HEALTH RISK BEHAVIOURS AMONG BLACK ADOLESCENT FEMALES IN THE STRAND: A MIXED-METHODS INVESTIGATION

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ABSTRACT

In South Africa there are currently 44.8 million people under the age of 20 years accounting for approximately 44% of the total South African population. Literature has indicated a number of lifestyle behaviors which account for most of the mortality, morbidity and social problems in adolescents. These behaviors include tobacco uses, unhealthy dietary behaviors, physical inactivity, alcohol and other drug use, risky sexual behaviors, and behaviors that result in unintentional and intentional injuries. Adolescent women are profoundly affected by a number of health risks related to their behavior. Many of these also affect their male peers such as smoking, drinking, use of other drugs, and violence, but have a special effect on women because of either higher prevalence or a relationship to other risks. Another set of risky behaviors are those uniquely linked to women's reproductive potential. The health of young people today, and the adults they will become, is critically linked to the health related behaviors they choose to adopt. It is thus vitally important for health professionals to address adolescent health issues with targeted health-related interventions and effective health-promoting programmes. The heightened adverse health effects of many risk behaviors for adolescent women and the unique risks associated with being female point to the need for gender-specific prevention efforts. The purpose of this study was to investigate health risk behaviours among black female high school learners. The study used a mixed method approach, specifically the sequential explanatory strategy. Quantitative data was collected using two self-administered questionnaires assessing six domains of health risk behaviours including

cigarette use, alcohol use, drug use, sexual activity, behaviours leading to violence and behaviours related to physical activity. Qualitative data was collected by means of focus groups to complement the quantitative data. The study sample consisted of 801 female high school learners ranging from age 13-19 years with a mean age of 15.75 years (SD=1.57). Cross-tabulations were used to determine frequency counts of health risk behaviours in the various groups defined in the research questions. Overall 45.1% of the sample smoked; 57.8% used alcohol; 11.3% used drugs; 27.6% were sexually active and 50.9% were not physically inactive. Content analysis was used for the analysis of the focus groups. Five main themes emerged from the analysis of the focus groups: awareness of heath consequences and of sources of knowlegde pertaining to health risk behaviours; behavioural regulations imposed by significant others; peer group factors; environmental and/or community factors; and personal attitudes and beliefs about health risk behaviours. Results of this study confirm that many female high school learners are engaging in a number of health risk behaviours and that they are initiating these at a very early age. These risk behaviours could lead to short- and long-term consequences related to their overall health and wellness. The study highlighted the need to start prevention efforts during early adolescence because of the early age that learners begin to engage in risk behaviours. This suggests that prevention efforts should be aimed at primary school learners as well and that waiting until Grade 8 may be too late. Cognizance must be taken to gender-specific considerations for prevention efforts due to the content themes that emerged.

DECLARATION

I declare that "**Health risk behaviours among Black female adolescents in the Strand: A mixed-methods investigation**" is my own work, that it has not been submitted for any degree of examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged by means of complete references.

JS Phillips

Signature..... November 2005

Witnesses:

....

Professor C Malcolm Professor SL Amosun

DEDICATION

To my daughter Stephanie Erica Phillips, to whom I am eternally grateful for her love, understanding and patience.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION TO CHAPTER

In this chapter the rationale of the study highlights the broad range of lifestyle behaviours which account for most of the mortality and morbidity of adolescents in both developed and developing countries. The purpose of the study is explained and the specific aims outlined. The mixed methods research paradigm is highlighted and explained. Finally the significance of the study demonstrates the need to understand the prevalence of health risk behaviours among adolescents and their reasons for engaging in them to develop more effective prevention programmes. The chapter ends with the definition of terms used in the study.

1.2 BACKGROUND

The world today is experiencing an unprecedented increase in the number of young people. One in 5 persons in the world is a young person. According to the International Clinical Epidemiology Network (2002), adolescents comprise 20% of the total world population, of whom 85% live in developing countries. The adolescent population is burgeoning, with the number of urban youth growing a projected 600% between 1970 and 2025 (World Health Organization, 1997). In South Africa there are currently 44.8 million people under the age of 20 years (Statistics, SA, 2001). These young people account for approximately 44% of the

total South African population. The population is thus relatively youthful, a feature of the population of many developing countries. Twenty one percent (8.8 million) of young South Africans are adolescents between 10 and 19 years. More than 75% of the population in South Africa is "Black/African" and the prevalence of poverty is higher among this sector of the population.

Adolescence is a period of exploration and experimentation. Young people often lack the knowledge, experience and maturity to avoid the grave risks that confront them. In these formative years of adolescence, experiences of risky behaviors may thus either enhance or undermine the health status of individuals, as well as shape the quality of life in years to come. Young people are at risk of a broad range of health problems, and in both developed and developing countries they can face overwhelming problems, among them early pregnancy, high school drop-out rates, substance abuse, violence and HIV/AIDS, making them vulnerable to life-threatening diseases and conditions. The International Clinical Epidemiology Network (2002) stated that for most part, young people's problems have been ignored, with little understanding of the potential impact of a generation at risk of the future.

In 1996 the National Youth Commission was established and inaugurated in South Africa by the then president, Nelson Mandela. The Commission has been established through the National Youth Commission Act (1996) as part of the government's plan to develop a comprehensive strategy to address the problems

and challenges facing young women and men in South Africa (National Youth Commission, 1996). The 2001 South African Report on Youth of South Africa singles out the youth as an important but often neglected sector of society. As a result of the structural poverty that is the legacy of apartheid, millions of South African youth are at heightened risk for compromised health, compromised psychological development and increased mortality.

Adolescent women are profoundly affected by a number of health risks related to their behavior. Many of these are shared by their male peers (e.g. smoking, drinking, use of other drugs, and violence) but have a specific adverse effect on women because of either higher prevalence of these behaviours or via a relationship to other risks (Sarigiani, Ryan and Petersen, 1999). Another set of risky behaviors is uniquely linked to women's reproductive potential. According to Sarigiani et al (1999), altogether these behaviors present immediate health risks to adolescent women, and perhaps more importantly, may compromise future health outcomes as well as educational and occupational attainments. Literature has indicated a number of lifestyle behaviors which account for most of the mortality, morbidity and social problems in adolescents. These behaviors include excessive tobacco uses, unhealthy dietary behaviors, physical inactivity, alcohol and other drug use, risky sexual behaviors, and behaviors that result in unintentional and intentional injuries (Muscari, 1999). According to the Center for Disease Control and Prevention (2000) and Resnick, Bearman, Slum, Bauman, Hams, Jones, Tobar, Beuhring, Sieving, Shew, Ireland, Bearinger and Udry

(1997), the health of young people today, and the adults they will become, is critically linked to the health related behaviors they adopt in adolescence. These behaviors are usually established during youth, persist into adulthood, are interrelated, and are preventable. In addition to causing serious health problems, health risk behaviors simultaneously cause many of the educational and social problems that confront a nation, including failure to complete high school, unemployment and crime (Center for Disease Control and Prevention [CDC], 2001).

Over the past decades cigarette smoking has achieved the status of being the most preventable cause of death in the United States of America (USA), with an associated direct medical cost of more than $50 billion (Alexander, Piazza, Mekos and Valente, 2001; CDC, 2001; Morgan and Fox, 2000). According to Townsend, Roderick and Cooper (1994), cigarette smoking is the greatest cause of preventable disease in Britain. The South African Heart Foundation (2001) reported that there are 10 million smoking-related deaths a year worldwide, of which 7 million are in developing countries. In South Africa cigarette smoking has been reported to have negative impact on health status and the economy, as it contributes to mortality, morbidity, and lost productivity due to premature death (Yach, McIntyre and Salojee, 1992; Yach and Townshend, 1988; Yach and Joubert, 1988). However, despite the well-known health hazards associated with smoking, adolescents are continuing to smoke at alarming rates. The immediate health effects associated with cigarette smoking by adolescents include mild

airway obstruction and slowed growth of lung function, with adolescent girls more vulnerable to this latter effect (Gold, Wang and Wypij, 1996). Although smoking habits tend to begin in early adolescence, most of the health effects of smoking appear later in life (Sarigiani et al., 1999). In addition to all the adverse health effects experienced by men, women suffer from additional risks, such as impaired fertility and pregnancy complications, increased rates of cervical cancer, and premature menopause (Blumenthal, 1996; Smith, Goldberg and Rnowicz, 1993). Numerous studies have also shown that youth who use cigarettes are also more likely to engage in other unhealthy behaviours (Fleming, Kim, Harachi and Catalano, 2002; Everett, Malarcher, Sharp, Husten and Giovino, 2000; Choi, Patten, Gillen, Kaplan and Pierce, 1997).

According to the CDC (2001), the use of alcohol and other drugs has an enormous impact on the physical, mental and social health of a nation's youth. Alcohol continues to be the most common substance of abuse among United States teenagers (Simantov, Schoen and Klein, 2000). In South Africa an increase in teenage drinking and related problems has also been noted (Flisher, Ziervogel, Chalton, Leger and Robertson, 1993a). Alcohol use has been linked to physical violence, academic and occupational problems, and illegal behaviors. Long-term alcohol misuse is also associated with liver disease, cancer, cardiovascular disease and neurological damage. With regard to overall health effects, it is important to note that women are at increased risk from alcohol use because they need less alcohol per kilogram of body weight than do men to

attain the same peak blood level and level of impairment (Roshenow, 1998). These authors further stated that the cumulative effects of alcohol abuse generally result in more medical problems for women than for men (e.g., liver disease, stroke, breast cancer and osteoporosis).

Whereas most kinds of violence affect young men more than young women, child maltreatment victims are more likely to be female (US Department of Health and Human Services, 1996). Girls experience an increase in sexual abuse and rape beginning in early adolescence (Sarigiani, et al., 1999). The combined effects of having experienced physical, sexual and emotional abuse during childhood have long-term health consequences. Physical violence is reported to cause more physical injuries to women than car accidents and muggings (CDC, 1996). Chronic illnesses, such as chronic fatigue syndrome, head injuries, and chronic abdominal injuries have also been associated with domestic violence (Stark, 1995). Women with histories of physical, psychological and any sexual abuse are more likely to be treated for depression, allergies, infections and hypertension (Lawson, Rodger-Rose and Rajaram, 1999). In a study conducted with Black women in the USA, a history of childhood sexual abuse was positively correlated with depression and hypertension (Stark, 1995).

Youth in Sub-Saharan Africa are experiencing a unique challenge to their reproductive and sexual health. As they enter their reproductive years, they are faced with a transition from adolescence to adulthood foreshadowed by the

growing HIV/AIDS pandemic sweeping through the continent. Unprotected sexual intercourse and multiple sex partners place young people at risk for HIV infection, other sexually transmitted diseases and unwanted pregnancy (CDC, 2001). According to Shisana and Simbayi (2003), significantly more South African females (12.8%) are HIV positive than South African males (9.5%). Sexually transmitted diseases that destroy or diminish reproductive potential and result in early pregnancies are obvious health risks unique to adolescent women. Young women are more likely than young men to be infected with an STD, and are at especially high risk within 4 years of menarche (Sarigiani, et al., 1999). Twelve percent of all young females in South Africa became mothers between 12 and 16 years of age (Government Report, 2001). This highlights the seriousness of the problem of unwanted and unplanned pregnancy, particularly among teenagers of school-going age. Reduced educational and occupational attainments are often experienced by adolescent mothers. Adolescent sexual and reproductive health has been identified as one of the most important health, development and population problems facings South Africa (African National Congress, 1994).

Physical inactivity has been found to be as important a risk factor for chronic diseases of lifestyle as tobacco use (Colditz, 1999; Ferruci, Izmirlian, Leveille, Phillips, Corti and Brock, 1999; WHO 1999). According to Katzmarzyk, Gledhil and Shephard (2000), physical inactivity as a risk factor for several chronic diseases, can potentially be a substantial public health burden. Physical inactivity

threatens to reverse the decades-long process in reducing deaths from cardiovascular disease (CDC, 2000), as it can lead to obesity which has been associated with coronary artery disease, hypertension, cancers, gallstones, arthritis, diverticular disease and psychosocial problems (Friedman, 2000; Lacar Soto and Riley, 2000; Morbidity Mortality Weekly Report, 2000; Rasheed, Abou-Hozaifa and Khan, 1994; Trent & Ludwig, 1999). Weight loss is known to reduce the risk of these conditions developing. Juvenile obesity is associated with various risk factors for adult chronic diseases. However, the more immediate morbidity, as perceived by obese youth themselves, is psychosocial; that is, low self-image, psychiatric co-morbidities and discrimination by their peers (Bar-Or, 2000). A decade ago Noakes and Lambert (1995) already warned that the levels of habitual physical activity among urbanized South Africans are no better than what obtains in similarly urbanized populations in other countries. These authors' sentiments are confirmed by a study in a local community in the Western Cape, in which 65% high school learners in the Strand were considered to be physically inactive (Phillips, 2001). This is further confirmed Frantz (2005) that reported 37.5% of the learners in her study participated in insufficient or no physical activity. The Birth to Twenty study, the largest and longest running study of child health and development in Africa also found that more than 40% of young people do not participate in regular physical activity (Birth to Twenty, 2002).

In addition to ongoing democratic transition, South Africa is also undergoing an epidemiological transition. This epidemiological transition is characterized by a

triple burden of disease. Infectious diseases are underpinned by poverty and underdevelopment, chronic diseases are associated with urbanization and industrialization and intentional and unintentional injuries are closely associated with high levels of violence. Furthermore, the growing HIV/AIDS epidemic aggravates this triple burden of disease. All these diseases have links to both poverty and industrialization which co-exist in South Africa (WHO, 2002).

It is thus vitally important for health professionals to address adolescent health issues with targeted health-related interventions and effective health-promoting programmes (Spear & Kulbok, 2001). Developers of appropriate health promoting programmes, need to consider critical and antecedent variables to the risk factors, while the objective of the health promoting programmes are intended to reduce the risk factors and improve community programmes and services that will support the proposed programmes (Kemper et al., 1999). The heightened adverse health effects of many risk behaviors for adolescent women and the unique risks associated with being female point to the need for gender-specific prevention efforts. Prevention efforts that do not specify gender risks leave adolescent women at even greater risk. Furthermore, to be effective, prevention programmes need to further recognize that the motivations for engaging in risk behaviors may differ by gender.

The overall objective of the study was to identify the prevalence, patterns and knowledge of health-risk behaviors among black female adolescents in the

Strand. In addition, factors, influencing their involvement in these health risk behaviours were identified.

1.3 PURPOSE OF THE STUDY

The purpose of this study was to better understand health risk behaviours among black female high school learners in the designated research locale of the Strand. The method of inquiry in the study was a mixed method sequential explanatory strategy. The priority was given to the quantitative data collected by means of self administered questionnaires to determine the prevalence and patterns of health risk behaviours among black female learners in the Strand. Qualitative data was collected by means of focus groups to assist in explaining and interpreting the findings of the quantitative data with the integration of the two methods during the interpretation phase of the study.

For the purpose of this study, the following racial categories have been used: "African Black", "Coloured", "White" and "Indian". The "Coloured" population group is a population of mixed ancestry i.e. Afro-Euro-Malay-Khoisan ancestry (Temple, Steyn, Hoffman, Levitt and Lombard, 2001). The race/ethnicity variable was based on the former government's classification system (i.e. Black, Coloured, White and Indian/Asian). Although these designations continue to influence the schools that children go to, the communities they live in, and their socio-economic status, the author acknowledges that using "racial" labels is ill conceived. Ellision, De Wet, Ijsselmuiden and Richter (1996) also warn that there

are dangers of analyzing data by race classification because the groups do not have anthropological or scientific validity. However, these authors stated, that there are differences among the groups for many indicators of health, mediated by political and economic factors. Prior to 1994, fewer resources and funding had been allocated to the black population in South Africa. The inadequacies and inequalities in the system of "apartheid" reflected and reproduced the socio-economic disadvantagement that was experienced by the disenfranchised racial groupings. Therefore in this study the use of the race/ethnicity refers explicitly to the social conception of race.

