).

Alcohol use has been suggested as a potential precursor to a number of sexually HIV risk behaviours (including casual partners and unprotected sex) in a number of studies, and cross-sectional studies show that people who drink *more heavily* are *less likely* to use condoms, and *more likely* to have multiple partners (Bagnall, Plant & Warwick, 1990; Donovan & McEwan, 1995; Leigh & Stall, 1993; Rasch et al., 2000; Robertson & Plant, 1988; Stall, McKuisick, Wiley Coates & Ostrow, 1986; Traeen & Kvaalem, 1996 cited in Morris and Albery, 2001).

Several experiments have found that drinking decreases *intention* to engage in safer sex practices (Gordon, Carey & Carey, 1997; MacDonald, Fong Zanna & Martineau, 2000; MacDonald, Zanna & Fong, 1996 cited in LaBrie, Schiffman & Earleywine, 2002). In women however, neither alcohol use, nor condom use expectancy was related to condom intention (LaBrie et al., 2002). Other evidence has shown that *women* who drink before a planned intercourse session, are *most likely* to use contraception (Robertson & Plant, 1988 cited in Morris & Albery, 2001).

Notably several researchers have found gender differences in the relationship between alcohol and various other sexual risk behaviours (Anderson & Mathieu, 1996; MacDonald et al., 1996; Murphy, Rotheram-Borus & Reid, 1998 cited in LaBrie, et al., 2002). These differences however do not appear to follow any consistent pattern. Some studies reflect increase risk for women, others show decreased risk, still others show *no* gender difference in risk after drinking (LaBrie et al., 2002). The use of condoms in women as a birth control measure seems to provide one possible explanation for these different patterns. (It is hypothesized that if they are not using condoms primarily for birth control measures, they may be less

inclined to do so). The role of female drinking patterns and behaviours need further study to provide a full explanation of differential outcomes.

2.2.4 THE ALCOHOL/RISKY SEX DEBATE

Although there is strong evidence for the belief that adolescents and young adults who use alcohol are more likely to be sexually active and engage in unsafe sex practices, many studies have resulted in contradictory findings. It is notable that although alcohol consumption is one major factor repeatedly *linked* to unsafe sexual practices, not all researchers agree that it is a *determining factor* in the incidence thereof. Graves and Leigh (1995) posit that these differences in findings could be due to various reasons such as methodological inconsistencies, convenience samples and different study populations. Donovan and McEwan (1995) also caution against imposing generalizations and assumptions about one group to another (Poulson, Eppler, Satterwhite, Wuensch & Bass, 1998).

In reviewing studies examining association between drinking and risky sex in samples of college students and youth, Cooper (2002) reports the following findings:

- (a) drinking was strongly related to the decision to have sex, and engage in indiscriminate forms of sex (e.g. having multiple or casual sexual partners), but was inconsistently related to protective behaviours such as condom use (Graves, 1995; Cooper et al., 1994 cited in Cooper, 2002).
- (b) the links among alcohol use, the decision to have sex, and indiscriminate behaviours were found in both between-persons and within-persons, which means that these relationships could not be adequately explained by stable individual differences between people who do and do not drink (Harvey & Beckman, 1986; Cooper & Orcutt, 1997 cited in Cooper, 2002).
- (c) drinking was found to be more strongly associated with decreased protective measures among younger individuals, on first intercourse and for events that had

occurred on average longer ago (Cooper & Orcutt, 1997; Derman & Cooper, 2000 cited in Cooper, 2002).

Cooper's (2002) review concluded that reducing alcohol use in potential sexual situations might decrease some forms of risky sex, but are less likely to directly affect protective behaviours.

Many studies in the U.S. have shown a positive correlation between substance use and risky sexual behaviour (Duncan, Strycker & Duncan, 1999; Fortenberry, 1995; Leigh & Stall, 1993 cited in Guo, et al., 2002). Other studies have shown that alcohol is positively associated with multiple partners (Belcastro & Nicholson, 1982; Cooper; MacDonald, Wells & Fisher et al., 1990; Skinner & George, 1990 cited in Guo, 2002), but negatively associated with condom use (Hingson, Strunin & Berlin et al., 1990 Leigh & Stall, 1993 cited Guo, 2002).

In a local study done of 176 students from Rhodes University, despite high rates of alcohol and/or drug consumption, and the respondents' belief that alcohol and/or drugs facilitate higher risk behaviours, no support for the alcohol/risky sex hypothesis was found (Simpson, 1996). A study done on 1124 youths in Botswana revealed that although consistent condom use was found to be relatively higher among non-alcohol users, there was no significant association between condom and alcohol use (Campbell, 2003).

Morris & Albery (2001) suggest that although reports have indicated that the use of alcohol is related to HIV risk-related sexual behaviour (e.g. condom non-use), due to methodological limitations, *causal* conclusions about the role of alcohol are limited. The authors discuss how the relationship between alcohol use and high-risk sexual behaviour has been studied using *global* association (overall involvement in high-risk behaviour), and *situational* association (specific occasion) studies as well as *event* analysis. These authors note that in global association studies measures of overall substance abuse (e.g. alcohol consumption) and measures of risky sexual

behaviours (e.g. frequency of engaging in unprotected sex) are utilized. In contrast, situational association *studies* measure use of alcohol in conjunction with sexual activity, and event analysis allows for temporal proximity of alcohol consumption and HIV risk behaviour by examining specific events (Gold & Skinner, 1992; Leigh & Stall, 1993; Troki & Leigh, 1991 cited in Albery & Morris, 2001).

The results from the global and situational association studies have indicated that heavier drinkers tend to have more sexual partners, and to use condoms less consistently and that alcohol consumption and sexual activity is related to HIV risk behaviour. However, event specific analysis provides no evidence for the relationship between alcohol consumption and contraceptive use (Leigh, 1990a; Leigh & Stall, 1993; Seenf & Price, 1994 cited in Morris & Albery, 2001).

The three designs therefore would offer correlational results for the relationship between variables, but are limited for describing *causal* process. Morris & Albery (2001) proposes that these inconsistent results indicate that perhaps the mediating or moderating effects of other variables (such as individually held alcohol expectancy beliefs and saliency cues within the sexual situation) explains the link between alcohol use and sexual behaviour.

Poulson, Eppler and Satterwhite et al., (1998) cites other possible explanations such as: distinct age-group differences; cultural differences regarding alcohol use and sexual behaviour of participants in a particular geographic region; and the limitations of self-report studies. People of different geographic regions may also be more/less willing to disclose personal information about their sexual practices.

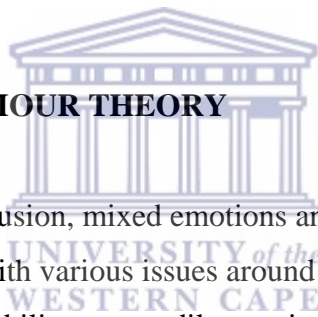
These above-mentioned studies have shown that the relationship between alcohol and sexuality is very complex and scientifically speaking, causative influences on responses and outcomes remain *inconclusive*. It would seem that alcohol consumption has ties with a number of sexual outcomes, (e.g. sexually transmitted diseases, including HIV/AIDS). An urgency therefore remains to strive to gain

understanding of the relationship within theoretical boundaries. As it would therefore seem that no single causal model could be adequately account for the relationship between alcohol and risky sexual behaviour, it becomes necessary to integrate *more than one* plausible model to better account for it.

2.3 THEORETICAL FRAMEWORK

This study draws upon four theories: Problem Behaviour Theory; Social Cognitive Theory; Alcohol Expectancy Theory, and Alcohol Myopia Theory. These theories have been shown to be of great value in understanding a wide range of health-related behaviours and especially risk behaviour in adolescents and young people.

2.3.1 PROBLEM BEHAVIOUR THEORY



Adolescence is a time of confusion, mixed emotions and uncertainly. During this time young people struggle with various issues around self-esteem, self-respect and self-pride. Adolescent vulnerability can readily turn into deviancy whereby the young person turns away from an accepted form of behaviour. Problem-behaviour theory provides a useful conceptual framework for understanding risk behaviour that occurs during the period of adolescence.

Visser (2003: 58) describes risk behaviour as “... behaviour that is either physically or emotionally dangerous or contribute to developmental problems for young people involved”. Although risk-taking behaviour is viewed as part of adolescent development that contributes to independence and maturity, some adolescents tend to engage in dangerous and health-compromising behaviour (Plant & Plant 1992). For instance, unprotected sexual activity can contribute to a risk of HIV infection or teenage pregnancy that can impact severely on the lives of young people (Ebersohn & Eloff, 2003 cited in Visser, 2003).

Well-known scholar Richard Jessor provides a framework consisting of a web of interrelated socio-psychological factors (i.e. social environment, the perceived environment, personality attributes, behaviour and biological and genetic factors) in order to understand the complexity underlying risk behaviour. He shows that risk behaviour is functional, instrumental and goal-directed in terms of the individual's frame of reference and that each domain consists of various risk and protective factors (Jessor, 1992 cited in Visser, 2003). Also that the norms and expectations of the wider culture combined with the individual's everyday experiences, help shape these meanings, goals and expressions of this behaviour (Jessor & Jessor, 1977; Jessor, 1987; Jessor, 1998 cited in Stoyles, 2002).

This model also includes personality factors such as self-esteem, background factors such as family income, and social factors such as parental controls and friends, and other socialization influences (i.e. school, and neighbourhood/community etc.) (Arnett, 2001). Problem behaviours serve as a common social or psychological development *goal*, such as separating from parents, achieving adult status, or gaining peer acceptance. These behaviours may serve to help an adolescent cope with failure, boredom, unhappiness, rejection, low esteem, social anxiety or isolation. For example, adolescents could use substances as a means of gaining social status and acceptance from peers, whilst counteracting feelings of low self-worth (Arnett, 2001).

Martin and Leary (2001) have found that 75% of first year college students report to engage in at least one risky (commonly alcohol drinking) behaviour. Other researchers have noted that concerns and desires to obtain peer acceptance and social approval may be strong determinants of drinking among college students (Chassin et al., 1985; Leary et al., 1994; Martin & Leary, 2001 cited in Korn & Maggs, 2004). Investigations have identified a link between adolescent's conventional or unconventional behaviour and their health behaviour (Donovan, Jessor & Costa, 1991 cited in Stoyles, 2002). Another link was found between adolescent's rejection

of societal norms and their early sexual debut (Costa, Jessor, Donovan & Fortenberry, 1995; cited in Stoyles, 2002).

Drinking and risky sexual behaviour could form part of a larger constellation of risk taking or sensation-seeking behaviour (Adlaf & Smart, 1983; Zuckerman, 1979 cited in Leigh, 1990). These problem behaviours may continue to occur together due to being learned together as part of a structured lifestyle (Donovan & Jessor, 1985 cited in Leigh, 1990).

Jessor calls the pattern of correlations “problem behaviour syndrome”. It is based upon the concept of “proneness” to engage in risk or problem-behaviours. Scholars conducting research have observed that problem behaviour tend to cluster in an individual, e.g. those who experiment with substance use, also tend to engage in risky sexual practices, and minor types of crime such as petty theft etc.(Jessor 1987; Jessor, 1998; Jessor, Donovan & Costa, 1991; Jessor & Jessor, 1977 cited in Arnett, 2001). Several other research sources (to some degree or another) support the usefulness of viewing an individual’s behaviour as portraying a matrix of interrelated behaviours (Ira & Irwin, 1996; Loeber, Farrington, Stouthamer-Loeber & Van Kammen, 1998; Maggs, Frome, Eccles & Barber, 1997 cited in Stoyles, 2002).

Jessor’s studies (and those of others) have found that this model can be used to explain why some young people are more likely than others to engage in problem behaviour (Donovan & Jessor, 1985; Jessor, 1987; Jessor et al., 1991; Jessor & Jessor, 1991 cited in Arnett, 2001). In a five-year longitudinal study of alcohol and drug misuse that involved 400 high school and 200 college youth, the researchers found this theory to account for approximately 50 to 60% of the variance in the composite measure of adolescent problem behaviour (Jessor & Jessor, 1977 cited in Stoyles, 2002).

Some scholars however, have criticized problem-behaviour theory in some respects and have noted that although various problems tend to be correlated, these correlations are not always high, and should not be overstated (Arnett, 1992; McCord, 1990; Osgood et al., 1998 cited in Arnett, 2001). For instance, young people who commit crimes, are more likely than others to use hard drugs, but most young people who commit crimes do *not* use hard drugs (Elliot et al., 1988 cited in Arnett, 2001).

Arnett (2001) also argues that not *all* norm-breaking or risky behaviour that young people display is of a negative nature. He emphasizes that history shows that it is young people who have been the ones (in deviance of oppressive authorities), to take risks for political and social change. In adolescence and emerging adulthood, their relative freedom, provides opportunities for not only socially disruptive behaviour, but also for socially constructive risk taking. He states: “They are often the explorers, the creative thinkers, the innovators...” (Arnett, 2001: p.426).

Jessor et al. (1968) concedes that this socio-psychological framework is not to be interpreted to account for *all* delinquency, or for *absolute* rates of deviance. “The more the sociocultural, socialization, and personality systems –separately and together- have the characteristics ... conducive to deviance, the greater the deviance rate and the greater the likelihood of occurrence, for a given individual, of deviant nature” (Jessor, Graves, Hanson & Jessor, 1968, p.133).

Stoyles (2002), however stresses that the purposeful nature of adolescent behaviour, and the developmentally related *needs* of the adolescent, can lead to their behaviour becoming problematic. Engaging in behaviours such as drinking and sexual activity could be an indication of a desire to affirm maturity and entry into the adult world. When this behaviour is neither age-appropriate nor buffered by a protective environment, it can lead the adolescent into harmful arenas (such as alcohol misuse and unwanted pregnancy etc.).

The aim in intervention processes would be to understand the underlying reasons for risk behaviour, and to promote health-enhancing behaviour that satisfies the *same needs* as that behaviour and/or succeeds in changing the context that instigates and maintains behaviour (Jessor, 1992 cited in Visser, 2003).

2.3.2 SOCIAL COGNITIVE THEORY

Bandura's Social Cognitive model is based on how social experiences cognitively influences behaviour and development and helps us to understand and predict individual and group behaviour. Social cognitive theory defines human behaviour as a dynamic and reciprocal interaction of personal, behavioral, as well as environmental influences. According to this theory, individual behaviour is uniquely determined by each of these three factors (Bandura, 1986 cited in Bandura, 1994).

The *person-behaviour* interaction involves the bi-directional influences of one's emotions, thoughts, actions, and biological properties. A person's expectations, beliefs, goals, self-perceptions and intentions shape and direct one's behaviour (Bandura, 1997a; 1986; 1989 cited in Stone, 1998). It is the ability to form these expectations that gives humans the capacity to predict the outcomes of their behaviour, even before it is performed. The behaviour that is carried out will then affect one's thoughts and emotions.

A bi-directional interaction also occurs between the *environment* and *personal* characteristics. In this process human belief, expectations and cognitive abilities are developed and modified by physical structures and social influences within the environment (Bandura, 1977a; 1986; 1989, cited in Stone, 1998). These social structures convey information and activate emotional reactions through modeling, instruction, and social persuasion (Bandura, 1986 cited in Stone, 1998).

The final interaction takes place between *behaviour* and the *environment* and assumes that people are both products as well as producers of their environments. Based on learned human competencies and preferences, humans select whom they interact with and the activities they engage in. Human behaviour also influences the environment, as the behaviour determines which of the potential environmental influences come into play and which forms they will take. The environment partly determines which forms of individual behaviour are developed and activated (Bandura, 1977a; 1986; 1989 cited in Stone, 1998).


Young people need to learn how to be sexually responsible and accountable and make safer sexual choices. Therefore greatly emphasized in the social cognitive theory is the importance of skills *self-regulation* and *self-efficacy* (the judgment that one has the ability to perform a given behaviour) (Bandura, 1999). An individual's self-efficacy can develop as a result of their history of achievement in a particular area, through observational learning of others successes and failures, from persuasion of others, as well as from one's own physiological state (e.g. anxiety or emotional arousal) whilst performing a behaviour.

Difficulties can arise in following safer sex practices as self-protection often conflicts with interpersonal and social pressures. The best informed judgment can be swayed by influences such as a desire for social acceptance, situational constraints, coercive threats, fear of rejection etc (Bandura, 1994). Studies have shown that women have the lowest assurance in their ability to exercise control over pressures by a desirable partner to engage in unprotected sex, which places them at potential risk of HIV infection (Kasen, Vaughan & Walter, 1992 cited in Bandura 1994). Bandura (1994) notes that the weaker one's *perceived self-efficacy*, the more such social and affective factors increase the likelihood of risky sexual behaviour.

According to Bandura (1997) beliefs of personal efficacy (or perceived self-efficacy) is the central foundation of human agency. He notes that unless people believe that they are capable of producing desired efforts by their actions, they will have little

incentive to act or persevere in the face of difficulties. Desired outcomes have been shown to affect: whether people consider changing their behaviour; the degree of effort they invest in changing; and the long-term maintenance of behavioral changes (Bandura, 1999).

Recent studies suggest that perceived self-efficacy is important in substance abuse and HIV risk behaviour *change* (Bandura, 1994; 1999). This model proposes that health-protective behaviour results from a process of cognitive appraisal that integrates knowledge, outcome expectancies that is associated with adopting risk-reduction behavior, as well as social influences (Bandura, 1986 cited in La Brie, Schiffman & Earleywine, 2002). He emphasizes four major components necessary for effective programs of *change* aimed at altering each of the three above-mentioned interacting determinants (Bandura, 1994).

- 
- (a) Informational – designed to increase people’s awareness and knowledge of risks
 - (b) Development of social and self-regulative skills
 - (c) Skill enhancement and development of self-efficacy (or confidence in one’s ability)
 - (d) Enlisting and creating social supports for desired personal changes (Bandura, 1994).

Important in managing one’s sexuality, people have to exercise influence over themselves and others by means of *self-regulatory skills*. Self-regulation motivates and guides one’s actions through internal standards, affective reactions to one’s conduct, and the use of motivating self-incentives and other forms of cognitive guidance (Bandura, 1986; 1991b cited in Bandura 1994). Self-regulatory skills therefore form an essential part of risk-reduction processes and how effectively one is able to resist socially induced potentially risky behaviour.

Efficacy beliefs, coupled with goal aspirations, incentives and disincentives rooted in outcome expectations, serve to operate as a major cognitive motivator and

regulator of behaviour. It is widely accepted that personal change occurs within a network of social influences that could serve to aid, retard or undermine efforts at personal change. Social cognitive theory therefore also extends the conception of human agency to a collective agency needed to accomplish necessary social goals. Because substance abuse and HIV/AIDS is a social problem (and not just a personal one), peoples' shared beliefs in their efficacy to improve their life circumstances, through unified social effort, is crucial for effective intervention processes (Bandura 1997, cited in Bandura 1999).

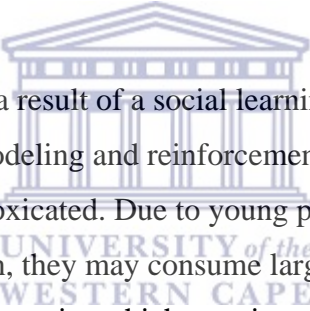
A summary of the key concepts of Social Cognitive Theory and its functions in young people's alcohol/sexual behaviors as discussed in Bandura (1999).

:

- a) *Expectations*- individual's beliefs about likely results of actions (such as condom use protecting them from sexually transmitted diseases).
- b) *Observational learning*- youth observe modeling of abstinence method or modeling of how to effectively use a condom.
- c) *Behavioural capability*- knowledge and skills needed to influence behaviour (could provide information and training)
- d) *Self-efficacy*- need to have confidence in ability to take action. (Could bring about behavioral change by using persuasion and encouragement and pointing out strengths.)
- e) *Reciprocal determinism*- change becomes bi-directional as it involves the individual and relevant others. (Teens now work to change the environment e.g. starts promoting abstinence or condom usage etc.)
- f) *Reinforcement*- responses to behaviour that either increases or decreases the chances of recurrence. (Could provide praise /incentives etc that would encourage positive associations connected with new behaviour.)

2.3.3 ALCOHOL EXPECTANCY THEORY

Alcohol expectancies are defined as “the expected effects of drinking alcohol”. According to alcohol expectancy theory (Goldman et al., 1987 cited in Korn & Maggs, 2004) the cognitive processes that occur before a person drinks play an integral role as to whether the individual will choose to drink, as well as how much alcohol will be consumed. The model posits that an individual’s behaviour after drinking is driven by pre-existing beliefs about alcohol’s effect on behavior, in a sort of “self-fulfilling prophecy” (Lang, 1985 cited in Cooper, 2002). People generally view alcohol as enhancing and disinhibiting sexual feelings and behavior, and might consume alcohol to enhance sexual activities. They experience this as true for self and others, although alcohol consumption might not truly *cause* these sexual changes.



Alcohol expectancies arise as a result of a social learning process where individuals learn through interpersonal modeling and reinforcement, *perceived* appropriate behaviour to display when intoxicated. Due to young people’s relative inexperience and their need for disinhibition, they may consume large amounts of alcohol based on preconceived alcohol expectancies which may increase their risk of possible HIV infection (Morris & Albery, 2001). Therefore teenagers who believe that alcohol promotes risky sexual behaviour would be more likely to engage in risky sexual behaviour than those who do not hold these beliefs of having consumed alcohol (Derman, Cooper & Agotcha, 1998).

A recent laboratory study compellingly supports this view. Participants who had believed that they have consumed alcohol (although none had been consumed), reported greater sexual arousal, and perceived their interaction partners as more sexually disinhibited, only if they also held strong beliefs about alcohol’s ability both to disinhibit, as well as enhance sexual activity. (George et al., 2000 cited in Cooper, 2002). The mere belief then that alcohol had been consumed activated pre-

existing beliefs about alcohol's effect and generated feelings, cognitions and behaviours according to these beliefs.

The general effects of alcohol can be explained through the process of Bandura's (1986) Social Cognitive theory. The model proposes that health protective behaviour results from a process of cognitive appraisal that integrates knowledge, outcome expectancies pertaining to risk-deduction behaviour as well as social influences involved (LaBrie et al., 2002). Past drinking experiences help form alcohol expectancies as persons store relative specific memories of prior experience and learning about alcohol's effect on their behaviour (Golman 1994; Vogel-Sprott & Fillmore, 1999 cited in LaBrie et al., 2002). Expectancy therefore impacts post-drinking behaviour as this specific stored information is activated on subsequent drinking occasions.

In theory, the presence of alcohol causes the activation, and once activated, it influences thoughts, interpretations, intentions, decisions and ultimately, behaviours (Stacy, 1997 cited in LaBrie et al., 2002). This model therefore indicates that the strength and nature of individually held beliefs about the effects of alcohol could *moderate* the acute effects of alcohol on sexual risk-taking. The main focus of this theory is the value attached to adopting a particular belief, and the expectancy regarding the desired outcomes. Alcohol expectancies are therefore important determinants of drinking, and of sexual outcomes that follow drinking (George & Stoner, 2000). The expectancy aspect is important as it represents a potentially causative scenario in that "believers" seek alcohol in anticipation of sexual encounters, and after drinking, they behave according to their beliefs (George & Stoner, 2000). This model seems to account well for post-drinking sexual perceptions and reactions.

2.3.4 ALCOHOL MYOPIA THEORY

Alcohol myopia theory is based on the belief that alcohol disinhibits behaviour as a result of its pharmacological effects on information processing. It therefore proposes an attention allocation model in which alcohol interferes with information processing, in such a manner as to disrupt the ability to allocate attention to multiple aspects of a situation effectively. Alcohol thus creates a “myopic” (or narrowing) effect on attention, which results in attention being allocated only to the most salient aspects of a particular situation, and not to other less salient cues (Cooper, 2002).

It is based on evidence that alcohol impairs attention, cognition, and information processing (George & Norris, 1991). For example, simple and high salient cues that instigate behaviour such as sexual arousal continue to be processed, and complex and more distal cues that would usually inhibit behaviour (e.g. the possibility of contracting HIV/AIDS), are no longer adequately processed. (Steele & Josephs, 1990 cited in Cooper, 2002)

Alcohol therefore has its strongest effects, when behaviour is controlled by instigatory or inhibitory cues that are both strong and nearly equal in force. For instance, when instigatory cues are strong and inhibitory cues weak, the behaviour is *likely* to take place regardless of individual’s sobriety. (The other way around, the behaviour is unlikely to occur). It is only in situations where both sets of cues are strong that the reduced processing of inhibitory cues (as a result of having taken alcohol), result into different or more extreme social behaviour (Steele & Josephs, 1990 cited in Cooper, 2002).

Theoretically, alcohol myopia restricts intoxicated persons from recognizing or responding to the relevant cues in the environment when faced with whether to have protected or unprotected sex. Alcohol leads people to behave in a more restrained or impulsive manner depending on which cue is more salient or impelling (e.g. the

possibility of sexual intercourse in conflict with the possibility of contracting a disease).

This model affords a simplified account that appears versatile and rather straightforward. Another advantage of this model is that it would extend to situations involving higher doses of alcohol, as greater intoxication would lead to greater disinhibition (George & Norris, 1991). George & Stoner (2000) notes that the myopia model seems to be paving the way forward for future research.

In the following section, studies (guided by the two most direct theoretical explanations, *alcohol expectancy* and *alcohol myopia theory*, will be discussed to establish the link between alcohol and sexual behaviour. George & Stoner (2000) describes and evaluates the scientific evidences about whether alcohol intoxication has a *causal* impact on sexual behaviour and outcomes in the light of the alcohol expectancy *and* alcohol myopia theories. Herewith follows a summary of the authors' evaluations and other studies confirming these findings. Understanding how these theories link will aid in planning meaningful interventions that capitalizes on theory.