1.4 AIMS OF THE STUDY

The specific aims of the study were:

1. To establish the prevalence and patterns of health risk behaviours among black female high school learners in the Strand:
    (a) To establish the prevalence and patterns of smoking among black female high school learners in the Strand.
    (b) To establish the prevalence and patterns of alcohol use among black female high school learners in the Strand.
    (c) To establish the prevalence and patterns of drug use among black female high school learners in the Strand.
    (d) To establish the prevalence and patterns of violence related behaviours among black female high school learners in the Strand.

(e) To establish the prevalence and patterns of sexual risk behaviours among black female high school learners in the Strand.

(f) To establish the prevalence and patterns of physical inactivity among black female high school learners in the Strand.

2. To establish if there are significant differences in the incidence of specific health risk behaviours between various groups (i.e. "Coloured" and "African Black"; learners in Grade 8 to 11; learners aged 13 to 18 years; learners reporting religious affiliation or not; and learners having knowledge of the consequences of health risk behaviours or not).
3. To identify the antecedent and maintaining factors influencing the involvement in these behaviours.
4. To identify the sources/persons to whom learners turn for advice about their engagement in specific health risk behaviours.
5. To inform intervention development.

1.5 SIGNIFICANCE

Literature underscores that adolescent girls and boys are vulnerable to an array of risks that may compromise their present and future health and development. Some of these risks are more prevalent for girls, such as sexual victimization. The negative consequences of some risk behaviors are particularly risky for adolescent girls. The motivation to engage in risk behavior may stem from different reasons for adolescent boys than girls. It is therefore important for researchers to examine these risk behaviors among adolescents in general and

adolescent women in particular. By better understanding the incidence of risk behavior, the motivations for engagement in risk behavior, and the consequences for development, more effective multi-dimensional prevention efforts may be developed.

In the 1st South African National Youth Risk Behaviour Survey 2002 (Reddy et al., 2003), the authors recommended that determinant studies should be undertaken of all behaviours that place young people at risk, to complement the national prevalence study. Reddy et al. (2003) further recommended localized studies be conducted to assist in designing provincial and district level intervention programmes as the data of the 1st South African National Youth Risk Behaviour Survey is useful for macro-level policy and planning but not for local level variations.

Health promotion has become an increasingly important part of health and medical care. Health professionals generally focus primarily on change processes that affect general well-being. Public health specialists (e.g. physiotherapists) are involved in teaching or educating, advocating, and administering health-change programs at the individual, organizational, or community level (Huddleston, Mertesdorf and Araki, 2002). The physiotherapist is often part of a multi-disciplinary team. Physiotherapists are well placed to play a vital role in health promotion, by accepting the challenge identified in the Ottawa Charter in 1986, to go beyond the physiotherapist/patient partnership

and, in turn, to address issues pertinent to groups, communities and societies (Copeland, 1999). The role of these physiotherapists should thus be broader than the provision of treatment to women with health problems. Physiotherapists and physiotherapy students are increasingly participating in community-based issues of alcohol and drug abuse as well as violence and sexuality.

1.6 DEFINITION OF TERMS

Adolescence: Is generally described as a transitional phase of development that begins at the onset of puberty and continues into early adulthood (Spear & Kulbok, 2002).

High school learners: High school learners are learners aged 13-18 years who attend a high school.

Health risk behaviours: Are activities that can damage one's health and well-being (Zweig et al., 2001)

Gender: Can be defined as the characteristics that society ascribes to biological sex – the role expectations, and appropriate behaviours assigned to girls and boys (Amora et al., 2001).

Mixed methods: Mixed methods investigations involve integrating qualitative and quantitative data collection and analysis in a single study (Creswell et al., 2004).

Sequential exploratory design: This design is characterized by the collection and analysis of quantitative data followed by collection and analysis of qualitative data, and the two methods are integrated during the interpretation phase of the study (Creswell, 2003).

1.7 ABBREVIATIONS

The following abbreviations have been used in the thesis:

AIDS:	Acquired Immune Deficiency Syndrome
CDC:	Centre for Disease Control and Prevention
HBM:	Health Belief Model
HIV:	Human Immunodeficiency Virus
MRC:	Medical Research Council of South Africa
SAHR:	South African Health Review
SCM:	Social Consensus Model
WHO:	World Health Organization
YRBSS:	Youth Risk Behavior Surveillance System

1.8 OUTLINE OF THESIS

Chapter one includes the rationale, aims and significance of the study. The overall objective of the study was to identify the health-risk behaviors among black female high school learners in the Strand. A basic definition and description of the mixed methods approach is given.

Chapter two presents a review of relevant literature to understand the need for the study. It focuses on the period of adolescence, overview of adolescent health, and the prevalence and consequences of health risk behaviours among adolescents. The health risk behaviours included tobacco use, alcohol and drug use, sexual risks, physical inactivity and behaviours that contribute to violence. The theoretical orientations guiding adolescent health research are also presented.

Chapter three considers the methodological issues relevant to the study. It provides an overview and rationale for the methodology used in the study. Aspects discussed in this chapter includes, but are not limited to, research questions, study sample and data analysis.

Chapter four contains the results of the statistical analysis of the quantitative data that attempted to answer the hypotheses stated in chapter 3.

Chapter five presents the results of the content analysis of the focus groups. The thematic analysis of the transcripts of the focus groups yielded five main themes. These themes that emerged are described and verbatim quotes are used to illustrate them.

Chapter six presents an integrated discussion of the results presented in the preceding two chapters. This chapter is organized so that the discussion follows a thematic approach rather than a discussion of individual research questions.

Chapter seven draws conclusions based on the study. It also attempts to make recommendations based on the study. The limitations of the study are also outlined.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter gives an overview of adolescence and adolescent health. The available literature on the prevalence and consequences of health risk behaviours among adolescents are reviewed. The specific health risk behaviours reviewed, include tobacco use, alcohol and drug use, sexual risks, physical inactivity, and behaviours that leads to violence. The theoretical orientations guiding adolescent health research are also presented.

2.2 OVERVIEW ON ADOLESCENCE

Adolescence is a unique biological and psychosocial stage of the life cycle, distinct from both childhood and adulthood. Adolescence is generally described as a transitional phase of development that begins at the onset of puberty and continues into early adulthood (Spear & Kulbok, 2001). According to Jessor (1984) adolescence cannot be easily defined according to age, physical, or psychosocial development, as developmental tasks tend to overlap.

The adolescent years are a time of rapid growth and development in which there is a great deal of change taking place, physically, socially and

emotionally (Stanton, Willis and Balanda, 2000; DiClemente, Wingood, Crosby, Sionecin, Cobb, Harrington, Davies, Hook and Oh, 2001; Reininger, Evans, Griffin, Valois, Vincent, Parra-Medina, Taylor and Zullig, 2003; Washburn-Ormachea, Hillman and Sawilowsky, 2004). This is a time in the life-span when exploration and experimentation are developmentally normal and preparatory to the commitments of adulthood (Joffe, 2000; Cheng, Wright, Fields, Brenner, O'Donnel, Schwarz and Scheidt, 2001; Irwin, Scott and Cart, 2002; Peltzer, 2003). This is also the period in which these young individuals face the tasks of establishing self-identity and interpersonal bonds that extend beyond the family (Burt, 2002). According to Burt (2002) these include partnering, learning how to handle their growing sexual maturity and developing the capacity for economic viability. Adolescents are particularly influenced by social factors as they attempt to develop a sense of identity (Flisher, Ziervogel, Chalton and Robertson, 1993b; Fullerton and Ursano, 1994). Few developmental stages are distinguished by so many changes at so many varied levels as adolescence, which explains the increased attention paid to early adolescence as a time when problem behaviours commence.

How and when young people experience these changes vary greatly, depending on their circumstances. Today's adolescents and young people have diverse experiences given the different political, economic, social and cultural realities they face in their communities. The adolescent's family, peers, neighbourhood environment and school can thus either help them to

complete their developmental tasks (i.e. establishing or self-identity and interpersonal bonds) or they can pose significant barriers that many youth will not be able to overcome on their own (Burt, 2002). Catalano and Hawkins (1995) suggested that the adolescent's neighbourhood offer pervasive opportunities to engage in problem behaviors and little to help adolescents resist them.

However, research has highlighted the fact that just as there are factors in a youth's environment that will increase the probability that youth will engage in risky behavior; there are also factors that may be able to protect them (Reininger et al., 2003; Cowen & Work, 1998). These authors' idea of protective factors grows out of work that focuses on children who seem to do well despite living in circumstances that expose them to considerable risk. Numerous studies have demonstrated the human beings' capacity to overcome extreme adversity and to show positive adaptation, a phenomenon described as resilience (Schoon & Bynner, 2003; Luther, Cicchetti and Becker, 2000; Masten, Best and Garmezy, 1990). Adversity can encompass genetic, biological, psychological or socio-economic factors that are associated with increased risk. Examples of resiliency factors include involvement in structured activities, parental boundary setting, religious commitment and adult mentors (Jessor, Boss, Vanderryn, Costa and Turbin, 1995; Greene, 1998).

Adolescence has frequently been defined as a critical juncture in the formation of a mature understanding of the self, including one's gender identity (Abrams, 2003; Archer 1992). According to Amaro et al. (2001) gender can be defined as the characteristics that society ascribes to biological sex – the social roles, expectations and appropriate behaviours assigned to girls and boys. Abrams (2003) stated that gender identity is constructed in relation to other equally important axes of differences such as race and class, and that these categories in turn inform gender. She further argues that when reviewing the literature, it is suggested that compulsory femininity and narrow gender role possibilities introduce both psychological and emotional barriers to young women's confidence, their psychological well-being and their self-esteem. Adolescents learn the social and gender norms that prevail in their communities. Throughout much of the world, girls and boys are treated differently by families and societies. Amaro et al. (2001) also felt that the ways by which a society and culture outline roles for women and men, shape the ways they view themselves, and others view them, and the ways that opportunities will be provided or denied based on biological sex and the meaning ascribed to that by society. Girls often disproportionately faces privation, lack of opportunity and lower levels of investment in their health nutrition and their education (Leach, 1998; Miller, 1997) Thus gender-based discrimination usually continues in adolescence and is often still a constant feature of adulthood.

2.3 THE HEALTH STATUS OF ADOLESCENTS

Unlike the very young child and the elderly, adolescents suffer from few life-threatening conditions. Adolescence appears to be one of the healthiest periods of the life course with lower rates of morbidity and mortality due to disease. (Call, Riedel, Hein, McLoyd, Petersen and Kipka, 2002; Burt, 2002). However, adolescence is also a critical development period with a greater degree of exploration and experimentation than those of other age groups. The potential for risk taking during adolescence is thus greater with long-term implications for the health and well being of the individual and for the society as a whole. According to Geckova, Tuinstra, Pudelsky, Kovarova, Van Dijk, Grotthoff and Post (2001) and Muscari (1999) adolescence is also the period when young people establish concepts, attitudes and beliefs that may have long-term influences on their health. According to Holmberg and Berg-Kelly (2002), Irwin (2003), and Rail, Stanton, Wu, Li, Galbraith, Cottrell, Pack, Harris, D'Alessandri and Burns (2003), the adolescent period is thus extremely important from a public health point of view. Michaud (2003) alerted us to the fact that although somehow different in scale and scope, the main public health problems adolescents' faces around the world are quite similar in nature.

The narrow definition of health based on morbidity and mortality ignores the underlying cumulative impact of adolescent's behaviours and experiences, which can create a burden of health problems that will be manifested later in

life. Some of these risk taking behaviours include smoking, use of other addictive substances and unprotected sexual activity. If one looks at the broad definition of health used by the World Health Organisation (1978), which takes into account adolescents' physical, social and psychological well-being, it becomes clear that adolescents' health is impacted by every dimension of society. The association between socio-economic status and health has been well documented (Frank & Musterd, 1994; Adler & Newman, 2002; Bradley & Corwyn, 2002; Abernathy, Webster and Vermeulen, 2002; Lawson et al., 1999). Socio-economic status may predict an adolescents' well being, since it plays a key role in determining whether someone will have access to education and housing and whether they will be exposed to violence, delinquency and adverse emotional health.

Certain health habits formed during adolescence have long-term negative consequences (such as smoking tobacco products, use of other addictive substances, or sexual activity without protection from sexually transmitted diseases including AIDS). These do not produce morbidity or mortality in adolescence itself but the effects and the costs develop over a lifetime (Wyrick, Wyrick, Bibeau and Fearnow-Kennedy, 2001; Burt, 2002; Kulbok and Cox, 2002). When evaluating existing South African data on behaviours which place young people at risk, it is clear that young people use alcohol, tobacco and other drugs, engage in unprotected sex, have unhealthy dietary behaviours and are both perpetrators and victims of violence (Coetzee, 2003;

Flisher, Parry, Evans, Muller and Lombard, 2003; Madu and Matla, 2003; Peltzer, 2003; Peltzer and Phaswana, 2001).

2.4 HEALTH RISK BEHAVIOURS

Most adolescents engage in several health-risk behaviours before reaching adulthood. Health risk behaviours are activities that can damage one's health and well-being. (Zweig, Lindberg and McGinley, 2001). However, health risk behaviours may in part reflect a normative stage of adolescent development. Topolski, Patrick, Edwards, Huebner, Connel and Mount (2001) and Engels and ter Bogt (2001), suggest that the health choices made by adolescence may just be another example of growing independence characterized by trying on adult roles and behaviours. Carr-Greg, Enderby and Grover (2003) also propose that healthy risk-taking is a positive tool in an adolescent's life for discovering, developing and consolidating his or her identity.

Carr-Greg et al. (2003) stressed that it is the extent to which adolescents engage in these health-risk behaviours that are of increasing public health concern. Bell, Fortuin and Sun (2002) agrees with this when they state that more important than involvement in risky behaviours is the extent to which risk behaviours are disruptive and problematic for youth. Klein & Matos Auerbach (2002) and Bennet & Bauman (2000) also expressed concern that adolescent morbidity and mortality are more often due to preventable causes

and to risky behavioural choices than to "natural" causes. Of further concern to these authors is the fact that these risky behavioural choices also have repercussions that last into adulthood. This is emphasized by the claim of the Centers for Disease Control and Prevention in the USA that a mere six behaviours are the major contributing factors in the most serious health problems for adults and adolescents and all are preventable (Muscari, 1999). These six behaviours are behaviours resulting in injuries, drug and alcohol use, sexual behaviour, diet, use of tobacco and physical inactivity.

Several authors (Jessor, 1991; Brener and Collins, 1998; DuRant, Smith, Kreiter and Krowchuk, 1999; Topolski et al., 2001) argue that health risk and problem behaviours tend to cluster among adolescents. Many studies suggest that where behaviours co-occur, it is health-compromising behaviors in particular (e.g. substance abuse or heavy drinking) rather than health-promoting behaviours (e.g. use of seat belt or regular exercise) (Mott & Haurin, 1988; Raskin-White & Johnson, 1988; Senf & Price, 1994). Jessor (1991) further argues that an early age of onset of health risk behaviours is associated with an increased likelihood that adolescents will engage in multiple risk behaviours as they progress through adolescence. It is thus clear that in order for research to contribute to the prevention of health-risk behaviours among adolescents, what needs to be empirically determined is the co-occurrence of specific health-risk behaviours and the variable distribution of multiple risk behaviours by demographic factors.

2.4.1 SUBSTANCE USE

Substance use among youths is a worldwide epidemic. Substance use has been identified as constituting a major risk to adolescent health. According to Gruskin, Plafker and Smith-Estelle (2001) adolescents start to use substances at early ages, and they report many different reasons for using them. Several other studies have also found that an early age of onset of substance use is associated with engaging in other health-risk behaviours during middle and late adolescence (Warren, Karrn, Small, Santeli, Collins and Kalbe, 1997; Garofola, Wolf, Kessle, Palfrey and DuRant, 1998; DuRant, Krowchuk and Sinal, 1998; DuRant et al., 1999).

In the International Classification of Diseases (1992), the harmful use of substances is defined as "a pattern of psychoactive substance use that is causing damage to health". The damage may be physical or mental". Gruskin et al. (2001) argue that virtually all use is harmful in some way. These authors further express concern that some substances like cannabis, with a low acute toxicity, is often discussed together with more toxic, physically addictive substances such as cocaine, and that alcohol on the other hand is often completely ignored.