2.4 INTERRELATEDNESS OF ALCOHOL EXPECTANCY AND ALCOHOL MYOPIA THEORIES

Evidence in other studies suggests that both expectancy, *and* cue effects operate in real-world situations. Researchers examined the effects of alcohol on condom use for three different occasions of intercourse (first ever, most recent first, and last). Drinking was associated with lower rates of condom use at first intercourse among those who both *believed* that alcohol use increases sexual risk-taking and were *highly conflicted* about condom use on that occasion. Expectancies alone were found to moderate alcohol effects on second occasion, and conflict alone moderated it on the final occasion (Derman & Cooper, 2000 cited in Cooper, 2002). It would mean

that alcohol effects on sexual risk taking are likely conditional upon individually held beliefs, situation-specific contingencies controlling the behaviour, *or a combination of the two*.

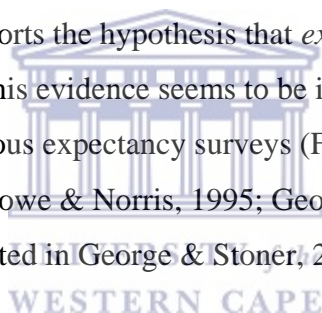
2.4.1 ALCOHOL EXPECTANCY RESEARCH STUDIES

Individual expectations were found to play an important role in how alcohol impacts on behaviour. Subjectively, sexual arousal is affected not only by blood alcohol concentration, but also by a person's *beliefs* (or expectancies) about the relationship between alcohol and sex (George & Norris, 1991). The expected effects of drinking alcohol as important determinants on sexual outcomes, was first argued scientifically when found that alcohol's influence was *not entirely* due to its pharmacological processes as previously thought. This conclusion was derived by experiments that showed that the mere belief that alcohol was consumed, was sufficient to 'disinhibit' sexual responding (Brown, Goldman, Inn & Anderson, 1980; Southwick, Steele, Marlatt & Lindell, 1981; Wilson & Lawson, 1976b cited in George & Stoner, 2000). Based on the above-mentioned studies in order to actually confer *causality*, alcohol expectancy required to be considered in experimentation on alcohol and sexual behavior.

It had to be proved that *manipulating* expectancies about alcohol's effect, actually *alters* alcohol-related behaviour. A series of placebo type studies found this to be so (Fillmore, Mulvihill & Vogel-Sprott, 1994; Fillmore & Vogel-Sprott, 1992 cited in LaBrie, et al., 2002). (The altered performance could be explained by "new" expectancies). Vogel-Sprott & Fillmore (1999) noted that interpersonal as well as inter-situational differences in expectancies help account for *differences* in responses that could not otherwise be explained by pharmacological action (La Brie, et al., 2002).

Consistent with this idea George, Stoner, Norris, Lopez and Lehman (2000), found that expectancy enhancement had an effect on arousal as high believers in the “alcohol-stimulates-sex expectancy” reported more sexual arousal than did low believers. In the same study, convinced that alcohol had been consumed (when in fact none was), participants responded higher on sexual indices that confirmed the participants believed the beverage manipulation (George & Stoner, 2002). Besides being convinced that they themselves has drank, they were also convinced that their female counterparts had drunk. They then rated the “drinking” females as being more sexually disinhibited than the non-drinking females. Because they believed that their targets had drank and rated them more sexual, they must have expected that alcohol heightens sexual responding and perceived targets accordingly (George & Stoner, 2002).

Empirical evidence thus supports the hypothesis that *expectancies* serve to *mediate* alcohol-related behaviour. This evidence seems to be in line with the “alcohol-stimulates-sex” belief of various expectancy surveys (Fromme, Stroot & Kaplan, 1993; George, Cue, Lopez Crowe & Norris, 1995; George, Derman & Nochajski, 1989; Leigh & Stacy, 1993 cited in George & Stoner, 2000).



2.4.2 ALCOHOL MYOPIA RESEARCH STUDIES

Alcohol myopia theory builds on well-established scientific observation that alcohol impairs cognitive processing of information and embraces the *reality* of physiological mechanism of explanation (George & Stoner, 2000). This approach assumes that the acute effects of alcohol intoxication, *causes* one to take sexual risks that you would *not* have taken otherwise. When experiencing *competing* urges to engage versus not engage in a desirable sexual behaviour, alcohol will promote engagement. It does this by muting awareness of inhibitions, thereby tunneling one’s vision toward desirable urges.

Three independent teams and 11 separate experiments (including both laboratory and field studies), have provided *clear evidence of causal linkages* between alcohol and risky sex (Gordon & Carey, 1996; Gordon, Carey & Carey, 1997; Fisher & Fisher, 1992; Fromme, D'Amico & Katz 1999; MacDonald, Zanna & Fong 1996; MacDonald, Zanna & Fong, 2000; Murphy, Monahan & Miller, 1998; cited in George & Stoner, 2000). Aspects of the data from each research team were consistent with interpretations from Steele's inhibitory conflict or alcohol myopia model. These studies were considered to be feasible for credible laboratory experimentation deemed capable of advancing theory-driven causal analysis about the effects of alcohol on risky sexual behaviour (George & Stoner, 2000).

Findings from several studies indirectly support this argument (Fortenberry, 1995; MacDonald, Fong, Zanna & Martineau, 2000; Robertson & Plant, 1988 cited in Morris & Albery, 2001). These findings have suggested that people who have not planned intercourse and who drink prior to intercourse, are more likely *not* to take self-protective measures. Those who have planned intercourse are more likely to attend to the inhibiting cues and continue to attend to the sexual risks involved (Fortenberry, 1995 cited in Morris & Albery, 2001). More direct support is provided by Gordon & Carey (1996) where findings showed that participants who consumed alcohol, reported increased concern about reduced pleasure and increased embarrassment about negotiating condom use, and were less concerned about the self-protective advantages of condom use (Morris & Albery, 2001). These finding suggests that drinking alcohol may have a causal effect on sexual decision-making, and that expectancies effects *alone* cannot account for this causal explanation.

2.4.3 SUMMARY OF INTERRELATIONSHIP OF THESE TWO THEORIES

Although these two widely held models appear to offer opposing accounts for the drinking/risky sex relationship, empirical evidence supports both. The expectancy

aspect of drinking is very important as the experimental evidence show that the expectancy set (i.e., the belief that one has consumed alcohol), exerts a powerful effect on the participant's behaviour (George & Stoner, 2000). Alcohol myopia on the other hand, emphasizes the importance of *actual* alcohol content over expectancy set. The myopia model therefore embraces the *reality* of physiological impairment. George and Stoner (2002) therefore argues that the power of expectancy analysis *alone* to satisfactorily explain sexual behaviour will somehow remain limited as it seem to only apply to sexual perceptions immediately after drinking.

Steele and Josephs (1990) acknowledges that *inhibition conflict* may be difficult to judge, where there is limited information about the disposition of the actors and the circumstances of the encounter. As a result, it can become difficult to establish whether decision-making cues is derived from information from alcohol expectancies, expectancies specific to sexually-related outcomes, *or the myopic effects* that alcohol consumption brings (Morris & Albery, 2001).

In Gordon, Carey & Carey (1997) study for alcohol expectancies in a placebo condition, people who advocated more risky negative attitudes towards condom use held relatively stronger beliefs that alcohol disinhibited them sexually. In contrast, participants who did *not expect* alcohol to affect them sexually (even after consuming alcohol), maintained favourable condom attitudes. Hence, people who perceive more intoxication *and* hold beliefs about sexual disinhibition after drinking may be particularly unmotivated for condom use (Gordon, et al., 1997 cited in Morris & Albery, 2001).

These findings therefore highlight the *dynamic relationship* between alcohol expectancies and alcohol myopia theories for explaining sex-related decision-making processes. In seeking to understand the dynamics of sexual decision-making it becomes clear that alcohol consumption leads to *limitations* in the cognitive processing necessary for efficient sexual decision-making, and that alcohol outcome expectancies serve to *guide* those behavioral decisions.

Alcohol and sexuality are closely linked in many cultures, and alcohol effects on sexual arousal are complex. As described, it is divisible into pharmacological (content) verses psychological (expectancy) effects. The inter-active nature of alcohol expectancies and alcohol myopia approaches *more reliably* reflect sexual decision-making processes. Since alcohol expectancies primarily influence decision-making for risk-taking behaviour, and alcohol myopia is important for the decision-making process after consuming alcohol, an *integration of these two approaches* offer a more comprehensive account of the role of alcohol in sexual decision-making.

2.5 CONCLUSION

The reviewed literature of alcohol/unsafe sex hypothesis reveals conflicting reports. Drinking was strongly related to having multiple or casual partners, but was inconsistently related to protective behaviour such as condom use (Cooper, 2002). Studies who have examined adolescents (Visser, 2003) and college-aged samples (MacDonald, Zanna, & Fong, 1996) tended to show evidence to support this hypothesis.

As it would be unrealistic to propose a single cause of the existing phenomenon, the complex relationship of drinking and risky sex was explained through environmental (problem-behaviour), cultural (social cognitive), psychological (alcohol expectancy), and pharmacological (alcohol myopia) factors in research and theory.

CHAPTER 3

METHODOLOGY

INTRODUCTION

This chapter contains an overview of the original study that generated the data set that was used by this study. The overall aim of the original study was to provide the university community with information to understand students' lifestyles in order to implement interventions where necessary and appropriate.

For capacity building purposes, Masters students from the Social Work Department were encouraged to become involved in the project and to use the project for their own thesis or mini-thesis as part of their degree requirements. The present study is the first to use a section of the database (the 17-25 year age group) generated by the original study for research purposes.

The first section of the chapter will include the sample selection, instrumentation, validity and reliability, and procedures employed for collecting the data for the original study. Ethical considerations taken in the study is also outlined. What follows in the second section is a detailed description of the methodology used in the present study. The data analysis section will describe the statistics used in the data analysis for this study.

3.1 ORIGINAL STUDY

3.1.1 SAMPLE SELECTION

Permission to conduct this research study was obtained from *University's senate Research Committee and Student Affairs Registrar* (see **Appendix A**). Following the approval, a sample was drawn from the students enrolled at the University of the Western Cape. A total of **2224** was required to get a representative sample across faculty and year level (see **Appendix B**). The sample was selected from both under- and post-graduate students in any of various faculties at the university. This process was accomplished with the assistance of the Assistant Registrar (Mr. Vincent Morta) who gave us access to the university's student database. Every student at each year level and faculty had an equal chance of participating in the study. Due to the interest the number of students who completed the survey amounted to **2288**.



3.1.2 INSTRUMENTATION

The instrument is a self-report questionnaire (see **Appendix C**). The **STUDENT LIFESTYLE QUESTIONNAIRE**- a self-administered questionnaire took approximately 15-20 minutes to complete. A pilot study was carried out on 10 students in order to pre-test the questionnaire. In response to feedback from the subjects some modifications to the questionnaire were made.

3.1.3 RELIABILITY AND VALIDITY

Statements used in the **Student Lifestyle Survey** were based on similar questions used in other studies elsewhere. Questions were drawn from three sources: *The Screening and Assessment for Alcohol and other Drug Abuse Amongst Adults in the*

Criminal Justice System (U.S. Department of Health and Human Services, 1994), *Student Health Survey* (Valentine, Wright and Henley, 2003), and *Questionnaire for Assessing Knowledge and Practice of Safe Sex amongst Rhodes University Students* (Simpson, 1996).

All above-mentioned instruments have been used in the public domain and have established reliability from .83 to .95. Validation studies have yielded a 78 percent agreement.

3.1.4 DATA COLLECTION PROCEDURE

The data collection was completed in two phases, which are described below:

Phase I: Notification of study to UWC community and training of research assistants

An electronic letter was sent to all academic staff informing them of the study and requesting permission from the relevant department heads and lecturers for the research assistants to administer the questionnaire in their lecture rooms. As it required fifteen to twenty minutes of the students' time to complete the questionnaire, lecturers were asked to allow research assistants a few minutes at the end of the lecture period in which to address the students. The students who then volunteered, would remain behind and complete the questionnaire, thereby reducing the amount of lecture time used.

Seven research assistants were each assigned a faculty in which to administer the questionnaire. Before the administration however, the research assistants underwent a three-hour training session, which included:

- a) procedure for administering the questionnaire (see **Appendix D**)

- b) ethical issues involved in the administration of the questionnaire to the student population, e.g. the anonymity of the participants, the voluntary participation of the students
- c) familiarization with the content of the questionnaire

Potential problems that the assistants might encounter, such as reluctance of lecturers to have the questionnaire administered in their classes and student apathy regarding the importance of the study, were addressed. Possible solutions were provided in the event of problems occurring to ensure the smooth running of the data collection. Because the participation of the students in the study was completely voluntary, it was imperative that the research assistants conveyed this to the students, though stressing the importance of the study to encourage their participation. Each research assistant was provided with copies of the letter of consent from the University Research Ethics Committee to conduct the study with the university student population.