Recent evidence form the World Health Organization suggests that rates of smoking, alcohol use and drug use are on the rise, particularly in the developing world and among adolescents (Hindin, 2003). Wyrick et al. (2001) stated that the

health-related consequences specific to substance use include, but are not limited to, increases in health care costs, reliance on social welfare, and increased incidence of crime, motor vehicle crashes and premature deaths.

Smoking

There are approximately 1.1 billion smokers in the world today, representing about one-third of the global population aged 15 years and over. Of these, 800 million are in developing countries (Jha and Chaloupka, 1999). Between 80% and 90% of adults who are regular smokers started smoking before 18 years of age (US Department of Health & Human Services, 1994; Alexander et al., 2001; Call et al., 2002). According to Őzcan and Őzcan (2002) it is estimated that worlwide, between 14 000 to 15 000 children and young people start smoking per day. This rate increases to 68 000 to 84 000 per day in middle- and low-income countries.

Tobacco use among adolescents is considered an area of considerable public health concern (Upadhaya, Drobes and Thomas, 2004; International Clinical Epidemiology Network, 2002; Unger and Rohrbach, 2002; Call et al., 2002; Teall & Graham, 2001). According to the International Clinical Epidemiology Network (2002) one third to one half of young people who experiment with cigarettes become regular smokers, most of them within one year. Most of young people are influenced by advertising or adults and they perceive smoking as sophisticated or fun. It must be noted that the motivation to engage in smoking

differs from adolescent girls and boys. Research indicates that adolescent girls may use smoking as a weight control strategy (French, Perry, Leon and Fulkerson, 1994; Sarigiani et al., 1999; Crocker, Kowalski, Kowalski, Chad, Humbert and Forrester, 2001). Camp, Klesges and Relyea (1993) pointed out that approximately 37-39% of female adolescent smokers used smoking as a means to control weight. Gender differential patterns have also been noted in other psychosocial correlates of smoking. According to Killen, Robinson and Haydel (1997) higher levels of sociability were found to influence smoking onset in girls. Sarigiani et al. (1999) also highlighted the fact that adolescent girls are more responsive to cigarette advertising than boys. They suggested that adolescent girls are more attentive to image-oriented tobacco advertising, which portray smoking as desirable lifestyle behaviour.

Jonhston, O'Malley and Bachman (2002a) estimated that 17% of US high school seniors smoke daily with more than one-third of all high school students reporting some form of recent tobacco use. According to MacDonald and Wright (2002) by grade 10, nearly two-thirds of Canadian adolescents have tried smoking. In Australia similar prevalence of smoking are present. Snow and Bruce (2003) observed a prevalence rate of 49.6% for cigarette smoking of which 15.8% could be classified as current smokers and 33.8% were experimental smokers. The smoking prevalence in developing countries is no better than their developed counterparts. Őzcan and Őzcan (2002) found that 24% of their sample of middle and high school students in Ankara, Turkey was classified as smokers. In a

nationally representative study on tobacco use among school going adolescents in South Africa, Swart, Reddy, Pit and Panday (2001) found that 46.7% of the learners reported ever having smoked cigarettes and 28.0% of them reported being current smokers.

The WHO indicates that pronounced gender differences in tobacco use are seen throughout the world (The Global Youth Tobacco Survey Collaborating Group, 2003). By 1998, men were four times more likely to smoke than women. Historically, cigarette smoking was much more acceptable for men than for women (French et al., 1994). These authors further stated that up until the 1920's cigarette smoking by women was socially discouraged and not normative but with changing women's roles, smoking in women became socially accepted. According to Saloojee (2000) the addiction has spread from men to women in high-income countries and then to men in low-income regions, the future growth markets for the tobacco industry thus being women in low-income countries. The "Kobe Declaration", announced at the World Health Organization's International Conference on Tobacco and Health, expressed concern in 1999 that there were already 200 million women smokers worldwide (Reuters Medical News, 1999). Another concern expressed at this conference was the fact that tobacco companies have launched aggressive campaigns to recruit women and girls worldwide so that by the year 2025, the number of women smokers is expected to almost triple.

Tobacco use in South Africa is an ever-increasing health problem and the prevalence of smoking is increasing like in other developing countries. Steyn, Fourie and Bradshaw (1992) stated that South Africa is yet to experience the full impact of the epidemic of smoking related deaths due to the tobacco industry targeting the youth and developing populations in marketing their products. In spite of increasing evidence that smoking cigarettes have an adverse effect on health, it still remains an important preventable determinant of morbidity and mortality in South Africa (Madu and Matla, 2003; Yach and Parry, 1995; Swart, Reddy and Steyn, 1998). In South Africa about one in nine deaths was shown to be tobacco related in the early 1990's (Yach, et al., 1992). According to Swart et al. (1998) the highest rate of tobacco-related deaths (1 in 5) occurs in the Province of the Western Cape. The high smoking rates were also reflected in the 100% increase in lung cancer mortality rates among 'coloured' men and the 300% increase among 'coloured' women over the past two decades in the Western Cape.

Tobacco use is on of the chief preventable causes of mortality and morbidity throughout the western world (Pletcher and Schwarz, 2000; Global Youth Tobacco Survey Collaboration Group, 2003; Alexander et al., 2001; Romer and Jamieson, 2001; MacDonald and Wright, 2002). The WHO estimated that tobacco was the cause of 3 million deaths globally in 1993 (WHO, 1996; Global Youth Tobacco Survey Collaborating Group, 2003; Call et al., 2002) and projected that it would cause 10 million deaths per annum by 2025. The WHO

further stated that only two major global causes of death are increasing rapidly, deaths from AIDS and from tobacco, and if unchecked, tobacco use will be the leading cause of premature death worldwide by 2030.

The relevance of smoking as a risk factor of the most important and current causes of illness and death has been well established in the past decade (Ariza-Cardenal and Nebot-Adell, 2002; MacDonald and Wright, 2002). Negative health consequences of smoking in adults have been well documented, but data also support negative health consequences for adolescents such as respiratory problems and early development of cardiovascular risk (US Dept of Health & Human Services, 1994). MacDonald and Wright (2002) suggested that the health effects of smoking do not appear to affect young men and women equally. Several researchers (Pope, Ashley and Ferrence, 1999; Sarigiani et al., 1999; Richmond, 2003) have identified a number of health consequences of smoking unique to women. Among these is the fact that the growth of young women's lung function is more severely affected by smoking than that of their male counterparts. Life expectancy is also lower for women than men even if they have similar patterns of tobacco use, inhalation and age of initiation. Pope et al. (1999) also recognized that female smokers experience sex-specific risks related to menstrual irregularities, impaired fertility, and earlier menopause. The epidemic of lung cancer in women followed the widespread adoption of cigarette smoking (Ernster, 1994). This author further highlighted the fact that many

epidemiological studies demonstrated that the risk of lung cancer increases with the number of cigarettes smoked daily, and with earlier age of initiation.

Of concern is the fact that cigarette smoking in adolescence represents a crucial entry-point to illicit drugs (Ennet, Tobler, Ringwalt and Flewelling, 1994). Őzcan and Őzcan (2002) also stated that tobacco is often the first drug used by young people who then go on to use alcohol and illicit drugs. This is also acknowledged by Johnson et al., (2002a) and Flemming et al. (2002) who suggested that because of the clustering of smoking with other risk behaviours, it to be a risk factor for several health-compromising behaviours. Swart et al. (1998) and Teall and Graham (2001) also stated that the earlier adolescents begins to experiment with cigarettes, the greater the severity and persistence of their subsequent involvement with illicit drugs.

Alcohol use

Alcohol has been consumed in human populations for centuries, but the considerable and varied adverse health effects have only been characterized recently (Rehm, Gutjahr and Gmel, 2001). According to the World Health Report 2002 (WHO, 2002), global alcohol consumption has increased in recent decades, with most of this increase occurring in developing countries. Alcohol use is also common in South Africa and 45% of adult men and 17% of adult women reported that they consumed alcohol currently (South African Health Review, 2000).The high social acceptability of alcohol use and the widespread experimentation with

alcohol during adolescence are also great areas of concern (Ellickson, Tucker, Klein and McGuigan, 2001).

Eaton, Forthofer, Zapata, McCormack, Brown, Bryant, McDermott and Reynolds (2004) also emphasized that alcohol use continues to be one of the most significant risk behaviours engaged in by adolescents. Alcohol use continues to grow in popularity in the youth culture (Eaton et al., 2004). Of great concern is the results of recent analysis of the National Longitudinal Alcohol Epidemiology Survey in the USA that indicated that early age of drinking onset is associated with frequent heavy drinking in life (Hingson, Heeren, Jamarka and Howland, 2000). Epstein, Griffin and Botvin (2004) also expressed concern that the allure of alcohol for adolescents' remains strong and widespread alcohol use among adolescents remain common. This is revealed by the results from studies done worldwide. In the 2001 Monitoring the Future Survey (Johnston, O'Malley and Bachman, 2002b) 63.5% of tenth graders and 73.3% of twelfth graders reported drinking alcohol in the past year in the United States.

A survey in 1996 of nearly 30 000 Australian secondary school students between the ages of 12 and 17 years highlighted similar patterns. In this survey a fifth of boys and a quarter of girls had not tried alcohol by the age of 12 (White, Hill and Letcher, 2000). In nationwide surveys of Japanese adolescents, 60% of junior high school students and 70% of senior high school students reported having drinking experiences in 1996 (Takara and Wake, 2003). According to Peltzer

and Phaswana (2001) there is also much concern in South Africa about alcohol misuse among young people. Flisher, Parry, Evans, Lombard and Mueller (1998) found that 50.2% of males and 31.9% of female secondary school pupils reported alcohol use in the past month.

Roche and Deehan (2002) stated that there has been growing evidence in recent years that the levels and patterns of women's alcohol use have undergone substantial change. Female alcohol consumption has been noted to be steadily on the rise, particularly among women in younger age groups. These changes in women's levels and patterns of drinking are an international phenomenon (Bobak, McKee, Rose and Marmot, 1999; Neve, Diederick, Knibbe and Drop, 1993). Epstein et al. (2004) stated that it must be noted that over the course of adolescence, girls and boys may initiate or increase alcohol consumption for different reasons. Research has indicated that girls tend to have lower overall self-esteem than boys. There is also evidence that self-esteem is an important factor in the epidemiology of girls' alcohol use (Bolognini, Plancerel, Bettschart and Halfon, 1996; Epstein et al., 2004; Chub, Fertman and Ross, 1997). Kumpulainen and Roine (2002) also found in their study on Finnish adolescents, that for girls the probability of being a heavy drinking more than doubled due to feelings of ineffectiveness or low-esteem.

Alcohol use not only has a negative impact on the health sector, but also impacts negatively on the family and society in terms of crime and negative effects on

economic and social development (Parry, 2000). According to the South African Health Review (2000) there are many signs that alcohol has a major detrimental effect on health in South Africa. Alcohol use among adolescents is also associated with a large number of negative consequences. In a study done by Ouellette, Gerrard, Gibbons and Reis-Bergan (1999) 83.8% of adolescents who reported drinking, said that they had experienced at least one alcohol-related problem in the past twelve months. These included hangovers, getting into arguments, behaving in ways they regretted and being unable to remember part of the evening. Of greater concern however, are the alcohol-related motor vehicle accidents among adolescents. Eaton et al. (2004) also expressed concern around the negative outcomes associated with adolescent alcohol use, specifically the risk of accidental death largely resulting from motor vehicle crashes. This is emphasized by the South African Health Review (2000), which showed that almost 50% of the victims of homicide, and fatal traffic collisions have raised blood alcohol levels. The use of alcohol has often been cited as a potential precursor to other risky behaviours. Homicide, suicide, sexually transmitted infection, teenage pregnancy, juvenile delinquency, other criminal behaviour and impaired physical, social and mental development, are some of the negative outcomes associated with adolescent alcohol use (Windle, Shape and Burkstein, 1996; Flisher, Ziervogel & Chalton, 1996; Sutherland and Shephard, 2001; Foster, Vaughan, Foster and Califano, 2003; Parry et al., 2004).

There is a substantial burden of illness associated with alcohol use among women. According to various researchers (Roman, 1988; Frezza, diPadova, Pozzate, Terpin, Baraona and Liebner, 1990) physical problems are experienced earlier in female drinking careers than males. They ascribed this in part to the fact that women have a lower body weight than men, less body water and a higher percentage of body fat. Furthermore women metabolize alcohol at a slower rate than men, so alcohol may remain in the tissue longer. In addition, Saunders, Davis and Williams (1981) stated that there is evidence that for equivalent doses of alcohol, women are more vulnerable than men to tissue damage and the onset of certain diseases such as cirrhosis of the liver and physical alcohol dependence. Alcohol use by women is also thought to be associated with an increased risk of osteoporosis and bone fractures (Baron, Bachman and Weiderpass, 2001). Women can also be more vulnerable to physical risks through violence or abuse when intoxicated (Jacobs, 1998).

Drug use

Drug use among young people is a widespread problem with serious health and social consequences and it is a matter of continuing public concern (Gil, Wagner and Tubman, 2004; Ellickson et al., 2004). According to the WHO (1998) illicit drug use among adolescents could be a reflection of youthful exploration at risk taking. Bonomo (2003) however argued that although drug use may be a manifestation of experimentation in adolescent development, it still have serious implications threatening their current and future well-being. Numerous

researchers have established that initiating drug use at an early age increases the risk of experiencing problems with drug use by late adolescence and young adulthood (De Wit, Hance, Offord and Ogborne, 2000; Grant and Dawson, 1998; Gil et al., 2004). Ellickson et al. (2004) also suggest that initiation of drug use before age 15 significantly increases the risk for later heavy drug use as well as dependence or abuse of alcohol and other illicit drugs.

Drug use has become globalize and is increasingly affecting developing countries (United Nations International Drug Control Programme, 1997). According the World Drug Report by the United Nations, the rapid social and cultural changes which developing countries are experiencing have created a breeding ground for the increased use of drugs. It becomes evident that the young generation in developing countries makes up a market potential that may ensure profits a time when consumption in the developed world is leveling out.

Adolescents' use of illicit substance use is high. Data from the 2001 Monitoring the Future Study found that large numbers of high school students reported illicit drug use (41.4%) during the past year (Johnston, O'Malley and Bachman, 2002b). Madu and Matla (2003) found that the prevalence of drug use in their sample of high school students in the Northern Province of South Africa, of 12.0% less than that of their counterparts in the United States of America. Flisher et al. (1998) however found a prevalence of drug use of 20.4% among adolescents in the Western Cape of South Africa. The difference in the above

mentioned studies could be accounted to the fact that the first authors study took place in a province that is predominantly rural.

The economic costs related to drug use are increasing (Amaro et al., 2001). These authors further recognized that part of the economic cost is observed in significant mortality, as well as health, educational, and social problems among youth. Hawkins, Catalono and Miller (1992) pointed out that in addition to intrapersonal, psychosocial, and biogenetic factors, socioeconomic status, culture and society are some of the most influential variables for drug use among adolescents. Numerous studies have interpreted that certain risk factors might be more important for girls, such as negative self-image or self-esteem, weight concerns, physical and sexual abuse, early onset of puberty, higher levels of anxiety, depression and boyfriend's drug use (Crump, Lillie-Blanton and Anthony, 1997; Sarigiani et al., 1999; Tschann, Adler, Irwin, Millstein, Turner and Kegeless, 1994; Amaro and Zuckerman, 1990).

Amaro et al. (2001) expressed concerns that trends indicate an increased initiation and use of drugs among young girls, and raise the question whether the strategies for prevention are producing the needed results for girls. According to Johnston et al. (1999) the decline in drug use among youth since the late 1970s and early 1980s is not the same for girls and boys. These authors stated that the initiation rate for some substances have increased more among girls, and particularly girls at earlier ages. The rate of marijuana initiation has also

increased substantially for girls from the early 1960s through the mid-1990s. Finally the mean age of first use of most drugs among girls has decreased since the mid-1960s. Johnston et al. (1999) also noted that the age-specific rates of initiation have increased faster for girls than boys.