Phase II: Administration of the questionnaire

Each research assistant received a list of the seven faculties as well as their respective year level quotas that they were required to complete. Although each assistant were given the option of choosing the faculty in which they preferred to collect the data, they were nevertheless required to assist in other faculties if a research assistant encountered difficulty in administering the questionnaire due to large class numbers or clashes with timetables. In this way the research assistants deployed within faculties where the student enrolment was low, could assist in faculties where the student enrolment was higher.

Initially, a roster was drawn up in order to expedite the data collection process, but this proved to be an arduous task as each faculty operated on a different structure and the research assistants had to decipher the particular structure of each faculty. For example, the Economic and Management Sciences faculty had students registered according to enrolment, which included the first until seventh level of

enrolment and included full- and part-time students, and not year level. In addition, lectures did not all run strictly according to their specific timetables. This meant that appointments had to be arranged with each lecturer before proceeding to the class venues to obtain permission and to verify class times and venues.

After the implementation of a batch of questionnaires, the research assistants were required to complete a control form with full details of how and where survey was conducted. The questionnaires were then numbered and the corresponding questionnaire numbers were entered on the control forms. The research assistants also included any additional information relating to the administration of the questionnaire and the problems they encountered on the control sheets.

3.1.5 ETHICAL CONSIDERATIONS

Ethical concerns particularly when dealing with sensitive research topics always provide their own limitations. Traditionally the dictum of *primum non nocere* or “above else do no harm” (Simpson, 1996) together with respect for the individual autonomy and privacy have provided their own difficulties for the researchers. In an attempt to overcome such problems, it was stressed that no identifying details be provided by the students and that they were informed that only aggregated data would be analyzed and presented and not individual responses.

Participation in the study was voluntary and ethical clearance from Senate Research Committee and permission from Student Affairs Registrar were granted (**see Appendix A**).

3.2 PRESENT STUDY

3.2.1 INTRODUCTION

The present study used a section of the database generated by the original study. This section is a detailed outline of the present study and areas outlined are the research setting, sample, and analysis employed in the study.

3.2.2 RESEARCH SETTING

Founded in 1960 as a separate university for the “Coloured” population, UWC became known in the 1970’s and 1980’s for its brave stand in the liberation struggle. Today UWC has celebrated its 44th birthday and is a major national university that is proud to be alert to its African and international context.

The institution has seven faculties: Arts, Community and Health Sciences, Dentistry, Economic and Management Sciences, Education, Law, and Natural Sciences. Its reputation as a popular destination is confirmed by having more than 14000 students enrolled, and hosting more and more international students from Europe, Asia and North America and many more from parts of Africa.

UWC’s rich cultural diversity is reflected in the Student Profile Summary for 2003 showing registration by Population Group as 38.4% African; 48.9% Coloured; 6.3% Indian; 2.7% White; 3.8% Other. The gender distribution reflected 43.4% male, and 56.6% female students (UWC Prospectus, 2003/4).

3.2.3 SAMPLE

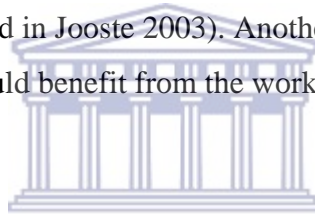
The size of the sample for this study was 1837 students. These were the number of students in the 17 – 25 year-old age group. This group comprised of 34% ($n = 625$)

males, and 66% ($n = 1215$) females. (This gender breakdown seems to be representative of the university's overall enrollment of 43% males, and 57% females.) Ninety five percent of the sample is South African students, and 73% has permanent residence in the Western Cape.

3.2.4 PROCEDURE

As described, this study used a section of the data obtained from the baseline study, to form part of its primary analysis.

The advantage of this method is that it is time and cost effective and optimizes the use of scarce public resources as findings are much more rapidly generated by such - analysis (Rockwall, 1998 cited in Jooste 2003). Another advantage is that inexperienced researchers could benefit from the work of more experienced researchers.



Noted disadvantages of this method is that insufficient information can be reported about the collection of the data to hide possible biases in them, and that one cannot correct mistakes made in the design of instruments or the collection of data (Jooste, 2003).

3.2.5 DATA ANALYSIS

The data was analyzed using Statistical Package for the Social Sciences (SPSS). The statistical techniques included descriptive statistics, cross-tabulation and chi-square test. All procedures were performed at 0.05 level of significance with 95% Confidence Interval.

Participants' responses were categorized and coded and examined in the form of frequencies of occurrences and percentages. Descriptive analyses were provided. For some research questions however, cross-tabulations were employed in addition to descriptive statistics.

Where relevant, the chi-square test was also used in conjunction with the cross-tabulations. These cross-tabulations were used to answer the question whether there is a relationship between more than one variable. The test of *statistical significance* allows a researcher to discover how much the observed and expected frequencies differ from one another (Pretorius, 1995 cited in Jooste, 2003).

The researcher addressed the following Research Questions using cross-tabulations and chi-square analysis.

1. Are students who are more frequent drinkers more likely to have multiple partners?
2. Are students who drink alcohol *less likely* to use condoms?
Will investigate:
 - a) Alcohol use *before sex* and condom use with **primary partner** in the last 12 months.
 - b) *Frequency of alcohol use* and condom use with primary partner in the last 12 months.
 - c) *Alcohol use before sex* and condom use with **non-primary partner(s)** in the last 12 months.
 - d) *Frequency of alcohol use* and condom use with primary partner(s) in the last 12 months.
3. Are male students more likely to use alcohol before sexual activity than females?

In addition to the above research questions, descriptive analysis will be employed to determine student's perception regarding unplanned sex, likelihood of alcohol/unsafe sex, and measures taken to reduce HIV risk practices.

This chapter gave a summary of the data collection procedure as well as a detailed description of the methodology used in this study. The data analysis techniques were described and in the following chapter the results for above-mentioned research questions will be presented



CHAPTER 4

RESULTS

INTRODUCTION

In this chapter the results of the study is presented. Descriptive results from variables such as alcohol consumption, unplanned sex, and number of sexual partners, condom use, as well as HIV risk reduction measures taken, are presented. The results aim to answer the main research question of the extent of the link between students' alcohol use and unsafe sex practices such as unplanned and unprotected sex, and multiple partners in this HIV/AIDS era.

As noted in the methodology chapter, quantitative analytic procedures were used on the information obtained from the survey questionnaires. The results for each relevant item are presented separately and are expressed in terms of percentages and frequencies to provide a clear picture of numbers and proportion. In some instances the results are expressed in the form of tables and charts, and some cross-tabulations and chi-square tests that were performed, are also reported. (As mentioned for the baseline study, the computed chi-square value was determined to be significant at the **0.05 level** of statistical significance and procedures were performed at 95% confidence level.)

4.1 SAMPLE CHARACTERISTICS

4.1.1 BRIEF DESCRIPTION OF ORIGINAL SAMPLE

Of the 2288 students who participated in the baseline study, the majority (80% $n = 1837$) was 17 to 25 year-olds. Furthermore, although 1837 students in this age group completed the questionnaire, less than half (42% $n = 777$) reported being sexually active during the last 12 months. *All analyses in this study are therefore based on the 777 respondents in this age group who reported being sexually active.*

4.1.2 DESCRIPTION OF STUDENTS USED IN PRESENT STUDY

All (777) sexually active subjects in this study were UWC students between the ages of 17 and 25 years (Figure 1). The majority (60% $n = 466$) of respondents were female, and 40% (311) represented the male population (Figure 2). Ninety six percent were full-time students (Figure 3). Almost 40% of students were in their first year of study (Figure 4) and the majority (55%) lived with parents/relatives (Figure 5). The majority of the sample (94%) was South African students (Figure 6).

Most of the students (91% males; 97% females) reported that they were heterosexual (Table1). The majority of the South African subjects (68%) were from the Western Cape, with the next largest proportion (19%) being from the Eastern Cape. The other areas of permanent residence were poorly represented (Figure 7). Forty percent of the sample were English speaking, 25% Xhosa speaking, with the next largest proportion (3.6%) being Tswana speaking students (Figure 8).

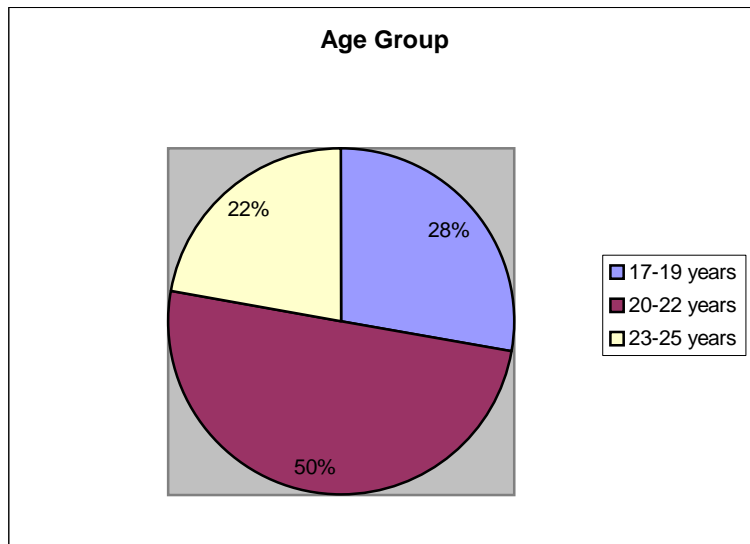


Figure 1 Respondents differentiated on the basis of age.

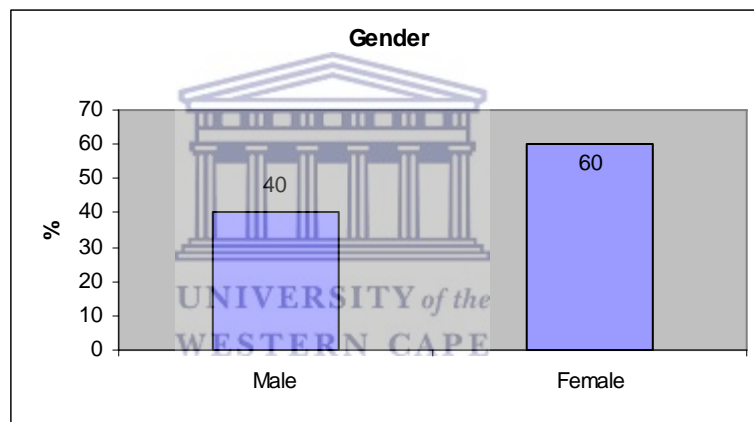


Figure 2 Respondents differentiated on the basis of gender.

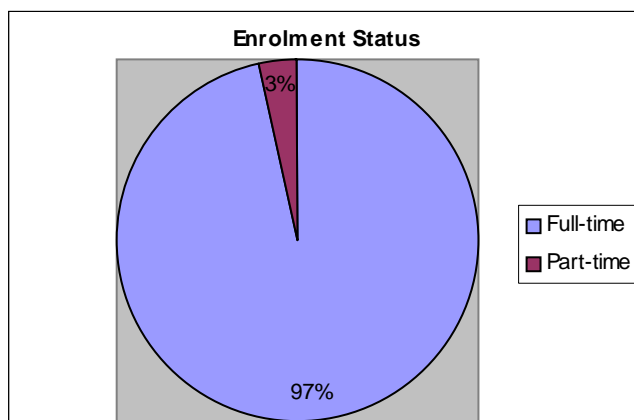


Figure 3 Respondents differentiated on the basis of enrollment

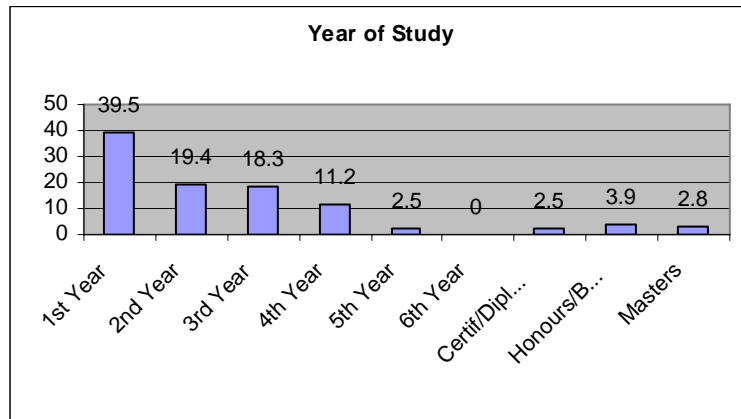


Figure 4 Respondents differentiated on the basis of year/level of study.