2.4.2 BEHAVIOURS CONTRIBUTING TO VIOLENCE

The National Center for Injury Prevention and Control in the United States of America defines violence as "threatened or actual physical force or power initiated by an individual that results in, or has a high likelihood of resulting in, physical or psychological injury or death (Centers for Disease Control and Prevention, 2002a). The World Health Assembly declared violence as a major public health issue in 1996 (Krug, Mercy, Dahlberg and Zwi, 2002). To follow up on this resolution, the WHO released the first World Report on Violence and Health in 2002. The designation of violent and abusive behaviour as a public health priority in the USA is also evidenced by its inclusion in the Healthy 2010 objectives (US Department of Health and Human Services, 2000). In these objectives, intimate partner violence is recognized as an important sub-domain of such behaviour. The World Report on Violence and Health estimated that 1.6 million people died from violence in 2000, corresponding to 28.8 per 100 000 population. In the 48 population-based studies from around the world used in the report, between 10% and 69% of women reported having been physically assaulted by an intimate partner during their lifetime and about 20% of women and 5-10% of men reported having been sexually abused as children.

International and South African data suggest that violence is a problem of epidemic proportion among the youth (Soriano, Rivera, Wiliams, Daley and Reznick, 2004; Burrows, Bowman, Matzopoulos and Van Niekerk, 2001). Price, Telljohann, Dake and Marsico (2002) stated that youth now are more likely than ever to be confronted with the daily reality of an omnipresent model of physical aggression and violence. For the past two decades homicide has been the second leading cause of death among 15-24 year olds in the USA (CDC, 1997; Cheng et al., 2001; Sweatt, Harding, Knight-Lynn, Rasheed and Carter, 2002). However, Cheng et al. (2001) cautioned that although the number of youth dying from violent injuries is high, nonfatal injury rates caused by violence and risky behaviour are higher for adolescents than for any age group. Soriano et al. (2004) alerts us to the fact that violence may involve a youth victim, a youth perpetrator or both.

According to Krug (2000) and WHO (1999b), the homicide rate is eleven times higher for African countries than the homicide rate for high-income countries. In a report by the National Injury Surveillance System in South Africa, Peden (2000) reported that injury was the major cause of death among youth and 58% of injury deaths were due to homicide. It has been noted by several authors (Peltzer, Mashego and Mabeba, 2003; Jewkes, Levin and Penn-Kekana, 2002; Flisher et al., 1993b) that South African society is very violent. Jewkes et. al. (2002) suggested that "decades of state-sponsored violence and reactive community insurrection, have contributed to a situation in which for many people physical

violence is a first line strategy for resolving conflict and gaining ascendancy". Violence, however, is not evenly distributed across all neighbourhoods and demographic groups. Evidence suggests that it occurs at a higher rate in low-income neighbourhoods, disproportionately among the youth (Sweatt et al., 2002; Soriano et al., 2004).

Women and girls are not immune to the high levels of violence in society. Women and violence has become a topic of increasing concern (Hunt and Joe-Laidler, 2001). These authors further stated that public concern has risen over the last decade, over the problems of women as victims and offenders of violence. It has been suggested by the Human Rights Watch (2001) that women and girls are often most vulnerable, particularly to violence that is either directed against women and girls because they are female, or violence that affects women and girls disproportionately.

Research on female violence over the last twenty years has shown that the most common assailant is a man known to the woman, often her male intimate (Hunt and Joe-Laidler, 2001). It is also recognized that the reach of relationship violence extends well into the world of adolescence (Howard and Wang, 2003). Research has shown that heterosexual adolescent dating relationships are often characterized by physical and sexual violence (Jewkes et al., 2002; Swart, Seedat, Stevens and Ricardo, 2002; Hird, 2000; Jackson, Cram and Seymour, 2000; Jezl, Molidar and Wright, 1996). Reported rates of physical violence

involving high school students vary from 12% (Bergman, 1992) to 59.1% (Jezl et al., 1996). For sexual coercion, reported rates among female high school students range from 14.7% (Jezl et al., 1996) to 76.9% (Jackson et al., 2000). It is clear that there are considerable variations of estimates of violence within these studies but all highlights the concern with regard to the presence of violence in adolescent romantic relationships. In intimate partner violence women are most commonly the victims. However this not to deny that males are victims too, but to a much lesser extent (Hegerty, Hindmarsh and Gilles, 2000; Silverman, Raj, Mucci and Hathaway, 2001; Howard, Qiu and Boekeloo, 2003).

Intimate partner violence is increasingly being recognized by public health experts and political leaders as a major public health concern (Clouter, Martin and Poole, 2002; Jewkes et. al., 2002; Silverman et al., 2001; Wyshak, 2000; Heise, 1998; Abbot, Johnson, McLain and Lowenstein, 1995; World Bank, 1993). It is associated with injuries and a wide range of other mental and physical health problems. Injuries that result from violence are significantly more common among females for both adolescent and adult populations and approximately 10% of intentional injuries to adolescent girls are reported to be the result of violence from male dating partners (Silverman et al., 2001). Research has shown that the health consequences of violence are far broader than death and injuries. Victims of violence are at risk of psychological and behavioural problems, including depression, alcohol abuse, anxiety, suicidal behaviour and reproductive health problems, such as sexually transmitted diseases, HIV/AIDS, unwanted

pregnancies and sexual dysfunction (Krug et. al., 2002). Another concern highlighted by Swart et al. (2002) is the fact that early exposure to intimate partner violence, will leave adolescents at risk for future incidents of violence. Several authors have stated that the experience of physical violence during adolescence is likely to represent the beginnings of unhealthy patterns of adult male-female relationships (Farrington, 1991; Bergman, 1992; Jewkes et al., 2002).

Estimates from a large-scale nationally representative survey in the United States indicated that more than 1.5 million women are physically and/or sexually abused by an intimate partner each year (Silverman et al., 2001). According to Hunt and Joe-Laidler (2001), intimate partners kill an estimated 30% of all female murder victims, a finding consistent since 1976. They further stated that women aged 12-18 experience the highest rate of victimization in homicides, sexual assaults and intimate partner violence. Hegerty et al. (2000) also stated that Victorian public hospital figures in Australia showed that 1.3% of women admitted to emergency departments are there as a result of partner inflicted injury. They further stated that in the only population-based study in Australia that investigated physical and sexual violence, it was found that 8% of women had experienced violence at some stage in their intimate relationships. In South Africa, a country of approximately 40 million people, as many as five women are estimated to be killed each week by an intimate partner (Jewkes et al., 2002). They also found a prevalence rate of 24.6% of lifetime intimate partner violence

in a cross sectional study of violence against women in South Africa. Peltzer et. al. (2003) also reported that 1 in 8 women (13%) reported having been beaten by an intimate partner.

In South Africa, gender-based violence is viewed in Government and civil society as a major problem (Usdin, Christofides, Malepe and Maker, 1998). All forms of interpersonal violence are very common in South Africa. Wood, Mofarah and Jewkes (2001) argued that violence against women has been widely neglected in health research and intervention, and more especially so in the adolescent sexual arena. They found that physical violence was a prominent feature of sexual relationships from the start of dating, during teenage years in South Africa. Sexual violence is also very common. According to Interpol (1996) the rate of reported rape to the police in South Africa is the highest amongst all the Interpol members. Jewkes et al. (2002) remarked that one of the most remarkable features of gender-based violence in South Africa is that, within certain boundaries of severity, the society is extremely tolerant of it. They further stated that this widespread tolerance often reflects the idea that the use of violence is "normal".

2.4.3 SEXUAL RISK BEHAVIOURS

Sexual behaviour is another important area in which adolescents are risking their future health trajectories. Risk factors in the area of sexual and reproductive health can affect well-being in a number of ways. Unprotected sexual intercourse

places adolescents at risk for human immunodeficiency virus (HIV) infection, other sexually transmitted diseases (STDs) and unintended pregnancy. Nahom, Wells, Gillmore, Hoppe, Morrison, Archibald, Murowchick, Wildson and Graham (2001) stated that the prevalence of sexual activity, pregnancy and STDs among US adolescents has caused much alarm. According to the WHO Report (2002) the prevalence of different sexual behaviours and characteristics varies greatly between countries and between regions. The report further stated that more than 99% of the HIV infections prevalent in Africa are attributable to unsafe sex.

One million adolescents become pregnant, and 3 million new cases of sexually transmitted diseases (STDs) occur each year in persons less than 20 years in the United States (Santelli, Kaiser, Hirsch, Radosh, Simkin and Middlestadt, 2004). In South Africa, 35% of women under 20 years of age have been pregnant or have a child (Jewkes et al., 2001).These authors and others (O'Donnel, Myint, O'Donnel and Stueve, 2003; Flisher et al., 1993c) highlighted the fact that a critical risk factor for both adolescent pregnancy and STDs is the early age at the initiation of sexual intercourse which has been associated with sexual risk behaviours including multiple sex partners and the failure to use contraceptive methods that protect against both pregnancy and STDs. Several researchers described outcomes associated with adolescent sexual behaviour from "a public concern" to a "near epidemic" (Nahom et al., 2001; Stevens, 1996; Beck and Davis, 1987).

Studies worldwide suggest that adolescents initiate sexual activity early and that alcohol and drug use is associated with it. Among middle school students, mostly aged 12 and 13 years old, in a study done in the USA, more than 13% of the students ever had sexual intercourse. In a study done in KwaZulu-Natal, South Africa, 30% of those that reported having a boyfriend / girlfriend was sexually active (Taylor, Dlamini, Kagoro, Jinabhai and de Vries, 2003). Similar findings were reported by Coetzee (2003), in a study among high school students in the Northwest Province, South Africa, where 23% of the students admitted to have had sexual intercourse during their lifetime. In the same study, 6% indicated that they had used drugs or alcohol before they had sexual intercourse. Of further concern is the fact that contraception is rarely used at sexual initiation (Jewkes et al., 2001; Eaton et al., 2004). It is thus clear that adolescents put themselves at risk for HIV infection through unprotected sex.

Fear and concern over the life altering nature of HIV and AIDS has prompted much research on adolescent sexual behaviour. Findings of studies as described in the above paragraph are alarming especially in South Africa where the HIV epidemic is one of the fastest growing epidemics in the world (Coetzee, 2003; Taylor et al., 2003). According to Taylor et al. (2003) an estimated 4.7 million people in South Africa (of a total of 40.5 million) are currently infected with HIV/AIDS. Of concern is the high incidence of HIV infection reported among younger women. Coetzee (2003) also stated that the largest growing number of infections in South Africa is found among the youth between 15 and 25 years of

age with an alarming increase among adolescent girls. In 1998, the HIV infection rate among South Africans aged 14-19 years were 21.0%, an increase of 65.4% from 1997 (Eaton, Fischer & Aaro, 2003).In the USA, the Centers of Disease Control and Prevention stated that 1 in 5 AIDS cases is diagnosed in the 20-29 year old age group and that most of these were likely to have resulted from HIV infections acquired up to 10 years earlier (CDC, 2000). These authors all stressed the importance to understand the behaviours that place youth at risk of HIV/AIDS.

Several researchers have expressed concern over the alarming increase of AIDS incidences among young women (Coetzee, 2003; Taylor et al., 2003; Ehrhardt and Exner, 2000; Piot, 2001). In the USA women are the fastest growing subgroup of AIDS cases (Ehrhardt and Exner, 2000). Piot (2001) also reported that the average infection rates among teenage girls in sub-Saharan Africa are more than 5 times higher than those among teenage boys. The author further stated that similar patterns of infection rates are seen in parts of the Caribbean, Central America and Eastern Europe.

A number of reasons are given for the higher incidence of HIV/AIDS among young women in Sub-Saharan Africa. Piot (2001) suggests that it could be accounted for by age mixing, i.e. younger women with older male sex partners. He further suggested that the rate of women's infection peaks at a young age than men's, that the age groups are a large proportion of the population, and that

those infected at younger ages tend to survive longer. Piot (2001) warns that the women's HIV vulnerability also evolve in particular from contexts in which they have little control over sex, whether as a consequence of the prevailing power relations between men and women or as a function of the economic and life choices available to them.

Wood et al. (2001) also stated that the sexual activities of young people are mostly underpinned by gender power relationships. They further stated that in their study among Xhosa-speaking adolescent women, it was revealed that they play a submissive role in their sexual relationships. Their study highlights the powerlessness and physical abuse that overshadow every aspect of adolescent women's sexual lives.

2.4.4 PHYSICAL INACTIVITY

Opportunities for people to be physically active exist in four major domains of their day-to-day lives: at work, for transport, in domestic duties or in leisure time. Physical activity has gained much attention for its role in preventing premature disease and disability (Valois, Zullig, Huebner and Diane, 2004). Scientific evidence has linked regular physical activity to a wide range of physical and mental health benefits. Travill (2003) also agreed by stating that there is vast evidence stressing the health, social and psychological benefits associated with an active lifestyle. Some of the benefits of physical activity include helping to build and maintain healthy bones and muscles, control body weight, reduce

feelings of depression and anxiety, and promote psychological well-being. According to Ferruci et al. (1999) persons who are regularly active enjoy enhanced longevity and also are at lower risk of developing myocardial infarction, stroke, cancer, respiratory disease and osteoporosis. These benefits are mediated through a number of mechanisms. In general physical activity improves glucose metabolism, reduces body fat and lowers blood pressure.

Not only is physical inactivity a major public health concern worldwide, but the public health burden of inactivity is also substantial (Marcus, King, Clarke, Pinto and Bock, 1996; Colditz, 1999; Kohl, 2001; Lindstrom, Hanson and Ostergren, 2001). The role of physical inactivity as an independent lifestyle risk factor for the development of cardiovascular disease, cancer, diabetes mellitus, obesity, depression and anxiety has been the subject of debate for a long time (Van Mechelen, 1997; Potvin, Gauvin and Nguyen, 1997). Physical inactivity can lead to conditions such as heart disease, hypertension, diabetes, osteoporosis, obesity and depression. The importance of physical activity in reducing morbidity and mortality from chronic diseases and conditions has been well established (Prat, Macera, Wang, 2000; Shepherd and Shek, 1998; Dunn, Marcus, Kampert, Garcia, Kohl and Blair, 1997; Martinson, O'Connor and Pronk, 2001). According to Martinson et al. (2001) physical inactivity is a predictor of subsequent disability in midlife and older populations. The WHO Health Report (2002) indicated that physical inactivity was estimated to cause 1.9 million deaths and 19 million DALYs globally. The report further stated that physical inactivity is also estimated

to cause about 10-16% of cases of breast cancer, colon and rectal cancer and diabetes mellitus globally.

Physical inactivity in youth is associated with other health-compromising behaviours including cigarette smoking, lower fruit and vegetable consumption, and more hours watching television (O'Loughlin, Paradis, Kishchuk, Barnett and Renaud, 1999). Heath, Pratt and Warren (1994) also stated that during adolescence, many risk factors like overweight, increased levels of blood lipids and cholesterol, increased anxiety and depression are linked to physical inactivity. Physical activity among adolescents is consistently related to higher levels of self-esteem and lower levels of anxiety, stress and high-risk health behaviours. Overweight during adolescence has been found to be a more powerful predictor of increased mortality from all causes than obesity that begins in adulthood (Rich, 1999). The findings of a study on elementary schoolchildren in multi-ethnic, low income, inner-city neighbourhoods in Montreal, Canada (O'Loughlin et al., 1999) suggested that solutions should be found to address the high levels of childhood inactivity.

Concerns about physical inactivity among adolescents have been raised in various countries. Although children and adolescents are generally more active than adults, participation in physical activity often falls below recommended levels for young people and adults alike (Yang, Telama, Leino and Viikari, 1999; Pate, Long and Heath, 1994). According to the Centers for Disease Control and

Prevention (1997a) the greatest reductions in physical activity occur during adolescence. Sallis, Simons-Morton, Stone, Corbin, Epstein, Faucette, Iannoti, Killen, Klesges, Petray, Rowland and Taylor (1992) stated that physical activity declines dramatically with age, resulting in an almost 50% decrease between ages 6 and 16 years. In a study done by Marcus and Forsyth (1999) it was revealed that nearly half of the American youth aged 12 to 21 years, was not vigorously active on a regular basis. This is the same trend in Canada, where according to the 1998 Physical Activity Monitor (2000), over 60% of Canadian youth could not be considered active enough to support a habit of lifelong activity. This is supported by Grantham, Cousineau and Bell (1998) of the Canadian Association for Health, Physical Education, Recreation and Dance, who stated that evidence clearly shows that children and youth are more inactive than ever before.