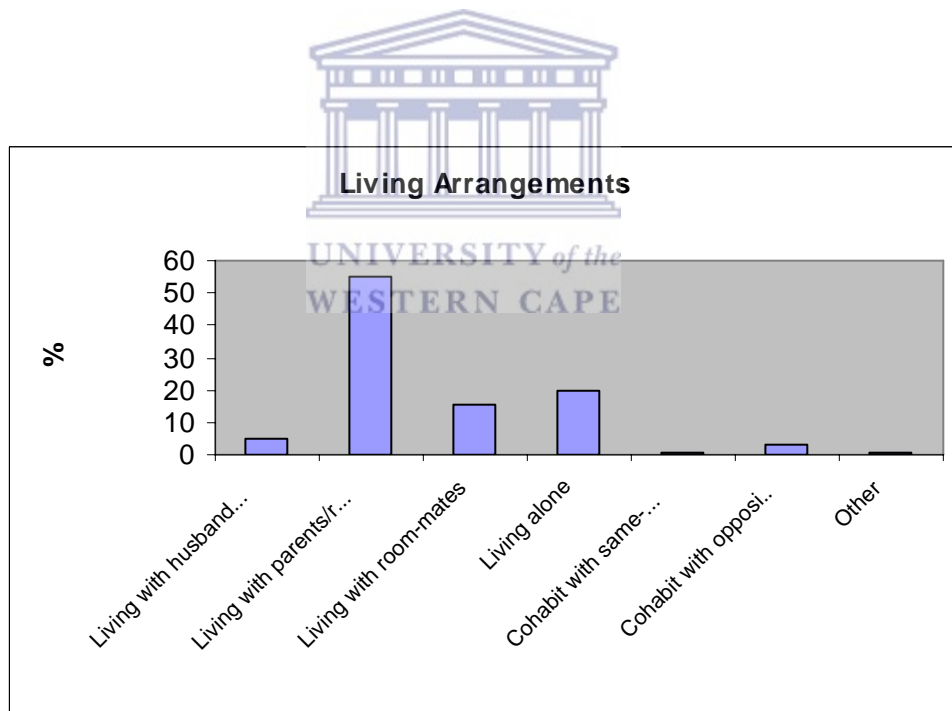


Figure 5 Respondents differentiated on the basis of living arrangements.

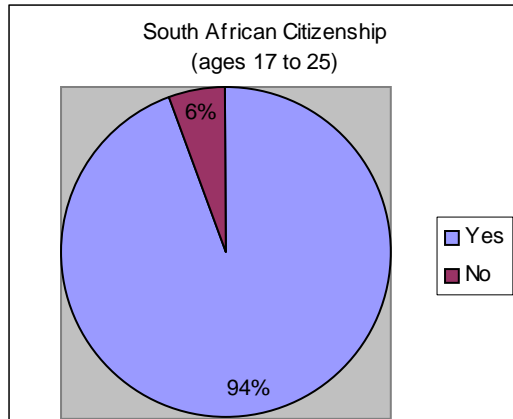


Figure 6 Respondents differentiated on the basis of citizenship

SEXUAL ORIENTATION



Women only Men only Both men and women

		%	%	%
Male	Male 17-19 years	92.5	5.4	2.2
	Male 20-22 years	91.7	5.5	2.8
	Male 23-25 years	85	12.7	1.4
	Male Total	90.6	7.1	2.3
Female	17-19 years	1.6	96.7	1.6
	20-22 years	2.1	96.3	1.7
	23-25 years	2	97	1
	Total	1.9	96.6	1.5

Table 1 Sexual preference

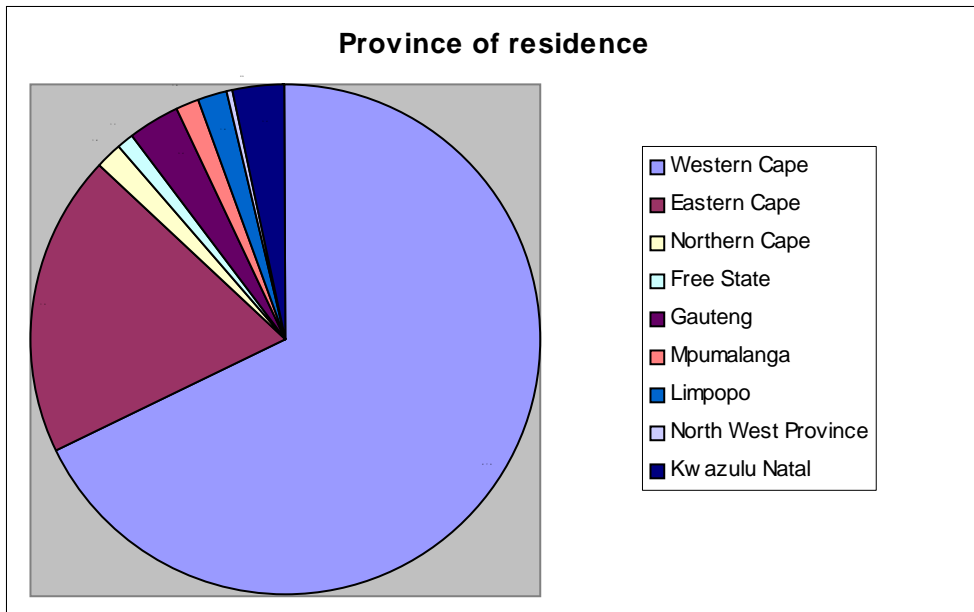


Figure 7 Respondents differentiated on the basis of residential area.

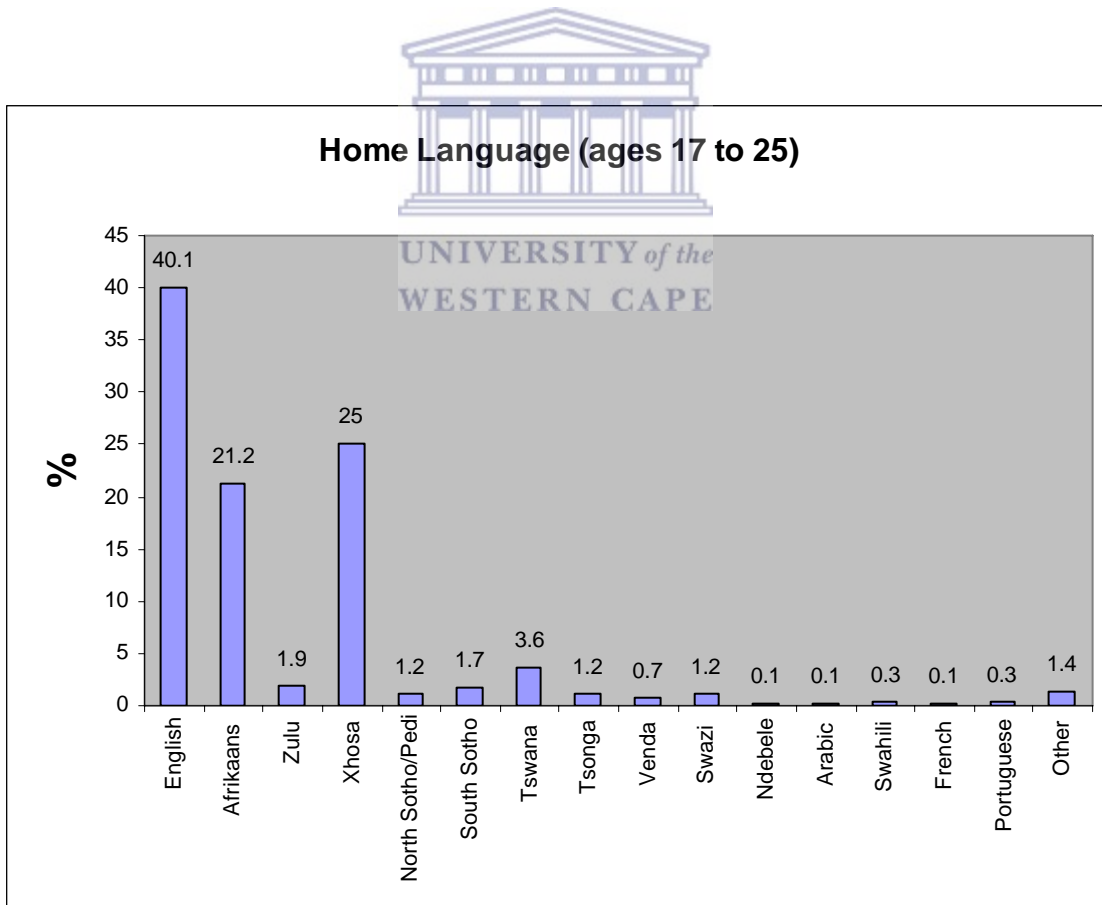


Figure 8 Respondents differentiated on the basis of home language.

4.2 ALCOHOL USE

4.2.1 FREQUENCY OF ALCOHOL USE

Of the 777 students who were sexually active, 64% reported drinking alcohol to some extent or the other. The trend for the student population in this age group (17-25 years) indicates that 79% of females and 64% of males are less frequent alcohol drinkers (those who rarely drink *and* who drink once or twice a month). The results show that a greater proportion of men report drinking frequently (once or twice a week), and that a higher percentage of females report drinking rarely than their male counterparts (see Table 1).

Table 1: Frequency of Alcohol Usage by Age and Gender

		Everyday		Once or twice a week		Once or twice a month only		Rarely	
		N	%	N	%	N	%	N	%
Male	17-19 years	1	1.5	17	25	31	45.6	19	27.9
	20-22 years	1	0.9	42	38.9	46	42.6	19	17.6
	23-25 years	0	0	21	40.4	19	36.5	12	23.1
	Total	2	0.88	80	35.1	96	42.1	50	21.9
Female	17-19 years	1	1.3	17	21.5	25	31.7	36	45.6
	20-22 years	2	1.4	19	13.6	67	47.9	52	37.1
	23-25 years	1	1.9	15	27.8	20	37	18	33.3
	Total	4	1.5	51	18.7	112	41	106	38.8

4.2.2 FREQUENCY OF ALCOHOL USE BEFORE SEX

The results show that very few students (males 17%; females 8%) use alcohol before sex *always* or *more than half the time*. Whilst the majority of students (males 83%; females 92%) indulge therein less than half the time or never, significantly *more males* than females overall report consumption thereof, with more females than males *never* using alcohol before sexual activity (see Table 2).

Table 2: Frequency of alcohol use *before sex* by age and gender.

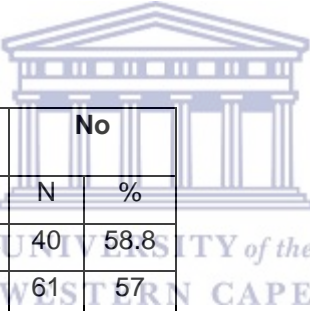
		Always		More than half the time		Less than half the time		Never	
		N	%	N	%	N	%	N	%
Male	17-19 years	1	1.5	7	10.3	26	38.2	34	50
	20-22 years	7	6.5	13	12.2	49	45.8	38	35.5
	23-25 years	1	1.9	9	17.3	23	44.2	19	36.5
	Total	9	4	29	12.8	98	43.2	91	40.1
Female	17-19 years	3	3.8	3	3.8	17	21.5	56	70.9
	20-22 years	1	0.7	10	7.2	56	40.3	72	51.8
	23-25 years	0	0	5	9.3	20	37	29	53.7
	Total	4	1.5	18	6.6	93	34.2	157	57.7

4.2.3 UNPLANNED SEXUAL ACTIVITY DUE TO ALCOHOL USE

When asked whether they have ever engaged in sexual activity that they would *not* have engaged in when sober, 43% males and 18% of females answered in the positive. A significant 82% of females and 57% of males indicated that they did *not* engage in such sexual behaviour (Table 3).

The results show that just less than half of the males perceive themselves to having had sex they would not have indulged in if they had been sober. Much less females report similar behaviour.

Table 3: **Sexual activity while under the influence of alcohol by age and gender**



		Yes		No	
		N	%	N	%
Male	17-19 years	28	41.2	40	58.8
	20-22 years	46	43	61	57
	23-25 years	23	44.2	29	55.8
	Total	97	42.7	130	57.3
Female	17-19 years	17	21.5	62	78.5
	20-22 years	23	16.4	117	83.6
	23-25 years	8	14.8	46	85.2
	Total	48	17.6	225	82.4

4.2.4 LIKELIHOOD OF ALCOHOL/ UNSAFE SEXUAL BEHAVIOUR

Students were also asked whether they are more or less likely to engage in *unsafe sex* whilst using alcohol. Fifty five percent of both male and female respondents claimed that they are *less likely* to engage in that type of behaviour. Fourteen percent of females compared to 26% of males report being *more likely to*. More female than male respondents claimed that it made “no difference” (see Table 4).

Results indicate that just more than half the students (males and females) believe that they are less likely to engage in *unsafe sex* whilst under the influence of alcohol. (More males than females claim to be more likely to.)

Table 4: Likelihood of alcohol/unplanned sex by age and gender

		More Likely		Less Likely		No Difference	
		N	%	N	%	N	%
Male	17-19 years	14	21.5	38	58.5	13	20
	20-22 years	27	25	58	53.7	23	21.3
	23-25 years	18	36	27	54	5	10
	Total	59	26.5	123	55.2	41	18.4
Female	17-19 years	10	13	46	59.7	21	27.3
	20-22 years	22	16.4	72	53.7	40	29.9
	23-25 years	5	9.6	27	51.9	20	38.5
	Total	37	14.1	145	55.1	81	30.8

4.3 SEXUAL BEHAVIOUR

4.3.1 CURRENT NUMBER OF SEXUAL PARTNERS

The vast majority of students (66%) report currently having only one sexual partner. Overall only 13% of students report currently having *more than one sexual* partner and more than 20% report currently not being sexually active. More males (25%) than females (5%) report currently having more than one sexual partner with the majority reporting only one, and a significant amount (males 25%; females 18%) reporting current celibacy (Tables 5a and 5b).