In the first nationally represented study about the prevalence of physical activity/inactivity, Reddy et al. (20030 reported that 37.5% of the learners participated in insufficient or no physical activity. In another study in a local community in South Africa, Frantz (2005) found that 32% of the learners in Belhar did not meet the requirements of being physically active for at least 30 minutes per day on seven days of the week. This author found that more female learners (36%) compared to male learners (28%) in her study were considered physically inactive. Frantz (2005) further report that clear gender differences emerged as to the learners' motivation for participation. Female learners in her

study focused on the socializing aspect and image building aspect of physical activity. She further report the learners in her study reported definite barriers that prevented them from participating in physical activity.

Physical inactivity is more prevalent among women than men and participation in physical activity by adolescents' declines steadily with age, particularly among girls (Felton, Dowola, Ward, Dishman, Trost, Saunders and Pate, 2002). Sallis et al. (1992) also noted that studies of adolescents show males to be somewhat more physically active than females. Several studies and reviews documenting the physical activity patterns of populations indicate lower levels of activity among older and female adolescents and young adults (Allison, Dwyer and Makin, 1999). Oja (1997) also noted that aging adolescent girls are particularly at high risk for inactivity. All of this is reason for concern as Yang et al. (1999) suggested that physical activity in childhood and adolescence is a prerequisite for physical activity in adulthood.

2.5 THEORETICAL ORIENTATIONS

Behavior is a multifaceted phenomenon and therefore requires properly planned intervention and education programmes that take into consideration the myriad psychosocial processes that are involved in behavior change. The uses of theories focused on psychosocial determinants of, in this case, risk behaviours, provide useful ways of evaluating these interventions. Since behavior change strategies involve a situation whereby new behaviours compete with or attempt to

replace former patterns of health-risk behaviors, understanding the way new behaviors are initiated and maintained is crucial for interventions to be successful. Since the earliest research on the relationship between perception and behaviour in the 1930's and due to the growing importance of behavioral prediction in the development of effective health promotion strategies, a variety of social cognitive models were developed in an attempt to explain how knowledge, attitudes, values and beliefs interact with one another to result in an eventual change in behaviour (Abraham, Sheeran and Orbell, 1998).

The most widely used explanatory models of behaviour initiation and maintenance are the Health Belief Model (HBM) (Rosenstock, Stretcher and Becker, 1988), the Stages of Change or Transtheoretical Model (Prochaska and Velicer, 1997), Bandura's Social Learning Theory (Bandura, 1977) and the Theory of Planned Behavior (Ajzen, 1985).

2.5.1 The Health Belief Model

The HBM is one of the oldest and most resilient of models of health education (Rosenstock, 1974). The HBM was developed in the effort to explain the wide failure of people to participate in programmes to prevent diseases, and was then later extended to explain behavior in response to diagnosed illnesses and compliance to the prescribed management regimes for the condition (Rosenstock et al., 1988). The HBM is based on the premise that perceived severity of

consequences, perceived susceptibility to consequences, and perceived benefits of preventive behavior all contribute to health behavior.

The HBM provides an excellent means to analyze forces that influence health behaviour. It also has applications in programme planning and implementation such as AIDS intervention programmes. Perceived risk, frequently posited as a necessary prerequisite to behavioral change, is a central construct in the HBM (Janz and Becker, 1984). Generally the HBM contend that individuals who recognize that their behaviour places them at risk of, for example, HIV infection, are more likely to adopt less risky behaviours than those who do not. Attempts to influence perceived risks are also implicitly included in many AIDS intervention programmes build on the HBM. Many prevention efforts have focused their resources on AIDS education for at-risk populations, assuming that increasing knowledge of AIDS transmission will lead to heightened perceptions of risk and eventually to the adoption of protective behaviours or reductions in risky behaviours (Kowalewski, Henson, Longshore, 1997). Some studies indicate that an increase perception of risk is associated with protective behavioral change (Allard, 1989; Becker and Janz, 1988; Emmonds, Joseph, Kessler, Wortman, Montgomery and Ostrow, 1986; Janz and Becker, 1984; Becker, 1974).

The HBM is thus a framework for motivating people to take positive health actions that uses desire to avoid negative health consequences as the prime motivation. The challenge that one faces when using the Health Belief Model is

to be careful not to blame the victim as the HBM stresses personal responsibility which may lead people to feel it is their fault if they cannot solve their own problems.

Despite the scientific credibility of, and the substantial research applications of the HBM, it has its critics. Amongst them are Janz and Becker (1984) who claimed that the HBM is "limited to accounting for [only] as much of the variance in an individual's health related behaviours as can be explained by his attitudes and beliefs." Others (Haefner and Kirscht, 1970) critiqued that changing beliefs about health may be enough to change actions that are prompted largely by health matters. However, these changes will be insufficient to change behaviours that satisfy a multiplicity of motives at the same time.

2.5.2 The Stages of Change or Transtheoretical Model

In more recent years, several so-called "stage theories" have been introduced (Gebhardt and Maes, 2001). From the stage perspective, the study of behaviour change is no longer limited to the phase of motivation. Behaviour is not dichotomized into either occurring or not occurring. Instead the dynamic nature of change and the importance of the time dimension in this process are underlined.

The Stages of Change or Transtheoretical model describes how individuals undergo a process of change in order to bring about a more beneficial behavioral repertoire (Prochaska and Velicer, 1997). The **pre-contemplation stage** is the

stage at which individuals do not show concern about their health-risk behaviors and do no intend to do anything about it. Typical reasons are lack of knowledge, knowledge gaps and demoralization. Individuals will only advance to the contemplation stage if they realize the pros of changing outweigh the cons. The **contemplation stage** is the stage at which individuals acknowledge their health-risk behaviors and intend to do something about it. The **preparation stage** involves the individual making a commitment to change the health-risk behaviors. Individuals believe the benefits of behavioral change will outweigh the cost but need to understand that they need more than one attempt at behavior change. The **action stage** involves the individual implementing the necessary change, placing most of their physical and emotional energies into achieving the desired behavioral change. Finally, the **maintenance stage** involves the individuals attempt to avoid a relapse. The individual's confidence increases and temptation to return to unhealthy behavior decreases. The authors of this model argue that although individuals go through each stage they will not do so in a very ordered way.

The Transtheoretical model has been applied to as many as 12 health behaviours (Prochaska, Velicer, Rossi, Goldstein, Marcus, Rakowski, Fiore, Harlow, Redding, Rosenbloom and Rossi, 1994; Lee, 1993; Marcus and Owen, 1992; Marcus, Rakowski and Rossi, 1992).

This model offers a simple and efficient way of classifying a target population for programmatic consideration and intervention components. It should be kept in mind that each stage presents dissimilar problems for the health promoter. The health promoter should recognize the importance of motivation, skills, successful experiences, and social and environmental supports in the different stages (Butler, 2001).

Both the Health Belief Model and the Stages of Change Model include self-efficacy as part of the respective models. Self-efficacy is defined as a person's estimation of their ability to perform the particular behavior in a particular situation, i.e. how confident are they in their capability to perform the behavior (Bandura, 1977). Self-efficacy is an important pre-requisite for behavioral change. Both these models describe individuals' reactions to situations in which they may find themselves as well as the analytical processes they go through when attempting to change behavior. However neither of these models puts the individual into a social and family context nor do they show how the individual can be affected by interactions within a social and family context. Romer and Hornick (1992) argue that even if education affects individuals' beliefs about susceptibility and severity, these changes are unlikely to lead to action unless others in the community change the beliefs.

As almost all the social cognitive theories were developed and assessed in America, it would be ill-advised to generalize these theories to the South African

context. Harrison, Smit and Meyer (2000) evaluated different South African behaviour change programmes and suggested that these programmes must be targeted at high-risk groups to make them more effective in the South African context. Further these interventions need to be appropriate and culturally relevant and be combined and linked with health services. Bearing in mind South Africa's unique cultural heritage, it can be deduced that a model that accounts for culture and context would be most appropriate in South Africa. Eaton et al. (2003) concluded that it is vital for models to include personal factors, proximal context and distal context in relation to South African research.

An important issue that must be taken cognizance of is that gender is not discussed directly within any of the traditional theoretical models. Amaro, Blake, Schwartz and Flinchbaugh (2001) agree with this in stating that theoretical frameworks that have been used to guide adolescent health risk behaviour prevention historically, have not sufficiently addressed the role of gender in risk. This is supported by Im & Ibrahim (2001) who stated that a particular theoretical deficit is gender issues ingrained in women's daily lives and including the social, cultural and historical contexts that shape women's health experiences and perspectives. The above mentioned authors argue that traditional theories do not explicitly factor in and reflect women's own voices and experiences.

2.5.3 The Social Consensus Model

Romer and Hornik (1992) argue that the above theories neglect the important contribution of the social environment in supporting healthier behaviour. They describe a model of social consensus (SCM) that allows alternative routes for educational influence at both individual and social levels. The SCM assumes that basic knowledge and skills for avoiding health threats may not be enough for behaviour change unless socially-mediated influences that can hinder behaviour change are addressed.

The first major assumption underlying the SCM described by Romer and Hornik (1992) is that knowledge of a health threat, including sources of illness and possible ways to steer clear of the threat, unavoidably raises social issues that require additional resolution before appropriate action is taken. The second major assumption in the SCM is that the social environment can affect behaviour independently of the influence that education for individuals can have.

According to the SCM, basic knowledge about risk behaviours and its prevention may be insufficient to alter behaviour. The SCM suggests that further education may be needed to overcome socially-supported alternative responses to a health threat. The SCM also suggests that reaching the at-risk audience may not be sufficient to produce lasting behaviour change. It must be recognized that unless the audience's social environment supports the recommended behaviour, it will be all the more difficult to change behaviour of the most at-risk audience.

Though not a test of the Social Consensus Model, this thesis examines related hypotheses suggesting that knowledge of a health threat, and possible ways to avoid the threat, inevitably raises social issues that require further resolution before appropriate action can be taken.

2.6 SUMMARY

Studying a topic such as adolescence, with its myriad of physical, social, emotional, and cognitive changes and accompanying developmental tasks, is a very challenging research endeavor. As the literature review above indicates, studies have shown that adolescent risk-taking is a common phenomenon related to various environmental factors.

It is also apparent that young women are clearly at high risk for engaging in health risk behavioiurs. The literature review also raises questions as to how young women's behavioral patterns are contextually determined. These contextual factors are not highlighted in the literature reviewed and this study will attempt to identify these factors. The present study also attempted to promote understanding regarding the underlying meanings and processes that are involved in an adolescent's choice to engage in potentially harmful behaviours.

CHAPTER 3

METHODOLOGY

3.1 INTRODUCTION

This chapter provides an overview and rationale for the methodology used in the study. Aspects discussed in this chapter includes, but are not limited to, research questions, study sample and data analysis.

3.2 RESEARCH QUESTIONS

1. What is the prevalence and patterns of the following health risk behaviours among black female high school learners in the Strand?
    a. smoking
    b. alcohol use
    c. drug use
    d. violence related behaviours
    e. sexual risk behaviours
    f. physical inactivity
2. It is hypothesized that there is a significant difference in the incidence of engagement in health risk behaviours between "Coloured" and "African Black" female learners.
3. It is hypothesized that there is a significant difference in the incidence of engagement in health risk behaviours between learners in Grade 8; 9; 10; and 11.

4. It is hypothesized that there is a significant difference in the incidence of engagement in health risk behaviours between learners aged 13; 14; 15; 16 17 and 18 years.
5. It is hypothesized that there is a significant difference in the incidence of engagement in health risk behaviours between black female learners based on religious affiliation.
6. It is hypothesized that there is a significant difference in the incidence of engagement in health risk behaviours between black female learners based on their knowledge of the consequences of health risk behaviours.
7. Which factors predispose black female learners to engage in health risk behaviours?
8. Which factors help to maintain black female learners' engagement in health risk behaviours?
9. Who are the sources/persons to who black female learners turn for advice about their engagement in specific health risk behaviours.

3.3 POPULATION AND SAMPLE

The setting for the study was the Strand, Western Cape that is situated in the Helderberg Basin and forms part of the City of Cape Town Municipality. The key subregions in the Helderberg Basin include Somerset West, Strand, Gordons Bay, Lwandle-Namzamo and Sir Lowry's Pass Village. The Helderberg Basin adds up to about 330 km^2. According to the 2001 population census, the

population in the Strand was estimated to be 46 450. About seventeen percent (7 933) of the population in the Strand was in the age range of 7-15 year old for whom schooling is compulsory according to Act 82 of South African law regarding education (Government Gazette, 1996).

The present study is not a multi-site epidemiological study and locates itself in the Strand for various reasons. The Strand is demographically typical of the Western Cape in its proportion of "Black African" and "Coloured" youth. The reason for not including White female learners in the study stems from the idea that Black female learners come from lower socio-economic groups. Literature has shown that individuals from lower socio-economic groups are more prone to health risk behaviours than their counterparts from higher socio-economic groups. Another reason for this particular setting is that good access to all the schools in the Strand could be negotiated. All the learners from the schools come from the community, in which the schools are situated, thus enabling the researcher to investigate the contextual factors implicating health risk behaviours. Another compelling reason for choosing this particular research setting is that it has a good distribution of different ethnic groupings but living and schooling in the same environment.

Within the Strand area, there are four high schools that cater for the adolescent age group. Although all the schools are non-racial, only three of the schools enrolled primarily Black learners. The fourth school had a negligent number of

Black female learners enrolled and was subsequently excluded from the study's sampling frame. Two of the schools are situated in previously "Coloured" communities, and attract more learners from those communities. The third school was established predominantly for the Black African community in the Strand. These schools have learners from the age of 13 years in grades 8 to 12. During the second semester of 2001 about 55% of the learners in these three schools were female. The schools are five kilometres apart geographically. The majority of the learners at two of schools live within walking distance from the school and learners from the third school were transported to school by bus. Class sizes range from between 40 to 60 learners per school and all schoolyards are fenced. Thus the preliminary sampling frame comprised of black female learners enrolled at three historically black high schools in the Strand. This constituted approximately 3000 learners in the three high schools eligible for inclusion in the study. The Western Cape Education Department stipulates in its guidelines and procedures for Education Research that learners in their final year of study should be excluded from studies undertaken by private researchers. Thus the sampling frame was further reduced to exclude Grade 12 learners in accordance with the regulation cited above.

Permission was obtained from the Western Cape Education Department to invite the learners enrolled at the three schools in the Strand (Appendix 1) to participate in the study. Permission was granted on the condition that the results would be made available to the Department and that the schools would not be

mentioned individually in the results. Subsequently, permission was then obtained from the principles and the parent-teacher association at the respective high schools in the Strand to conduct the study at their schools (Appendix 2). The principals of the schools took the ethical responsibility of informing the parents of the learners beforehand through the parent-teacher-association. Parent-consent forms (Appendix 3) and learner-consent forms (Appendix 4) were distributed at the parent-teacher-association meetings at the schools. After permission was obtained, each school was asked to provide the name of a staff member to act as a liaison officer with the researcher and research assistant. Learners returned signed parent-consent and learner consent forms to their teachers who in turn submitted it to the researcher. The final sampling frame thus consisted of those black female learners who returned the signed parent and learner consent forms.

The study incorporated a probability sample because every learner who was eligible for inclusion in the study had an equal chance of being selected for the study. This type of sample also enables the researcher to generalize the findings to the designated population. The study specifically employed a stratified sample using Grade level as the individual stratum. This means that the learner had to be enrolled for one grade only and inclusion in one stratum would necessarily mean exclusion from any other stratum. In other words, the sample was stratified into four strata corresponding to grades eight, nine, ten, and eleven respectively. In an attempt to minimize disruption in the academic programme, it was decided to randomly select two classes from every school in every stratum or grade.

Twenty four classes in which 952 female learners were enrolled were randomly selected from grade 8-11 in the three participating schools. Of the learners selected only 857 had signed parent-consent forms, the remaining 95 learners were thus excluded from the study. Of the learners remaining 801 submitted completed questionnaires. The overall response rate was thus 84.1%.

The final sample thus consisted of 801 female high school learners ranging from age 13-19 years with a mean age of 15.75 years and a standard deviation of 1.57. The socio-demographic characteristics of the sample are illustrated in table 3.1 below.

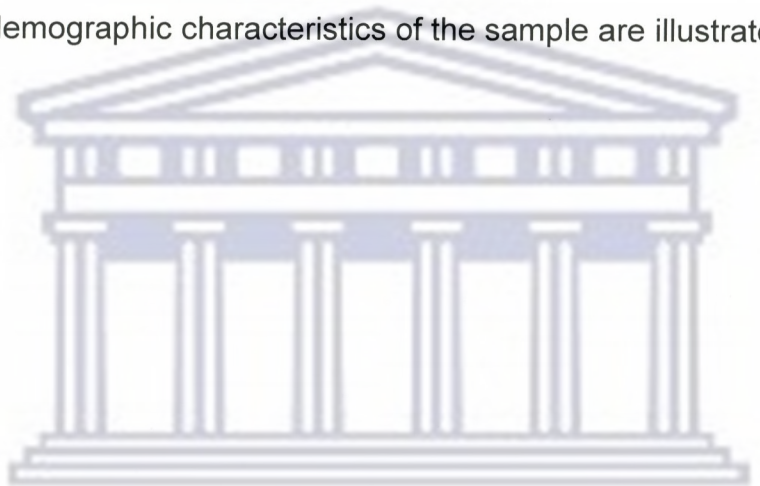


Table 3.1: Distribution of selected socio-demographic characteristics of the study sample (n=801)

Variable	n	%
Race/Ethnicity		
"African Black"	306	38.2
"Coloured"	449	56.1
Other[a]	26	3.2
Missing	20	2.5
Age (years)[b]		
13	53	6.6
14	161	20.0
15	156	19.5
16	135	16.9
17	145	18.1
18 and older	148	18.5
Missing	3	0.4
School grade		
8	211	26.3
9	195	24.3
10	218	27.2
11	166	20.8
Missing	11	1.4
Education of head of household		
Never attended school	37	4.6
Some primary school	168	21.0
Some secondary school	470	58.7
Tertiary qualification	80	10.0
Missing	46	5.7
Employment status (head of household)		
Employed	527	65.8
Unemployed	196	24.5
Missing	78	9.7
Religious affiliation		
Yes	679	84.8
No	106	13.2
Missing	16	2.0

[a] Other included Asian/Indian
[b] Mean age = 15.75 years, (SD= 1.571), median age = 16 years.

The majority of learners in this sample (86.9%) were aged between 14-18 years with 6.6% aged below this range and 6.1% above. Educationally, there was a fairly even representation of class grades, with Grade 11 having the smallest proportion of learners. The majority of the sample classified themselves as "Coloured" (56.1%), 38.2% as "African Black" and 0.2% as Indian. The mean age of those who classified themselves as "Coloured", was 15.14 years (SD=1.39) and for those who classified themselves as "African Black" was 16.83 years (SD=1.56). The majority of the learners (47.1%) reported their head of household as the mother. As far as the educational level of the head of household is concerned, the majority (58.7%) had completed some secondary schooling.

3.4 STUDY DESIGN

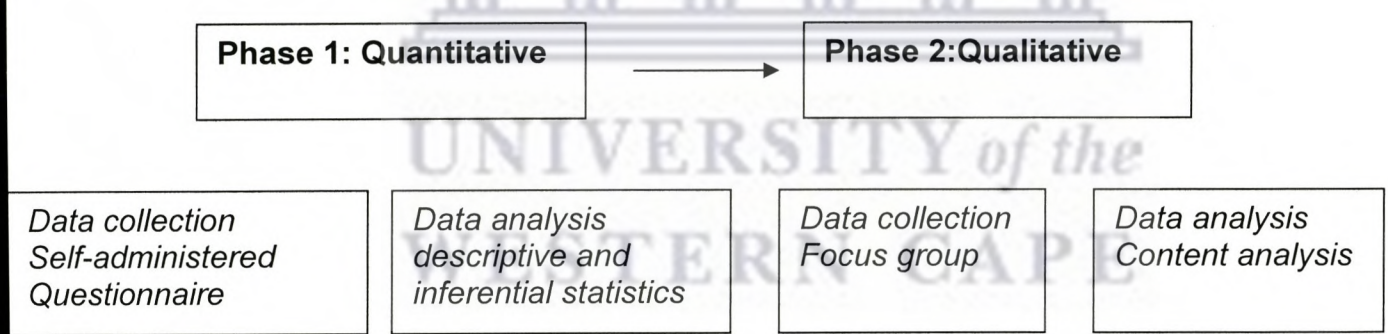
This study utilized a mixed method approach, specifically the sequential explanatory strategy. Creswell, Plano Clark, Gutmann and Hanson (2003) identified six major strategies of mixed methods. The sequential explanatory strategy has been deemed to be the most straightforward of the six major mixed methods designs and identified this as one of its main strengths. The strategy is characterized by the collection and analysis of quantitative data followed by collection and analysis of qualitative data (Creswell, 2003). The purpose of this strategy is typically to use qualitative data to assist in explaining and interpreting the findings of a primarily quantitative study (Creswell et al., 2003). Borkan (2004) also stated that "*mixed methods give the researcher additional perspectives and insights that are beyond the scope of any single technique*".

According to Tashakkori and Teddlie (2003) the area of mixed methods research is just entering the field of "adolescence" and that many unresolved issues needs to be addressed before a mature mixed methods research methodology can emerge. Creswell, Fetters and Ivankova (2004) however noted that because of the expanded use of qualitative research in health studies, mixed methods research holds potential for rigorous, methodologically sound studies. Creswell et al. (2004) and Stange (2004) assert that: "*when used in combination both quantitative and qualitative data yield a more complete analysis and they complement each other*". However, Creswell et al. (2004) cautioned that this form of research is more than just collecting both type of data, it also indicates that data will be integrated, related or mixed at some stage of the research process to provide a multi-dimensional analysis of the data.

The other strategies identified by Creswell et al. (2003) include the sequential exploratory strategy, the sequential transformative strategy, the concurrent triangulation strategy, the concurrent nested strategy and the concurrent transformative strategy. Essentially the sequential procedures entail the elaboration or expansion of the findings of one method with another method. The concurrent procedures converge quantitative and qualitative data in order to provide a comprehensive analysis of the research problem. In the transformative procedures the researcher uses a theoretical lens as an overarching perspective within a design that contains both quantitative and qualitative data.

In this study the priority is given to the quantitative data and the two methods are integrated during the interpretation phase of the study. In the first phase of this sequential mixed methods study a self-administered questionnaire was administered to determine the prevalence of health risk behaviours and the relationship between health risk behaviours and socio-demographic variables. In the second phase of the study, focus group discussions were conducted to further explore and examine the socially constructed views of adolescent learners on their health risk behaviours. The purpose for choosing this method and strategy was primarily to use the qualitative data to assist in explaining and interpreting the findings of the quantitative data. The design for the study is outlined below in Figure 3.1.

Figure 3.1 Sequential explanatory design (Creswell, 2003)



As mentioned before, phase 1 should inform phase 2. The researcher considered using group differences obtained from analysis of phase 1 to inform the composition of focus groups. The major advantage of this would be increased

homogeneity of focus groups. However (Bergin, Tally and Hamer, 2003) states that knowledge is socially constructed and that the credibility of focus groups is enhanced when the group composition is reflective of the social context within which female learners are spending the majority of the time. In view of this, female learners spend 8 hours per day at school in classes that are mixed. That is, classrooms are not homogenous nor are they formed along predetermined socio- and or demographic grouping variables. Thus the present study incorporated focus groups that were heterogeneous (in terms of race, age, school grades and socio-demographic characteristics). To this end participants were allocated randomly to focus groups within their grade level. It became evident that phase 2 was not dependant on the results or findings of phase 1. Thus it was decided to conduct all analyses at the conclusion of phase 2. This served a further purpose of reducing researcher bias in the facilitation of the focus groups in phase 2. In addition, the integration of data, as urged by Creswell (2003), was deferred to the discussion.

3.5 METHODS OF DATA COLLECTION

The study incorporated two questionnaires and focus groups as methods of data collection. Below follows a brief motivation for the choice of instruments and the properties of each.

3.5.1 Demographic Questionnaire

This self-constructed questionnaire (Appendix 5) measured demographic and socioeconomic characteristics of the participants. The following variables were assessed: age, school grade, religious affiliation, head of household, employment status of head of household and race/ethnicity. The learners were asked to indicate the population group into which they would classify themselves. Therefore self-description, rather than any other method, was used for classification purpose. The race/ethnicity variable was based on the former government's repealed population Registration Act of 1950 (i.e. African Black, Coloured, White and Indian/Asian).

3.5.2 Youth Risk Behaviour Surveillance System – Short form (YRBSS)

The YRBSS is a self-administered questionnaire that measures adolescents' involvement in health risk behaviours developed by the Center for Disease Control and Prevention (CDC). The CDC implemented the (YRBSS) in 1989 to monitor the priority health-risk behaviours among the youth and young adults in the USA (Kann, Kinchen, Williams, Ross, Lowry, Grunbaum and Kolbe, 1999). The YRBSS was developed after input from state and local health and education agency representatives and experts in each categorical area. This questionnaire underwent extensive focus group and field-tests work to clarify and refine the wording of the questions and their appropriateness for youth.

The full form of the questionnaire assesses eight domains of health risk behaviours. They include cigarette use, alcohol use, drug use, sexual activity, behaviours leading to violence, perceptions of body weight, suicidal thoughts and behaviours related to physical activity. The questionnaire has demonstrated good reliability with kappas for the risk-behaviour items ranging from .51 to .88. Approximately 72% of the items have "substantial" or higher reliability (Kann et al., 1999). The instrument has also been found to have both face and content validity.

The YRBSS has been used in South Africa with adolescents and has been deemed appropriate for further use with this population in this context (Reddy et al., 2003).

The YRBSS was administered to high school learners in another school in the Helderberg Basin that are similar to the target group in this study in an attempt to assess the validity and applicability of all the items for this population. The findings indicated that the items related to perceptions of body weight and suicide yielded poor face and content validity. Similarly, only ten percent of the pilot sample possessed motor vehicles or reported using motor vehicles with or without driver's licenses. They primarily made use of public transportation. Thus these items were the least relevant to the target group due to economic constraints. Thus for the purposes of this study, the YRBSS was abbreviated by excluding the abovementioned items.

The abbreviated version of the YRBSS was piloted before the final version of the questionnaire was adopted for use in the study. The questionnaire was administered to a group of 40 learners in a different school in the Western Cape of similar demographic profile as the intended sample school. This was done to assess its level of understandability, its ability to be completed and the time it takes to be completed. The time taken for the learners to complete the questionnaire ranged from 30-40 minutes. A 10-20 minute discussion followed the completion of the questionnaire to discuss the meaning and clarity of the questions. The results indicated that the instrument was relevant to the population and was easily used by learners in the designated grades. Thus the abbreviated version that assessed six domains of health risk behaviours was adopted for use in the study (Appendix 5). The domains include:

Cigarette use. Questions on cigarette use measured lifetime and current patterns of cigarette use; age of initiation of smoking; attempts to quit smoking, knowledge of the effect of smoking on health; and attempts made to seek advice about smoking.

Alcohol use. Questions on alcohol use measured lifetime and current patterns, age of initiation, knowledge of the effect of alcohol use on health; and attempts made to seek advice about alcohol use.

Drug use. Questions on drug use measured lifetime and current patterns, age of initiation, knowledge of the effect of drug use on health; and attempts made to seek advice about drug use.

Behaviours contributing to violence. The questions on violence related behaviours measured days missed from school due to safety reasons and abusive behaviour, the frequency and severity of physical fights, abusive behaviour of partners, forced sexual intercourse; knowledge of the effect of violence on health; and attempts made to seek advice about violence.

Sexual activity. Questions on sexual activity measured the prevalence of sexual activity, number of sexual partners, age of first intercourse, condom and contraception use, pregnancy and whether high school learners have received HIV prevention education, knowledge of the effect of unprotected sex on health; and attempts made to seek advice about sexual behaviours. Sexual activity referrers to consensual sexual intercourse and did not include practices of oral sex and other modes of 'heavy petting'.

Physical activity. Questions on physical activity measured patterns of and participation in physical activity, sedentary behaviours such as television watching and playing computer games, knowledge of the effect of being physically inactive on health; and attempts made to seek advice about physical inactivity.

3.5.3 Administrative procedure

To standardize procedure, it was decided not to involve the school principals or the teachers in the administration of the questionnaire. In this way the learners were less likely to regard the questionnaire with suspicion because it was not directly associated with the school or education department. Furthermore, the

validity of the responses was increased because there was no possibility of the school staff having access to the learners' responses. Besides the learners, the only people present in the classrooms when the questionnaire was being administered were the researcher and the research assistant.

At the beginning of each session the purpose of the study was clearly explained by the researcher to the learners. This was in the service of procuring informed consent. Learners were reminded that their participation in the study was voluntary and that they retained the right to withdraw at any time. Participants were assured that information provided would be treated in strict confidence, and they were informed about the ways in which results would be made available to all role players. Learners were informed that they would receive a fact sheet giving some of the results of the survey and some advice about what could be done to reduce the extent of their risk-taking behaviour. Anonymity was achieved by having learners complete questionnaires without their names or identifying information on the answer sheets.

The next step was to provide detailed instructions as to how the questionnaire should be filled in. All this information was also available on the cover of the questionnaire. The demographic questionnaire was completed item by item with the researcher or research-assistant leading and reading out the questions to the participants.

The YRBSS-abbreviated form was completed independently. Learners were encouraged to work individually, quietly, honestly and as quickly as possible. One 55-minute class period was used to administer the questionnaire. It took the learners approximately 35 minutes to complete the questionnaire independently and anonymously. In view of the fact that the questionnaire may have aroused more questions and interest about the topic of the study, the learners were given a further 20 minutes to talk about their experiences. Furthermore, the questionnaire may have aroused some emotions. The students were invited to contact the researchers telephonically to discuss questions or to indicate counseling and/or psychotherapy needs. A clinical psychologist in the area was made available for consultation.

The level of discipline maintained in the classrooms was generally satisfactory.

3.5.4 Focus Groups

Qualitative data in this study was collected to survey the female learners' accounts of predisposing and maintaining factors to engage in health risk behaviours. Qualitative data was collected by means of focus group discussions. Focus groups, a commonly employed qualitative data collection method, – a type of group interview – allow the research participants, in interaction with each other, to speak for themselves, using their own language and in the context of their own experience (Bergin, Tally and Hamer, 2003). The respondents are able to validate, challenge and expand upon each others' statements. Focus groups

allow participants to express freely their ideas and beliefs and to willingly discuss issues that they may not otherwise disclose (Baumgartner and Strong, 1998). In addition, the use of focus groups has been identified as a valuable tool in health education and promotion needs assessment (Tipping, 1998).

According to recommended procedures (Charlesworth and Rodwell, 1997; Hoppe, Wells, Morrison, Gillmore and Wildson, 1995) the five focus groups consisted of 10-12 participants. The liaison officer recruited participants and they were given parental and learner consent forms to return. The sessions were conducted in the language used by the majority of the participants and the decision about language medium was made by the group. Subsequently three groups were facilitated in Afrikaans and two groups in English. The focus group sessions lasted for approximately one hour and were facilitated after school between 14:30 and 15:30 to avoid disruption of the school schedule.

Each group was facilitated by three trained female facilitators. The training for facilitators included assigned readings, practice, rehearsal and feedback. To ensure uniformity a facilitator's guide was used that included introduction, statement of the basic rules, short question and answer discussions and guidance for dealing with sensitive issues.

The facilitators fulfilled the following roles: Discussion leader, scribe and observer/recorder. The age range of the facilitators was 19 to 21 years of age.

The participants were informed that there was no right or wrong answers. The facilitators guided the discussion to permit and encourage full participation from all girls. The focus groups were concluded when each learner said they could not think of anything else to add. Their responses were recorded, audio-taped, and transcribed verbatim by an independent person with experience in transcription. Debriefing sessions were held immediately after the focus group sessions. During these sessions notes were compared and discussed for their accuracy. The duration of these sessions lasted between one and a half to two hours.