Table 5a: Current number of sexual partners

	N	%
One sexual partner	511	66.3
More than one sexual partner	101	13.1
Do not currently have a partner	159	20.6
Total	771	100

CURRENT SEXUAL LIFESTYLE BY AGE AND GENDER

		Only one sexual partner		More than one sexual partner		No partner	
		N	%	N	%	N	%
Male	17-19 years	44	48.4	21	23.1	26	28.6
	20-22 years	74	50.7	36	24.7	36	46.2
	23-25 years	35	49.3	20	28.2	16	22.5
	Total	153	49.7	77	25	78	25.3
Female	17-19 years	90	73.2	8	6.5	25	20.3
	20-22 years	191	79.2	10	4.2	40	16.6
	23-25 years	77	77.8	6	6.1	16	16.2
	Total	358	77.3	24	5.2	81	17.5

UNIVERSITY of the
WESTERN CAPE

Table 5b: Current number of sexual partners by age and gender

4.3.2 SEXUAL ENCOUNTERS WITH PRIMARY PARTNERS

When asked about frequency of having sex with partners within the last 12 months, male and female respondents reported no significant differences. Overall a significantly low percentage of students (both males and females =10%) report to be frequently sexually active (about 4 times a month or 50 or more times during the last year). About 60% of males as well as females report sexual activity with a primary partner as under ten times during the last 12 months (Table 6).

Table 6: Sexual encounters with primary partners by age and gender

SEXUAL ENCOUNTERS WITH PRIMARY PARTNERS

		0 to 2 times		3 to 9 times		10 to 49 times		Fifty or more	
		N	%	N	%	N	%	N	%
Male	17-19 years	28	35.9	26	33.3	20	31.3	4	16.7
	20-22 years	27	27	29	29	30	30	14	14
	23-25 years	15	28.9	17	32.7	14	26.9	6	11.5
	Total	70	30.4	72	31.3	64	27.8	24	10.4
Female	17-19 years	32	34.4	38	40.9	20	21.5	3	3.2
	20-22 years	46	27.2	60	35.5	47	27.8	16	9.5
	23-25 years	24	34.3	21	30	12	17.1	13	18.6
	Total	102	30.7	119	35.8	79	23.8	32	9.6

4.3.3 SEXUAL PARTNERS VERSUS STUDENTS WHO DRINK BEFORE SEX

Significant differences were found for number of sexual partners between students who *never drank* before sex and those who *drank more frequently* (always and more than half the time = 12% only) before sexual intercourse. (“never” = .59% had no sexual partner, 18% had one, 23% had more than one partner versus “always and more than half the time” 31% (18) had no partner, 8% (5) had one, and 61% (36) had more than one partner). Of those who *always* used alcohol before sex (12 students only), three had no partners, one had one partner, and the rest (eight students) had more than one partner. (Table 8).

The results reflect that students who use alcohol before sexual intercourse more regularly have *more sexual partners* than those who use it less often, however these differences are not significant.

Table 8: Number of partners versus students who use alcohol before sex

	Always		More than half the time		Less than half the time		Never	
	N	%	N	%	N	%	N	%
None	3	25	15	31.9	82	44.6	138	59
One	1	8.3	4	8.5	36	19.6	42	18
Two	2	16.7	9	19.2	32	17.4	30	12.8

Three	2	16.7	7	14.9	23	12.5	18	7.7
Four	1	8.3	5	10.6	2	1.1	3	1.3
More than Four	3	25	7	14.9	9	4.9	3	1.3
	12		47		184		234	

4.3.4 NUMBER OF PARTNERS VERSUS FREQUENCY OF ALCOHOL USE

The results show students who drank more frequently (more than once or twice a week), had more sexual partners than those who rarely drank. (“rarely” = 56% had no partner, 16% had one, and 27% had more than one; vs. “once or twice a week” = 41% had no partners, 19% had one, and 40% had more than one partner.) Of those who had more than one partner, 5 students drank everyday, 40% were “once or twice a week” drinkers, 31% “once or twice a month drinkers”, and 27% rarely drank

Students who drink more frequently have more sexual partners than less frequent drinkers, however differences are not significant (Table 9).

	Everyday		Once or twice a week		Once or twice a month		Rarely	
	N	%	N	%	N	%	N	%
None	1	16.7	52	41.3	105	52.0	81	56.3
One	0	0	24	19.1	35	17.3	24	16.7
Two	2	33.3	22	17.5	29	14.4	21	14.6

Three	2	33.3	14	11.1	19	9.4	14	9.7
Four	1	16.7	4	3.2	5	2.5	1	0.7
More than Four	0	0	10	7.9	9	4.5	3	2.1
	6	1.3	126	26.4	202	42.3	144	30.1

Table 9: Number of partners versus frequency of alcohol usage

4.4 PREVENTATIVE MEASURES

4.4.1 CONDOM USE WITH PRIMARY PARTNER



Students were asked how often they had used condoms with their *primary partner* during the last twelve months. More than fifty - percent reported *always* using a condom and 17% indicated that they *never* used a condom. Nineteen- percent used condoms more than half the time, and 13% used less than half the time (Figure 9).

Q.34: How often did you use condoms with your primary partner during the last 12 months?

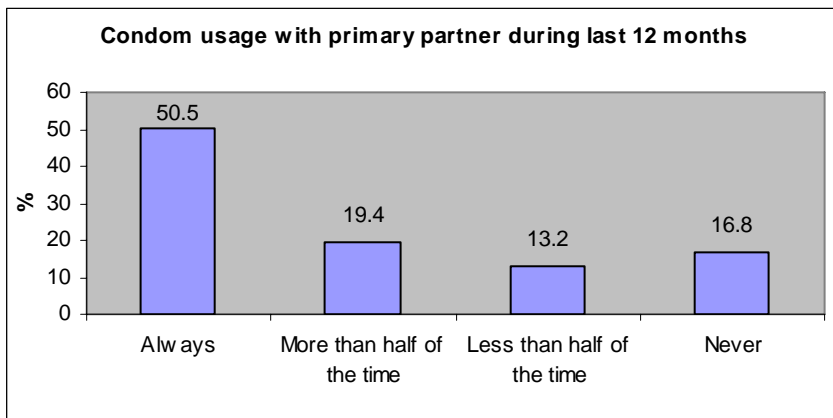


Figure 9: Condom use with primary partner during the last year



4.4.2 CONDOM OR DENTAL DAM USE WITH NONPRIMARY PARTNERS

Almost sixty three percent reported having *always* used protection during the last 12 months, with 17% reporting *never* using protective measures. Furthermore 14% used protection more than half the time, and 6% used less than half the time (Figure 10).

Q41: How often did you use a condom or a dental dam with other sexual partners during the last 12 months?

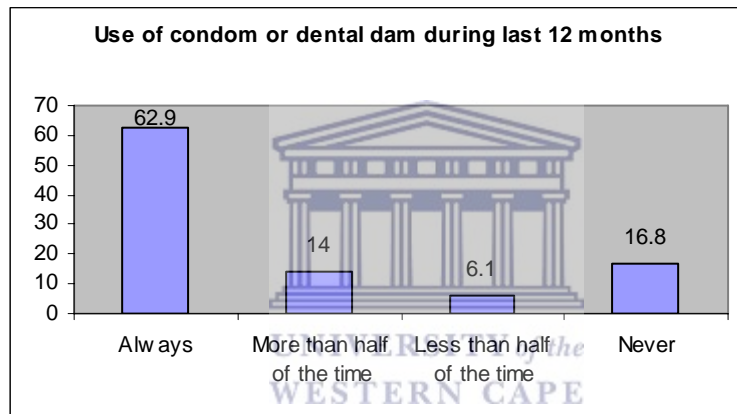


Figure 10: Use of condoms or dental gum with **nonprimary** partner (last 12 months).

4.4.3 PREVENTIVE MEASURES TO DECREASE HIV INFECTION RISK

Sixty-eight percent of students have tried to decrease their risk of possible HIV infection (Table 10). Preventative measures included; using a condom more often – 36% abstinence - 29% having less partners – 17% using a condom for the first time. Participants could indicate more than one response. (Table 11 and Figure 11).

Table 10: Percentage of respondents trying to decrease HIV infection risk.

Q53 In the last 12 months have you tried to do anything to decrease your risk of infection with HIV?		
		%
Yes	473	68
No	223	32



Q54: What did you do to try to decrease your risk of infection with HIV?		
		%
Abstain from sex	170	29.3
Have less partners	97	16.7
Used a condom for the first time	35	6.0
Used a condom more often	208	35.9
Tried to get partner to change behaviour	37	6.4
Other	33	5.7

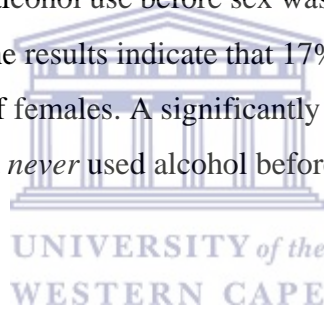
Table 11: Preventative measures to reduce HIV infection risk.

4.5 CROSS TABULATIONS

To analyze the relationship between variables, use was made of cross-tabulation analysis. Chi-square statistics were generated to test the relationship between the variables. (The computed chi-square value was determined to be *significant at the 0.05 level of statistical significance.*)

4.5.1 USE OF ALCOHOL BEFORE SEX / GENDER

To test the hypothesis that *male students* are more likely than females to use alcohol before sex, the frequency of alcohol use before sex was cross-tabulated with the gender of the respondents. The results indicate that 17% of males had used alcohol before sex compared to 8% of females. A significantly higher percentage of females (58%) indicated that they had *never* used alcohol before sex compared to the 40% of males (Table 12).



Above-mentioned results suggest that males are more likely to use alcohol before sex than females.

Table 12: Use of alcohol before sex – male students are more likely to use alcohol before sex

	More than half of the time		Less than half of the time		Never	
	N	%	N	%	N	%
Male	38	16.7	98	43.2	91	40.1
Female	22	8.1	93	34.2	157	57.7

(Chi -Square: 18.05; p<0.0001)

4.5.2 STUDENTS LESS LIKELY TO USE CONDOMS WITH ALCOHOL USE?

4.5.2.1 Alcohol use before sex and condom use with primary partner

To test the hypothesis that students are *less likely* to use condoms with the consumption of alcohol, the frequency of *alcohol use before sex* was cross-tabulated with the *frequency of condom use with primary partner*. The results show that consistent usage of condoms was higher among those who *never* drank before sex (57%), than among those who used alcohol, before sex in less than half the time. Forty eight percent used a condom all the time or used alcohol before sex in more than half the time. Forty one percent indicated that they used a condom all the time (Table 13).

Although consistent condom use is reported higher in those who never drink before sex, the differences found were *not statistically significant*.

	Always use condoms		Use condoms more than half the time		Use condoms less than half the time or never	
	N	%	N	%	N	%
Alcohol before sex more than half the time	24	40.7	14	23.7	21	35.6
Alcohol before sex less than half the time	90	47.9	38	20.2	60	31.9
Never have alcohol before sex	136	56.7	44	18.3	60	25

(Chi -Square: 18.05; p>0.05)

Table 13: Use of alcohol before sex and condom use with primary partner.

4.5.2.2 Frequency of alcohol use *in general* and condom use with primary partner

The frequency of alcohol use in general was also cross-tabulated with condom use with primary partner. Again there was an inverse relation between alcohol use and condom use with 44% of those *who drink at least once a week* indicating that they *always* used condoms. Of those who rarely drank, 55% indicated that they used condoms all the time (Table 14).

A higher percentage of less frequent alcohol users compared to more frequent drinkers report always using a condom. The relationship however was *not found to be statistically significant*.



	Always use condoms		Use condoms more than half the time		Use condoms less than half the time or never	
	N	%	N	%	N	%
Drink alcohol at least once or twice a week	58	43.9	38	28.8	36	27.3
Drink alcohol once or twice a month only	109	53.7	33	16.3	61	30.1
Rarely drink alcohol	83	54.6	26	17.1	43	28.3

(Chi -Square: 18.05; p>0.05)

Table 14: Frequency of alcohol use in general and condom use with primary partner

4.5.2.3 Alcohol use before sex and condom use (nonprimary partner)

The frequency of condom use with nonprimary partner was also cross-tabulated with the use of alcohol before sex. Condom usage varied with alcohol use before sex as a higher percentage of those who *never* have alcohol before sex indicating that they *always* used condoms. (68% compared to 56% of those who used alcohol before sex more than half the time). (Table 15)

Although those who never use alcohol before sex reported the highest percentage of consistent condom users, the difference was *not statistically significant*.