3.6 ANALYSIS

3.6.1 Quantitative data

Data was captured on a spreadsheet using the Word Excel programme in preparation for analysis. The data were recoded from question responses into meaningful prevalence variables. It was then imported into the Statistical package for the Social Sciences (SPSS) version 10.0 which was used for the analysis of the quantitative data.

Descriptive statistics were employed to summarize the demographic data of the study sample. The demographic data were presented using frequency tables and was expressed as percentages, means, and standard deviations.

Cross-tabulations were used to determine the distributions of cases or frequency counts in the various groups defined in research questions 1-6. A cursory glance at these cross-tabulations indicated that all the defined groups did not contain sufficient cases to warrant the retention of all the grouping variables for research questions 1-6. Thus the Indian/other race group were eliminated from the cross-tabulations. The differences in frequency count per health risk behaviour in the respective groups were tested for significance using the Chi-square test. Pretorius (1995) recommended Chi-square as an appropriate method for frequency data. However this analysis precludes the use of group size of a covariate. The exact binomial method was used to construct confidence intervals for proportions. Alpha level was set at $p<0.05$.

For the analysis of research question 9, descriptive statistics were employed to summarize the frequencies of the sources/persons to whom female high school learners turn for advice about their engagement in specific health risk behaviours.

3.6.2 Qualitative data

Content analysis was used to answer research questions 8-9. The analysis of the focus group discussions started with transcription of information from the audiotape recordings. A total of five hours of tape-recorded interviews were obtained and transcribed verbatim to produce a manuscript. A comparison was then made with the notes taken during the discussions, to verify accuracy.

Elements such as gesture and body language were added to the information recorded.

A trained, multilingual translator translated the Afrikaans transcriptions into English. The translator carefully attempted to keep the original words throughout the process of translation, to ensure validity. The researcher's role was then to focus on extracting meaningful ideas from the different participants opinions. Afterwards, transcripts were read through several times by the researcher, and emphasis was put on the emergence from the ideas of themes. Notes were made throughout the reading of the transcripts. Thus data was coded in themes, followed by the creation of broad categories of emerging themes which fit together.

The analysis was done by reading through the transcripts, again and again, making as many headings as necessary to describe all aspects of the content. In addition, grouping of the themes into broader categories was done in order to reduce the number of themes or small categories; for instance, very similar headings were conflated to come up with one. However, the researcher emphasized searching for categories that have internal convergence and external divergence, which means that the categories must be internally consistent but distinct from one another (Marshall and Rossman, 1995).

After the derivation of themes, an independent researcher read through the transcripts and generated themes, thus increasing the validity and reliability of the categorizing. Lists were compared with the researcher which the independent researcher had not seen. There were no major themes identified by the independent researcher that were not noted by the researcher or vice versa. The last step was for the researcher to focus on searching for plausible explanations for the data in the categories, and linkage among categories.

In qualitative research, reliability and validity is referred to as establishing trustworthiness. Trustworthiness of qualitative data is measured by its credibility, which in qualitative research, is determined by the match between the constructed realities of the participants and the reality represented by the researcher (Lincoln and Guba, 1995). Several techniques were used to build credibility:

- Notes were taken during peer debriefing sessions.
- Field notes were used to corroborate themes and to assist in the interpretation of the findings.
- Since it was not possible to obtain member checks from the learners to verify the research findings, actual words of the learners were used to represent themes where possible.

3.7 SUMMARY

In this chapter, the research questions were identified. The study's method was outlined, including the method of sampling and an explanation of the measuring

instruments. A brief outline of the analysis of the data was provided. The results of these quantitative and qualitative analyses were tabulated and are presented in Chapter 4 and Chapter 5, thus data will be presented in sequence as prescribed by Creswell (2003). In addition, the integration of data, as urged by Creswell (2003), was deferred to the discussion.

CHAPTER 4

RESULTS

4.1 INTRODUCTION

This chapter contains the results of the statistical analysis that attempted to answer the hypotheses stated in chapter three. The chapter is organized in such a manner that it follows the listing of the research questions or hypotheses stated in the previous chapter. Each hypothesis or research question will be restated followed by a summary of the results.

4.2 **Research Question 1:** The first research question attempted to ascertain prevalence and patterns of the selected health risk behaviours among black female high school learners in the Strand. Below follows a brief exposition of the reported prevalence in each of the health risk behaviours selected apriori to the commencement of the study.

Figure 4.1 Percentage of black female high school learners who smoked, used alcohol and drugs

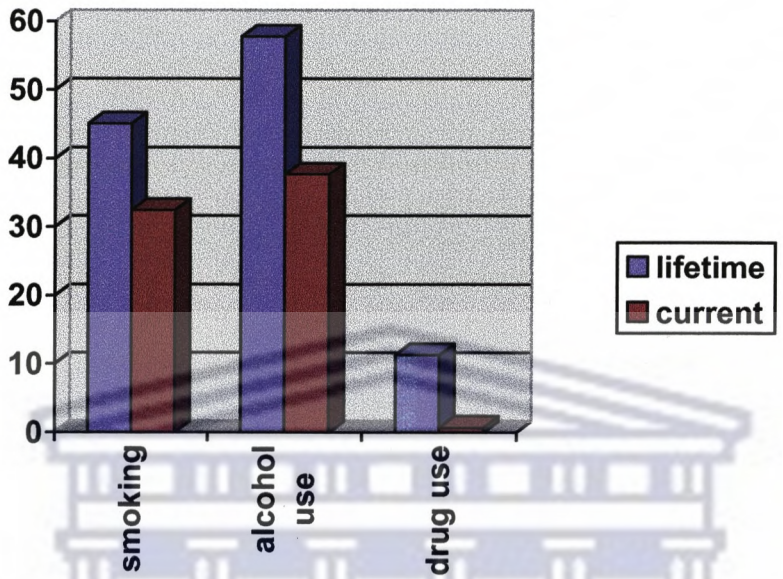


Figure 4.1 summarizes the prevalence of smoking, alcohol use and drug use among black female high school learners. Below follows a brief exposition of the prevalence of smoking, alcohol and drug use as reported. Results will be reported in terms of lifetime use, current use (30 days preceding the study), and age of onset.

4.2.1 Smoking: A lifetime prevalence of smoking was reported by 45.1% of the sample [95% CI: 41.7 – 48.5]. Almost one-third (32.5%) were classified as current smokers [95% CI: 29.2 – 35.8]. Overall 13.0% of the learners had smoked their first cigarette before the age of 12 years [95% CI: 10.7 – 15.3].

4.2.2 **Alcohol use:** A lifetime prevalence of alcohol use was reported by 57.8% of the sample [95%CI: 54.4 – 61.2]. More than one third of the sample (37.7%) reported current alcohol use [95% CI: 34.3 – 41.1]. Overall, 14% of the sample had drunk their first drink of alcohol before the age of 12 years [95% CI: 11.6 – 16.4].

4.2.3 **Drug use:** A lifetime prevalence of drug use was reported by 11.3% of the sample [95%CI: 9.1 – 13.5]. The prevalence of current drug use was 8.4% [95%CI: 6.5 – 10.3]. Less than 1% (0.7%) of the learners reported using drugs before the age of 12 years [95% CI: 0.1 – 1.3].

Figure 4.2 Percentage of black female high school learners involved in behaviours contributing to violence

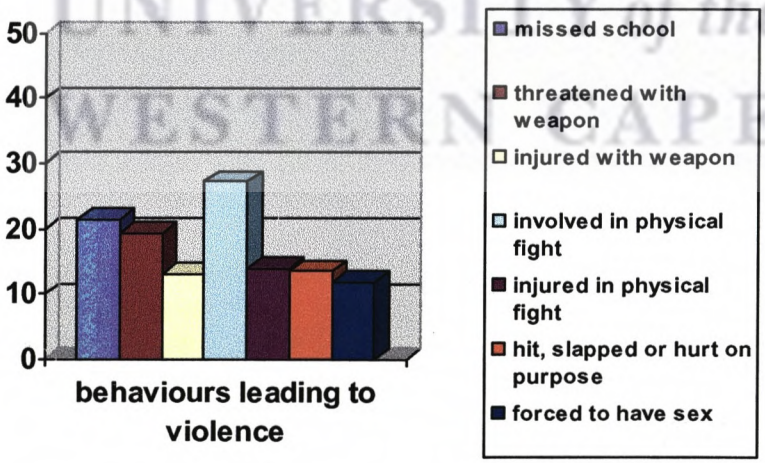


Figure 4.2 summarizes the prevalence of behaviours contributing to violence among black female high school learners. Below follows a brief exposition of the prevalence of these behaviours as reported. Results are reported in terms of days missed at school during 30 days preceding the study, being threatened and injured with a weapon in 30 days preceding the study, involved in and injured in a physical fight in 30 days preceding the study, being hit, slapped or physically hurt on purpose by a boyfriend in their lifetime and ever having been forced to have sex.

4.2.4 Behaviours that contribute to violence: Overall 21.5% of the learners missed school on one or more days during the 30 days preceding the study [95%CI: 18.6 – 24.4]. Almost one-fifth (19.3%) of all the learners had been threatened by someone with a weapon during the month preceding the study [95% CI: 16.5 – 22.1]. The learners who had been injured with a weapon once or more during the 30 days preceding the study comprised 13.1% of the total sample [95% CI: 10.7 – 15.3]. More than a quarter (27.2%) of the total sample had been involved in a physical fight one or more times during the 30 days preceding the study [95% CI: 24.1 – 30.3]. Overall 14.1% of the sample had been injured in a physical fight on one or more occasions during the 30 days preceding the study [95% CI: 11.6 – 16.4]. Almost 1 in 8 learners (13.6%) reported having been hit, slapped or physically hurt on purpose by a boyfriend in their

lifetime [95% CI: 11.2 – 16.0]. Overall 12% of the learners reported ever having been forced to have sex [95% CI: 9.6 – 14.4].

Figure 4.3 Percentage of black female high school learners who are sexually active

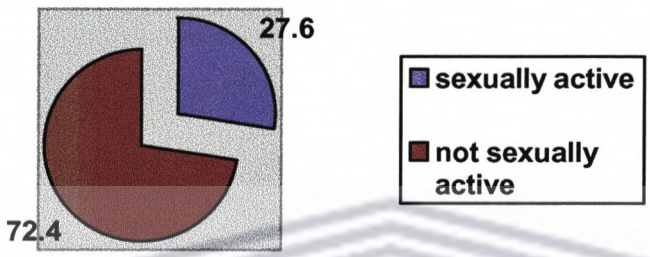


Figure 4.3 summarizes the prevalence of black female high school learners who are sexually active.

Figure 4.4 Percentage of black female high school learners engaging in risky sexual risk behaviours

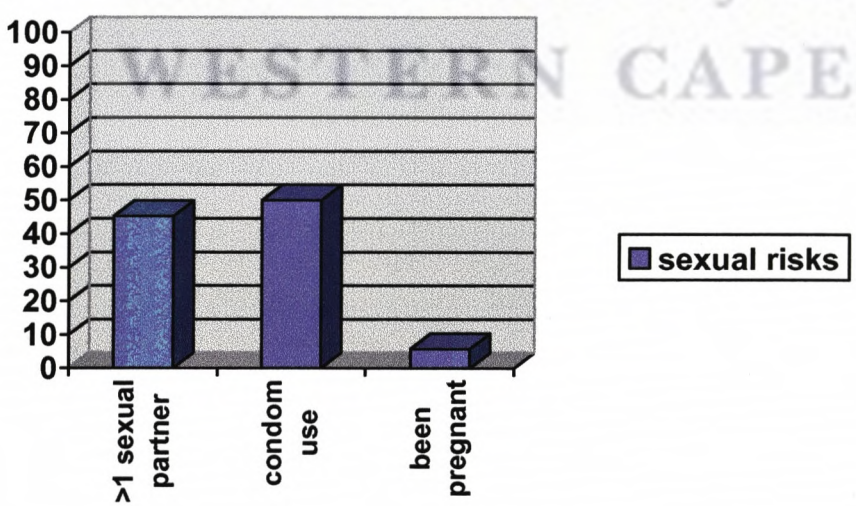


Figure 4.4 summarizes the prevalence of sexual risk behaviours among sexually active black female high school learners. Below follows a brief exposition of the prevalence of these behaviours as reported. Results will be reported in terms of having more than one sexual partner in their lifetime, having been pregnant, and condom use at last sexual intercourse.

4.2.5 Sexual risk behaviours: 27.6% of the learners reported being sexually active [95% CI: 24.5 – 30.7]. The prevalence of learners who reported having had first sexual intercourse before the age of 14 years was 3.6% [95% CI: 2.3 – 4.9]. Of the learners who reported ever having sex in their lifetime, 45.3% reported having had more than one sexual partner [95% CI: 38.6 – 52.0]. Overall 5.8% of the learners have been pregnant [95% CI: 4.2 – 7.4]. Overall 50.0% of those who ever had sex reported that they used a condom the last time they had sexual intercourse [95% CI: 46.5 – 53.5]. The overall prevalence of learners indicating that they were taught about HIV/AIDS at school was 78.9% [95% CI: 76.0 – 81.8].

Figure 4.5 Percentage of black female high school learners classified as physically active and sedentary.

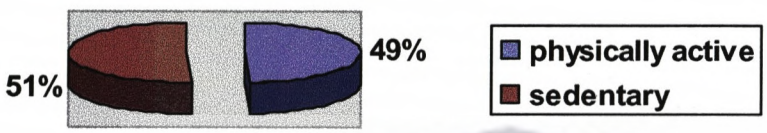


Figure 4.5 summarizes the prevalence of physically active and physically inactive black female high school learners. Below follows a brief exposition of the prevalence of physical inactivity as reported by female high school learners.

Figure 4.6 Percentage of black female high school learners who did not participate in physical activity by reasons given.

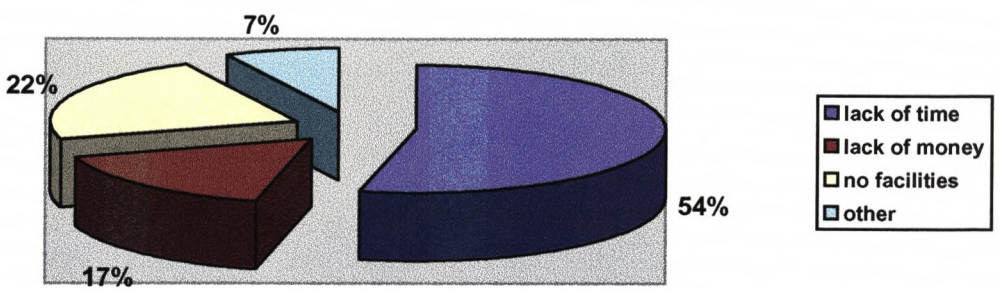


Figure 4.6 summarizes the reasons given by female high school learners for not participating in sufficient physical activity. Results will be reported in terms of the prevalence of physical inactivity in the 7 days preceding the study and reasons given by learners for not participating in physical activity.

4.2.6 Physical inactivity: Overall 93.4% of the learners participated in physical activity in the 7 days preceding the study. Almost half (49.2%) of the learners had engaged in sufficient physical activity in the week preceding the study [95% CI: 45.7 – 52.7]. More than half (50.9%) of the learners participated in insufficient or no physical activity in the week preceding the study [95% CI: 47.3 – 54.3]. Among those who did not take part in physical activity in the week preceding the study, 53.6% indicated that it was due to lack of time [95% CI: 50.0 – 57.2]. More than 16% of the learners did not participate in physical activity in the week preceding the study due to lack of money [95% CI: 14.1 – 19.5]. Over 20% of the learners did not participate in physical activity in the week preceding the study due to lack of adequate facilities [95% CI: 19.7 – 25.9]. Overall 63.7% of the learners reported that they watched television for 3 or more hours on a normal school day [95% CI: 60.3 – 67.1]. Overall 11.2% of the learners reported that they played video or computer games on a normal school day [95% CI: 9.0 – 13.4].

4.2.7 Number of health risk behaviours

Table 4.1 Number of health risk behaviours among black female high school learners (n=801)

No of health risk behaviours	n	%
0	67	8.4
1	197	24.6
2	187	23.3
3	182	22.7
≥4	168	21.0

Table 4.1 summarizes the number of health risk behaviours black female high school learners are engaging in. A third (33%) of the black female high school learners engaged in no or one health risk behaviour. Almost half (43.7%) of the learners were engaging in 3 or more health risk behaviours.