	Always use condoms		Do not always use condoms	
	N	%	N	%
Alcohol before sex more than half the time	24	55.8	19	44.2
Alcohol before sex less than half the time	73	61.9	45	38.1

Never have alcohol before sex	86	68.3	40	31.8
-------------------------------	----	------	----	------

(Chi -Square: 18. 05; p>0. 05)

Table 15: Alcohol use *before sex* and condom use with non-primary partner

4.5.2.4 Frequency of alcohol use *in general* and condom use (nonprimary partners)

The frequency of alcohol use in general was cross-tabulated with condom use with nonprimary partner. The results indicate *no relationship* between the use of alcohol and condom usage. Thus the percentage of respondents indicating that they *always used* did *not vary with alcohol use*. (64% of students who drink alcohol at least *once a week* indicated that they used condoms, and 64% of those who *rarely* drank indicated that they *always* used condoms (Table 16).

The results suggest that frequency of alcohol use *plays little role in those with nonprimary partners*.

	Always use condoms		Do not always use condoms	
	N	%	N	%
Drink alcohol at least once or twice a week	55	64	31	36.1
Drink alcohol once or twice a month only	80	63	47	37

Rarely drink alcohol	47	63.5	27	36.5
----------------------	----	------	----	------

(Chi -Square: 18. 05; p>0. 05)

Table 16: Alcohol use *in general* and condom use (nonprimary partners)

4.6 CHAPTER SUMMARY

This chapter presented descriptive results of alcohol use patterns, unplanned sex, and numbers of sexual partners, condom use trends, and HIV risk reduction measures. Cross-tabulations to test the assumption that alcohol use increased the likelihood of non/inconsistent condom use produced *some (though not statistically significant)* differences. *No relationship* was found in frequency of alcohol use and frequency of condom use in nonprimary partner(s). As predicted some significant gender differences were found (i.e. males more likely to use alcohol before sex than females) but these and other interesting findings will be discussed in the following chapter.

CHAPTER 5



DISCUSSION AND CONCLUSION

UNIVERSITY *of the*
WESTERN CAPE

5.0 INTRODUCTION

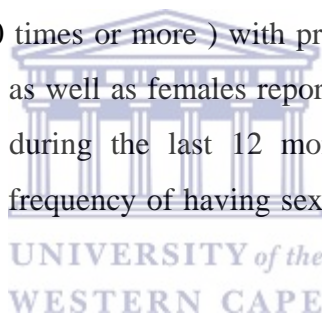
In this chapter the results of the present study are summarized and explained. The limitations and implications of this study, as well as suggestions for future research are provided. The chapter concludes with a summary of the entire thesis.

5.1 BRIEF SUMMARY OF OVERALL STATISTICS

The number of participants in the 17-25 year-old age group totaled 1837 students. Of those 777 (or 42%) reported being sexually active during the last 12 months. Sixty-five percent of the sexually active students in this age group report drinking, but the majority (73%) do *not* drink frequently (rarely or once or twice a month). Although only 27% of students are more frequent drinkers, almost double the amount of males (35% vs. 19%) report drinking more frequently (more than once a week) than females.

Overall only 13% of students report currently having *more than one sexual* partner. Sixty-six percent of students report having one sexual partner, and 20% report not being sexually active currently. (More males than females report currently having more than one sexual partner.)

Overall a significantly low percentage (10%) of students report to be sexually active (about 5 times a month or 50 times or more) with primary partners during the last year. Just over 60% of males as well as females report sexual activity with primary partner as *under ten times* during the last 12 months. (No significant gender differences were reported for frequency of having sex with primary partners during the last 12 months.)



More than fifty - percent reported *always* using a condom with their *primary partner* during the last twelve months (17% indicated that they *never* used a condom).

Almost sixty three percent reported having *always* used protection during the last 12 months, with nonprimary partners (17% reporting *never* using protective measures).

The above statistics suggests that a change has begun in young peoples' sexual behaviour. The above data provides reasons for optimism, as it is common knowledge that young peoples' sexual behaviour is characterized by risktaking such as alcohol use, multiple partners, and unprotected sex. The National Health risk Behaviour Survey found that 8 out of 10 college students (between the ages of 18-24) have had intercourse and that 25% have had 6 or more lifetime partners, with

fewer than 25% reporting always using a condom (MacDonald, et al., 1990 cited in Cooper, 2002)

Contrary to these widely accepted findings, only 42% (777) of our original sample report to being sexually active during the last 12 months, and although 65% report to ever having drunk alcohol, the majority (73%) of students are moderate or “rare” drinkers. Only 13% of our sample report to having more than one sexual partner, and more than 50% report to always using condoms with primary partner and 63% always using protection with nonprimary partners. These results can somehow indicate that youth might be starting to internalize possible HIV infection as a significant risk factor, and is willing to embrace the positive value of welcoming safe sex practices.

This concept can be explored by looking at participants’ responses to two a questions probing for behaviour modification to decrease HIV infection risk.

5.2 DECREASE IN HIV INFECTION RISK

Sixty eight percent of respondents claim to have attempted to decrease the risk of HIV infection during the past months. Thirty five percent report to have started using a condom more often, 30% opted to abstain from sex, and 17% had fewer partners than before.

The above responses clearly indicate that a shift has begun in young peoples’ worldview of HIV/AIDS, which is a significant component of sexual behaviour-modification. Bandura’s (1994) social cognitive theory posits that the recognition by students that they are at risk may be the first step to self-efficacy (confidence in their ability to perform a behaviour). Students’ recognition of being at risk, and their belief in benefits of the desired outcome thereof, will result possible long-term behavioural change (Stone, 1998).

5.3 PERCEPTIONS OF UNSAFE/ UNPLANNED SEX

Twenty percent of students believe that they are more likely to engage in *unsafe sex* whilst under the influence of alcohol, 55% believe that they are *less* likely to, and the other 25% claimed that it made no difference. (More males than females claim to be *more* likely to.)

Not surprisingly, 29% of students reported to having ever engaged in sexual activity that they would *not* have engaged in when sober. (Just less than half of the males (43%) versus 18% of females report such behaviour).

A theoretical explanation for above behaviour can be provided in the Alcohol Expectancy model. This model proposes that drinking may produce a self-fulfilling prophesy, whereby to the extent that people believe in alcohol's ability to cause loss of control, it will lead to sexual risktaking. Leigh (1990) cites Room (1983: 41) ...effects that are believed real are real in their consequences.”



5.4 HYPOTHESES OUTCOMES AND DISCUSSIONS

USE OF ALCOHOL/ GENDER

H₁ Male students are more likely to use alcohol before sexual activity than females

The results suggest that males are more likely to use alcohol before sex than females. The results however, do not *conclusively* demonstrate this as the significant relationship between alcohol use before sex and gender. It could possibly be due to the greater alcohol use in general among males compared to females (35% males vs. 19% females who drink once or twice a week).

MULTIPLE PARTNERS

H₂ Students who drink more frequently are more likely to have multiple partners

The results reflect that students who use alcohol before sexual intercourse more regularly have *more sexual partners* than those who use it less often; however these differences are not significant. (More males than females report currently having more than one sexual partner.)

(H₃) STUDENTS LESS LIKELY TO USE CONDOMS WITH ALCOHOL USE

(a) Alcohol use before sex and condom use with primary partner.

The results show that although consistent condom use is reported higher in those who never drink before sex, the differences found were *not statistically significant*.

(b) Frequency of alcohol use in general and condom use with primary partner.

Again there was an inverse relation between alcohol use and condom use with 44% of those *who drink at least once a week* indicating that they *always* used condoms. In addition, a higher percentage of less frequent alcohol users compared to more frequent drinkers report always using a condom. The relationship however was *not found to be statistically significant*.

(c) Alcohol use before sex and condom use (non-primary partner).

Condom usage varied with alcohol use before sex and a higher percentage of those who *never* have alcohol before sex indicating that they *always* used condoms. However, the differences between alcohol use before sex and condom use with non-primary partners were *not statistically significant*.

(d) Frequency of alcohol use in general and condom use (non-primary partners)

The frequency of alcohol use in general was cross-tabulated with condom use with non-primary partner. The results indicate *no relationship* between the use of alcohol and condom usage. Thus the percentage of respondents indicating that they *always used* did *not vary with levels of alcohol use*. The results suggest that frequency of alcohol use does not play a role in those with non-primary partners.

Although we failed to find any appreciable statistically significant correlation in alcohol use and unsafe sex, our findings confirm that *unsafe sex practices such as noncondom use and multiple partners increased with the consumption of alcohol*. Our findings of a definite link/relationship between alcohol use and unsafe sex practices are consistent with reports from previous research done on college campuses (Desiderato & Crawford, 1995; Weshsler & Isaac, 1992; Lo & Globetti, 1993 cited in Poulsen et al., 1998). Such outcomes could be attributed to impaired judgment as explained through alcohol myopia theory. This approach embraces the reality of alcohol's pharmacological agents which mutes awareness of inhibitions and tunnels one's vision towards desirable urges (George & Stoner, 2000).

The fact that no relationship was found between alcohol use and condom use with *non-primary partners* could be attributed to the overall low percentage of our sample (13%) reporting having more than one sexual partner. Another explanation could be due to the alcohol expectancy outcome aspect of drinking. This model posits that the mere belief that they were at risk of engaging in unsafe sex with an unknown partner due to their drinking could motivate condom use despite the disinhibiting effects of alcohol consumption.

Consistent with most studies, overall men reported higher levels of alcohol use, multiple partners, as well as noncondom use (Oliver & Hyde, 1993 cited in Netting & Burnett, 2004). These behaviours might be perceived to be more acceptable for men and inappropriate for women. Because all too often men are socialized to believe that having sex implies "manhood", these attitudes that could lead them to believe that they are invulnerable to HIV infection.

5.5 LIMITATIONS OF THE STUDY

Several limitations of this research should be noted. Because this study analyzed an data drawing from a larger baseline study, it could therefore not correct the perceived mistakes or inaccuracies found in the design of the research instrument. (For example although frequency of alcohol use was explored, quantity thereof was not verified making it difficult to identify “heavy” drinkers.)

The analysis was limited to adolescents and young adults, a group usually characterized by greater alcohol use and high-risk sexual behaviour. Our sample however, reported quite moderate drinking behaviour and low levels of sexual activity and risky practices which might have limited the significance of statistical computations. This largely low-risk sample (with few homosexuals or persons with multiple partners) could possibly make inference problematic.

Another methodological concern is that our data were based on self-reports. It is widely believed that in such reports respondents might be tempted to present themselves in a more favourable way in what is termed as “social desirability”. Researchers suggest that it could result in under-reporting the frequency of problematic behaviour (Midanik, 1988 cited in Poulsen, et al., 1998).

5.6 SUGGESTIONS FOR FUTURE RESEARCH

Future studies could be conducted to compare the sexual behaviour of drinking and nondrinking young people to provide a clearer picture of the relationship between alcohol and unsafe sex practices. Also, research that examines possible *causes* of both substance use and risky sex could provide further insight into this relationship.

Lastly, studies should be conducted to determine whether young people/students had undergone HIV testing and have knowledge of each other’s HIV status, and current

sexual negotiation scripts. These kinds of studies could provide crucial data for educating young people about the consequences of their positive and/or negative sexual behaviours.

5.7 IMPLICATIONS OF THE PRESENT FINDINGS

This study confirms (though not statistically significant) the existing link/relationship between alcohol use and unsafe sex practices such as non/inconsistent condom use, and multiple partners. Young male students have been found to especially be at risk for these behaviours and should be encouraged to embrace safer sex practices. Public health efforts should continue to be aimed at promoting consistent condom use and monogamy for young people in general who are already sexually active and choose to so, as it decreases (although not fully eliminate) the transmission of STI's including HIV.

It is encouraging to have found that 58% of participants in this age group reported **not** being sexually active during the past 12 months. That could mean that young people might be choosing to adopt a celibate lifestyle in response to the danger of HIV/AIDS.

Abstaining from intercourse should therefore remain (or become) a major focus of primary prevention to decrease youth pregnancy, STI's and HIV infection. Young people who have been previously sexually active could be counseled with regards to the benefits of postponing future sexual activity (American Academy of Pediatrics, 2001). This intervention process is promoted through Bandura's (1994) social cognitive theory supporting the idea that young people will have motivation to invest in learning a new skill or behaviour when they **believe** it to be a useful and effective practice.

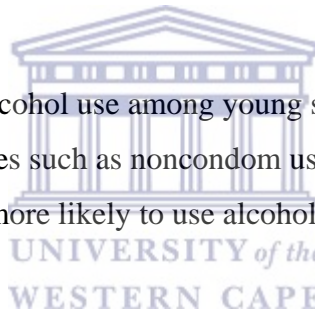
Finally, whilst the exact extent of alcohol as a risk factor for enhancing HIV transmission is unclear, substance use/abuse reduction and prevention should be

integrated into life skills and HIV/AIDS education programs. This should be done simply because; "Alcohol and other drug abuse...is a major cause of crime, poverty, reduced productivity, unemployment, dysfunctional family life, political instability, [and] the escalation of chronic diseases such as AIDS..." (Drug Advisory Board, 1999 cited in Parry & Abdool-Karim, 2000).

This time in the lives of young people is critical for implementing health-protection programmes as many adults currently living with HIV/AIDS were infected during adolescence and young adulthood (Health Canada, 2001 cited in Netting & Burnett, 2004). By investing in prevention and reduction of substance use/abuse and unsafe sex practices, one prevents and controls the spread of HIV/AIDS.

5.8 CONCLUSION

It was expected to find that alcohol use among young students would lead to an increase in unsafe sex practices such as noncondom use and multiple partners, and that male students would be more likely to use alcohol before sexual activity than females.



These hypotheses were only partially supported. Although descriptive results revealed that alcohol users were more likely to engage in unsafe sex practices (i.e. multiple partners and non/inconsistent condom use), cross-tabulations did not produce statistically significant results. Furthermore, men were found to be more frequent alcohol users and have more multiple sexual partners. Although the frequency of alcohol use affected (*though insignificantly*) their condom use with primary partners, it showed no association in relation to condom use with nonprimary partners.

Despite results confirming the link/relationship of above-mentioned variables, the overall picture of this study reveals an increase in safer sex practices among young students. There appears to be a shift to committed relationships (monogamy=66%)

and celibacy (58% percent of sample report sexual inactivity within the last 12 months). An increase condom use (more than half the time with primary partners and 63% consistent use with nonprimary partners); and a decrease in multiple partners (13% reporting more than one partner and 20% currently having none). In addition, the vast majority of students (68%) report to have decreased possible HIV infection by abstaining, using a condom more often, and having less sexual partners.

Perhaps part of the shifts to embrace the positive values of safer sex practices observed here is attributable to captions such as: “RECTOR PAVES THE WAY FOR PUBLIC HIV/AIDS TESTING” and “HIV/Aids the focus of First year Computer Literacy” (On Campus, 2004).

This individual and collective ownership of challenges such as HIV/AIDS can surely aid in reducing stigmas and bringing about positive change in attitudes and understanding- and therefore, behaviour.



REFERENCES

- Arnett, J. 2001. *Adolescence and emerging adulthood*. New Jersey: Prentice Hall.
- Alhassan, A. (n.d.) Perception of risk and action taken to avoid HIV/AIDS infection among students in high-risk state. *IFE Psychologia: An International Journal*, [Online]. Available: <http://www.google.com>. (accessed 03-07-2004)
- Asamoah, A. 2003. Adolescent Sexual behaviour and the AIDS pandemic: Challenge for school counselors. *IFE Psychologia: An International Journal*, 11 (2): 9-18. [Electronic]. Available: Sabinet: SAE Publications.
- American Academy of Pediatrics. 2001. Condom use by adolescents. *Pediatrics*, 107 (6): 1463-1469. [Online] Available: <http://www.google.com> (accessed 12-08-04)
- Bandura, A. 1994. Social Cognitive Theory and exercise and exercise control over HIV infection. In R. J. DiClemente & J. L. Peterson (Eds.), *Preventing AIDS: Theories and methods of behavioral interventions* (pp. 25-59). New York: Plenum.
- Bandura, A. 1999. A Sociocognitive analysis of substance abuse: An agentic perspective. *Psychological Science*. 10 (3). [Online] Available: <http://www.google.com> (accessed 15-08-2004)
- Barnes, T. 2000. *The Impact on HIV/AIDS on the University of the Western Cape*. Association for the Development of Education in Africa.
- Beaufort, C. 2002. *A factsheet for practitioners: HIV/AIDS and adolescents and young adults*. National Association of Social Workers (NASW). [Online]. Available: <http://www.google.com> (accessed 21-08-2004)

- Bless, C., & Higson-Smith, C. 1995. *Fundamentals of Social research methods: An African perspective*. Kenwyn, 2nd ed. Cape Town: Juta & Co, Ltd.
- Caelers, D. 2004. Schools targeted as HIV figures rise. Cape Town: *Cape Argus*, 8 October 2004.
- Campbell, E.K. 2003. A Note in alcohol consumption and sexual behaviour of youths in Botswana. *African Sociological Review*, 7 (1): 146-161.
- Coloroso, B., Kropp, P., Sacks, D., & Wooding, S. 2004. What to do if... *Maclean's*, 117 (9): 28-33. [Electronic] Available: EBSCOHost: Academic Search Premier.
- Connor, Mark., Graham., Simon., Moore. & Bianca. 1999. Alcohol and intentions to use condoms: Applying the Theory of Planned Behaviour. *Psychology and Health*, 14(5). [Electronic]. Available: EBSCOHost: Academic Search Premier.
- Cooper, M.L. 2002. Alcohol use and risky sexual behaviour among college students and Youth: Evaluating the evidence. *Journal of Studies on Alcohol*, 14: 101-117.
- Donovan, C. & McEwan, R. 1995. A review of the literature examining the relationship between alcohol use and HIV-related sexual risk-taking in young people. *Addiction*, 90: 319-328.
- Flisher, A.J., Parry, C., Muller, M. & Lombard, C. 2002. Stages of substance use among adolescents in Cape Town, South Africa. *Journal of Substance Use*, 7: 162-167.

- George, W. & Norris, J. 1991. Alcohol, disinhibition, sexual arousal, and deviant sexual behaviour. *Alcohol Health and Research World*, 15 (2) [Electronic]. Available: EBSCOHost: Academic Search premier.
- George, W. & Stoner, S. 2000. Understanding acute alcohol effects on sexual behavior. *Annual review of Sex Research*, 11: 92-123. [Electronic]. Available: EBSCOhost: Academic Search premier.
- Goldstein, N., Pretorius, H., Stuart, A. 2003. The social construction of HIV/AIDS. *Health SA Gesondheid*, 8 (2) [Online]. Available: <http://www.google.com> (accessed 15-08-2004)
- Graves, K & Leigh, B. 1995. The relationship of substance use to sexual activity among young adults in the United States. *Family Planning Perspectives*, 27 (1): 18-33.
- Guo, J., Chung, I., Hill, K., Hawkins, D., Catalano, R. & Abbott, D. 2002. Developmental relationship between adolescent substance abuse and risky sexual behaviour in young adulthood. *Journal of Adolescent Health*, 31: 354-362.
- Jessor, R., Graves, T., Hanson, R., & Jessor, S. 1968. *Society, personality, and deviant behavior*. New York: Holt, Rinehart & Winston, Inc.
- Jooste, S. 2003. *Health care seeking behaviour for sexually transmitted infections in South Africa*. Unpublished Masters Thesis. Cape Town: University of the Western Cape.
- Kaiser Family Foundation. 2002. *Youth knowledge and attitudes on sexual health: A National survey of adolescents and young adults*. National Centre on Addiction and Substance Abuse (CASA): Columbia University.

- Kelly, M. 2002. Preventing HIV transmission through education. *Perspectives in Education*, 20 (2): [Online] Available: <http://www.google.com> (accessed 18-08-04)
- Korn, M. & Maggs, J. 2004. Why drink less? Diffidence, self-presentation styles, and alcohol use among university students. *Journal of Youth and Adolescence*, 33 (3): 201-211.
- LaBrie, J., Schiffman, J. & Earleywine, M. 2002. Expectancies specific to condom use mediate the alcohol and sexual risk relationship- Statistical data included. *Journal of Sex Research*, [Online]. Available: <http://www.google.com> (assessed 16-08- 2004)
- Langer, L., Warheit, G. & McDonald, L. 2001. Correlates and predictors of risky sexual practices among a multi-racial/ethnic sample of university students. *Social Behavior and Personality*, 29 (2): 133-144.
- Leigh, B. 1990. Alcohol and unsafe sex: An overview of research and theory. In D. Seminara, R. Watson, & A. Pawlowski (Eds.), *Alcohol Immunomodulation, and AIDS*. (pp. 35-46). New York: Alan R. Liss, Inc.
- Madsen, D. 1992. *Successful dissertations and theses*. San Francisco: Jossey-Bass Publishers.
- Netting, N. & Burnett, M. 2004. Twenty years of student sexual behaviour: Subcultural adaptations to a changing health environment. *Adolescence*. 39 (153): 19-39.

Official Newsletter of the University of the Western Cape. *On Campus*, 27 May 2004.

Parry, C. & Abdool-Karim, Q (Medical Research Council). 2000. Substance abuse and HIV/AIDS in South Africa. In NIDA (Eds.), *Proceedings of 2nd Global Research Network meeting on HIV prevention in drug-using populations, Atlanta, 1999* (pp. 81-88). Washington DC: US Department of Health and Human Services. [Online]. Available: <http://www.google.com> (accessed 14-07-2004)

Morris, A & Albery, I. 2001. Alcohol consumption and HIV risk behaviours: Integrating the theories of Alcohol Myopia and Outcome expectancies. *Addiction Research and Theory*, 9 (1): 73-87.

Morrison, D., Gillmore, M., Hoppe, M., Gaylord, J., Leigh, B., & Rainey, D. 2003. adolescent drinking and sex: Findings from a daily diary study. *Perspectives on sexual and Reproductive Health*, 35 (4) [Online] Available: <http://www.google.com> (accessed 14-07-2004)

Parry, C. 1998. *Substance Abuse in South Africa: Country Report focussing on Young people*. Prepared for the WHO/UNDCP Regional Consultation-Global Initiative on primary prevention of substance abuse among young people, Harare, Zimbabwe, 24-26 1998 [Online] Available: <http://www.google.com> (accessed on 23-08-2004)

Peltzer, K. 2003. HIV/AIDS/STD knowledge, attitudes, beliefs and behaviours in a rural South African adult population. *South African Journal of Psychology*, 33 (4): 250-260.

Peltzer, K., Oladimeji, B., & Morakinyo, O. (n.d.). Factors affecting behaviours that address HIV risk among Nigerian university students. *IFE Psychologia: An*

International Journal, [Online]. Available: <http://www.google.com> (accessed 13-07- 2004)

Phillips, H. 2001. AIDS in the context of South Africa's Epidemic history: Preliminary historical Thoughts. *South African Historical Journal*, 45: 11-26. [Online]. Available: <http://www.google.com> (accessed 15-07-2004)

Plant, M. & Plant, M. 1992. *Risktakers: Alcohol, drugs, sex and youth*. London: Routledge.

Plant, M., Peck, D., Samuel, E. 1985. *Alcohol, drugs and school-leavers*. London: Travistock Publications.

Poulson, R., Eppler, M., Satterwhite, T., Wuensch, K. & Bass, L. 1998. Alcohol consumption, strength of religious beliefs, and risky sexual behavior in college students. *Journal of American College Health*, 46 (5).

Ramisetty-Mikler, Suhasini, Caetano, Raul, Goebert, Deborah, Nishimura, & Stephanie. 2004. Ethnic variation in drinking, drug use, and sexual behaviour among adolescents in Hawaii. *Journal of School Health*. 74 (1). [Online]. Available: EBSCOHost: Academic Search Premier.

ReCAPP: Evidence based programmes: Be proud! Be Responsible. 2004. [Online]. Available: <http://www.etr.org/recapp/programs/proud.htm> (accessed 14-07-2004)

Reproductive Health Outlook (RHO). 2004. *Special focus: Young people and HIV/AIDS*. [Online]. Available: <http://www.rho.org/html/hiv-aids.htm> (accessed 24-07-2004)

- Simpson, M.R. 1996. *Knowledge of safe sex practices and HIV transmission, propensity for risk taking, and alcohol/drug use in the aetiology of unprotected sex*. Unpublished Masters Thesis. Grahamstown: Rhodes University.
- South African Community Epidemiology Network on Drug Use (SACENDU). 1998. *Alcohol and drug abuse module*. [Online]. Available: <http://www.sahealthinfo.org/admodule/sacendu3.htm> (accessed 04-02-2004)
- Stone, D. 1998. *Social Cognitive Theory*. University of South Florida. [Online]. Available: http://hsc.usf.edu/~kmbrown/Social_Cognitive_Theory_Overview.htm (accessed 13-07-2004)
- Stoyles, G.J. 2002. Keeping one step ahead: TANDEM, an assessment and intervention programme for parents of adolescents at risk of problem behaviour. D.Philosophy. Thesis. Department of Psychology, University of Wollongong. [Online] Available: <http://www.google.com/search?hl=en&ie=UTF-> accessed 12-07-2004)
- Sylvester, N. & Peltzer, K. 2003. Factor structure of condom attitudes among Black South African University students. *Social Behaviour and Personality*, 31 (3): 265-274.
- Szuchman, L., & Thomlison, B. 2004. *Writing with style: APA style for Social Work*. 2nd ed., Belmont, CA: Thomson Brookes/Cole.
- Valentine, S. 2004. Calls to act on Aids as world keeps talking. Cape Town: *Cape Argus*, 12 July, 8.

Visser, M. 2003. Risk behaviour of primary school learners in a disadvantaged community – a situational analysis. *South African Journal of Education*, 23 (1): 58-64.