4.3 Research Question 2: The second research question hypothesized that there were significant differences between "Coloured" and "Black African" female learners in terms of their engagement in health risk behaviours.

Table 4.2 Percentage (with 95%CIs) of black female high school learners who smoked, used alcohol and drugs by race/ethnicity

Variable	"Black African"	"Coloured"
Cigarette smoking		
Lifetime[a]	17.3 (13.1 – 21.5)	63.9 (60.3 - 67.5)
Current[b]	12.1 (9.7 – 14.5)	54.5 (50.8 – 58.2)
Alcohol use		
Lifetime[a]	31.1 (25.5 – 36.7)	74.6 (70.5 – 78.7)
Current[b]	21.2 (16.3 – 26.1)	48.9 (44.2 – 53.6)
Drug use		
Lifetime[a]	2.7 (0.007 – 4.7)	15.8 (12.4 – 19.2)
Current[b]	1.9 (0.002 – 3.6)	9.4 (6.6 – 12.2)

[a] Ever smoked a cigarette in their lifetime
[b] Smoked cigarettes on one or more days in the 30 days preceding the study

Table 4.2 summarizes the prevalence of substance use, i.e. cigarette smoking, alcohol and drug use among black female high school learners.

Figure 4.7 Percentage of black female high school learners who smoked by race/ethnicity

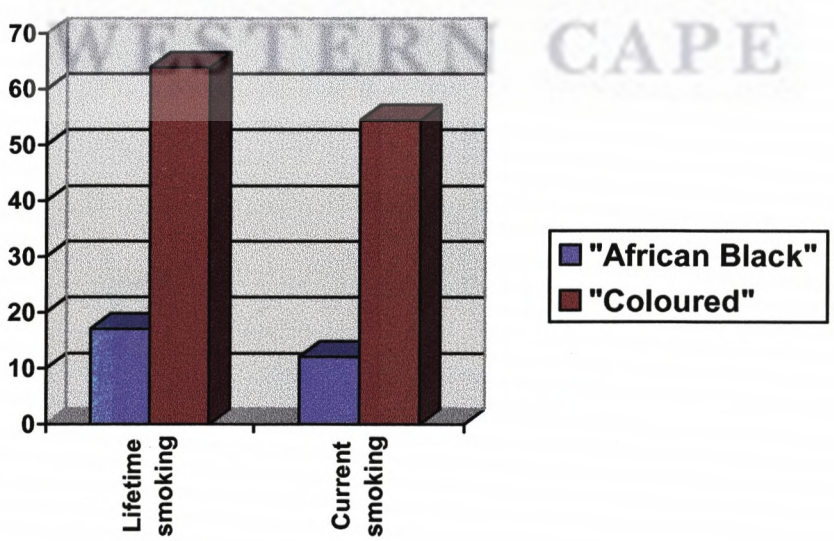


Figure 4.7 summarizes the prevalence of smoking among "Coloured" and "African Black" female high school learners. Below follows a brief exposition of the prevalence of smoking as reported by these groups. Results will be reported in terms of lifetime use, current use (30 days preceding the study), and age of onset.

4.3.1 Smoking: Significantly more "Coloured" learners (63.9%) than "African Black" learners (17.3%) reported ever smoking cigarettes (χ^2 = 160.71, $p < 0.05$). Significantly more "Coloured" learners (54.5%) than "African Black" learners (12.1%) were also classified as current smokers (χ^2=82.9964, $p < 0.05$). Significantly more "Coloured" learners (19.2%) had their first cigarette before the age of 12 years when compared to "African Black" learners (3.6%) ($p < 0.05$)

Figure 4.8 Percentage of black female high school learners who used alcohol by race/ethnicity

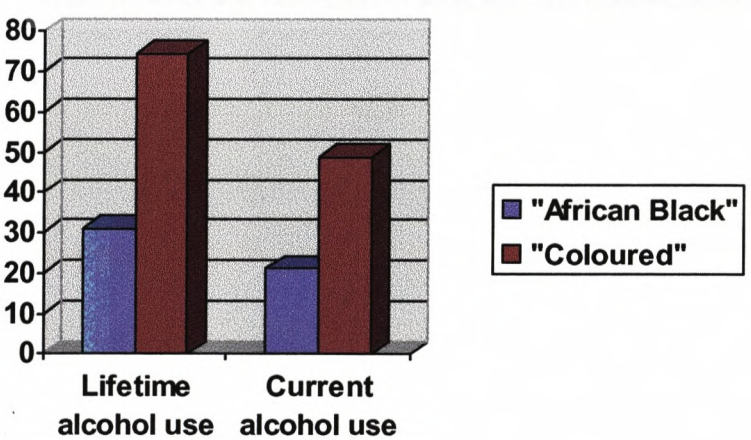


Figure 4.8 summarizes the prevalence of alcohol use among "Coloured" and "African Black female high school learners. Below follows a brief exposition of the prevalence of alcohol use as reported by these groups. Results will be reported in terms of lifetime use, current use (30 days preceding the study), and age of onset.

4.3.2 Alcohol use: Significantly more "Coloured" learners (74.6%) than "African Black" learners (31.1%) had reported lifetime alcohol use (χ^2 =128.7866, $p< 0.05$). There was also a significant difference between "Coloured" learners (48.9%) and "African Black" learners (21.2%) in terms of current alcohol use (χ^2=53.0017, $p<0.05$). Significantly more "Coloured" learners (19.2%) than "African Black" learners (5.3%) had drunk their first drink of alcohol before the age of 12 years.

Figure 4.9 Percentage of black female high school learners who used drugs by race/ethnicity

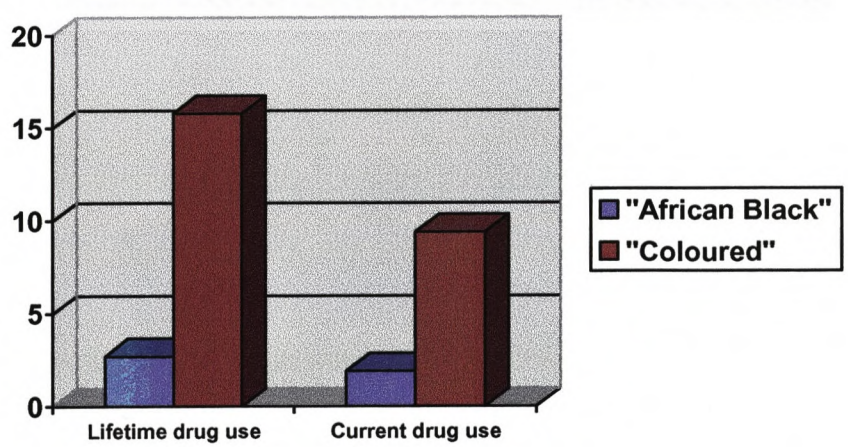


Figure 4.9 summarizes the prevalence of drug use among "Coloured" and "African Black female high school learners. Below follows a brief exposition of the prevalence of drug use as reported by these groups. Results will be reported in terms of lifetime use, current use (30 days preceding the study), and age of onset.

4.3.3 Drug use: Significantly more "Coloured" learners (15.8% [12.4 – 19.2]) reported ever using drugs in their lifetime (χ^2=29.4206, p<0.005). The "Coloured" learners reported a significantly higher prevalence (9.4% ([6.6-12.2]) of current drug use than the "African Black" learners (1.9% [0.002 – 3.6]) (χ^2=14.6620, p<0.05).

Table 4.3 Percentage (with 95%CIs) of black female high school learners who where involved in behaviours contributing to violence by race/ethnicity

Variable	"African Blacks"	"Coloureds"
Threatened with weapon[a]	15.6 (11.5 – 19.6)	21.2 (17.4 – 25.0)
Injured with weapon[b]	8.6 (5.4 – 11.4)	16.1 (12.7 – 19.5)
Missed school[c]	20.2 (15.2 – 25.2)	20.1 (16.3 – 23.9)
Involved in physical fight[d]	18.8 (14.4 – 23.2)	32.1 (27.8 – 36.4)
Injured in physical fight[e]	12.6 (8.9 – 16.3)	13.7 (10.5 – 16.9)
Suffered partner violence[f]	19.0 (14.2 – 23.8)	9.5 (6.8 – 12.2)
Forced to have sex[g]	10.3 (6.5 – 14.1)	13.2 (10.0 – 16.4)

[a] Threatened with a weapon anywhere in the 30 days preceding the study
[b] Injured with a weapon anywhere in the 30 days preceding the study
[c] Missed school on one or more days in the 30 days preceding the study
[d] Involved in physical fight at least once in the 30 days preceding the study
[e] Injured in a physical fight at least once in the 30 days preceding the study
[f] Been hit, slapped or physically hurt on purpose by a boyfriend
[g] Ever been forced to have sexual intercourse

Table 4.3 summarizes the behaviours contributing to violence among "Coloured" and "African Black" female high school learners.

Figure 4.10 Percentage of black female high school learners injured with a weapon and hurt on purpose by boyfriend by race/ethnicity

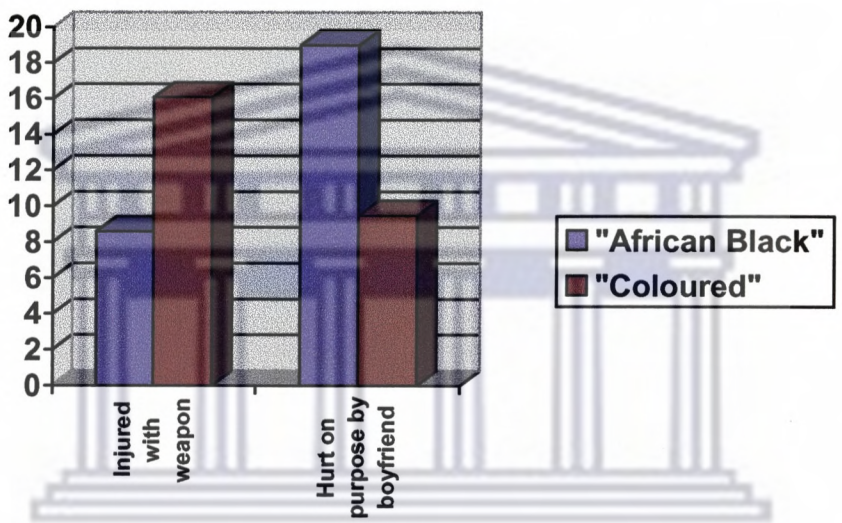


Figure 4.10 summarizes the significant differences in behaviours leading to violence among "Coloured" and "African Black female high school learners. Below follows a brief exposition of these behaviours reported by these groups. Results will be reported in terms of significant and insignificant differences between these groups.

4.3.4 Behaviours that contribute to violence: Significantly more "Coloured" learners (16.1%) compared to "African Black" learners

(8.6%) had been injured with a weapon once or more during the 30 days preceding the study (χ^2=3.665, p<0.05). Significantly more "African Black" learners (19.0%) than "Coloured" learners (9.5%) reported having been hurt, slapped or physically hurt on purpose by a boyfriend in their lifetime (χ^2=12.8869, p<0.05).

There was no significant difference in the frequency of learners who missed school on one or more days in the month preceding the study by race (p>0.05). There was also no significant difference in the frequency of learners who had been threatened by someone with a weapon by race (p>0.05) There was also no significant difference in the frequency of learners that had been injured in a physical fight during the 30 days preceding the study by or who had ever been forced to have sex by race (p>0.05)

Table 4.4 Percentage (with 95%CIs) of black female high school learners who engaged in risky sexual behaviours by race/ethnicity

Variable	"African Black"	"Coloured"
Ever had sex	43.9 (37.9 – 49.9)	12.9 (9.8 – 16.0)
More than 1 sexual partner	18.9 (14.1 – 23.7)	5.0 (3.0 – 8.0)
Ever been pregnant	10.5 (6.9 – 14.1)	2.9 (1.3 – 4.5)
Used condom[a]	78.6 (74.0 – 83.2)	91.7 (89.1 – 94.3)

[a] Used condom with last sexual intercourse

Table 4.4 summarizes the significant differences in sexual risk behaviours among "Coloured" and "African Black" female high school learners. Below follows a brief

exposition of these behaviours reported by these groups. Results will be reported in terms of sexual activity, more than one sexual partner, condom use with last sexual intercourse and incidence of pregnancy.

4.3.5 Sexual risk behaviours: Significantly more "African Black" learners (43.9%) reported ever having had sex when compared to "Coloured" learners (12.9%) (χ^2=85.60, p<0.05). Also significantly more "African Black" learners (6.8%) than "Coloured" learners (1.3%) reported having had their first sexual intercourse before the age of 14 years (χ^2=108.58, p<0.05). Significantly more "African Black" learners (18.9%) than "Coloured" learners (5.0%) reported having had more than one sexual partner in their life time (χ^2=48.10, p<0.05). The incidence of pregnancy was significantly higher for "African Black" learners (10.5%) than "Coloured" learners (2.9%) (χ^2 =20.37, p<0.05). Significantly more "Coloured" learners (91.7%) than "African Black" learners (78.6%) reported that they used a condom the last time they had sexual intercourse (χ^2=27.7482, p<0.05). Significantly more "Coloured" learners (87.7%) than "African Black" learners (68.2%) indicated that they had been taught about HIV/AIDS at school.

Figure 4.11 Reasons for not participating in physical activity by race/ethnicity

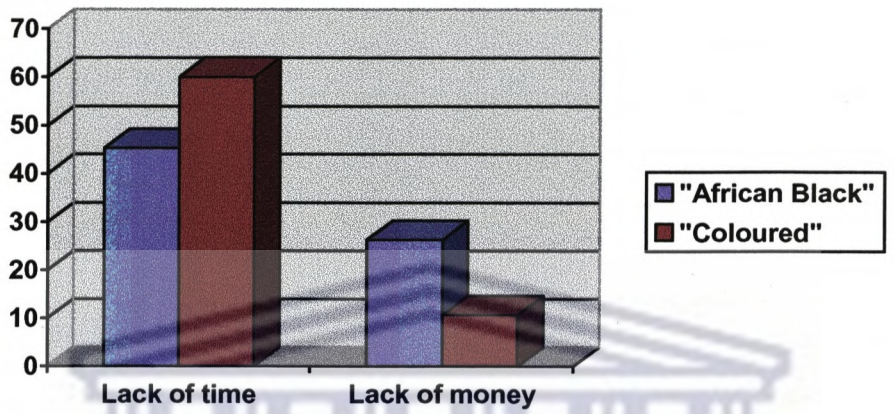


Figure 4.11 summarizes the significant differences in reasons given for not participating in physical activity among "Coloured" and "African Black" female high school learners. Below follows a brief exposition of the prevalence of physical inactivity as reported by these groups. Results will be reported in terms of the prevalence of physical inactivity in the 7 days preceding the study and reasons given by learners for not participating in physical activity.

4.3.6 Physical inactivity: There was no significant difference in the frequency of learners reporting that they participated in physical activity in the 7 days preceding the study by race. A higher prevalence of "Coloured" learners (53.2%) had engaged in sufficient physical activity in the week preceding the study. Various reasons for not participating in physical activity were reported by the learners. The reasons included lack of time, lack of

money, lack of facilities and others. Significantly more "Coloured" learners (60.1%) than "African Black" learners (45.3%) did not participate in physical activity due to lack of time (χ^2=41.7719, $p<0.05$). More "African Black" learners (23.5%), did not participate in physical activity in the week preceding the study due to lack of facilities ($p<0.05$). Significantly more "Coloured" learners (68.8%) than "African Black" learners (60.1%) reported that they watched television for 3 or more hours on a normal school day (χ^2=5.4710, $p<0.05$).

4.4 Research Question 3: The third research question hypothesized that there were significant differences in the frequency of learners in Grade 8; 9; 10; and 11 in terms of their engagement in health risk behaviours.

Table 4.5 Percentage (with 95%CIs) of black female high school learners who smoked by grade

Variable	Lifetime smoking[a]	Current smoking[b]	Initiation <12 years[c]
Grade			
8	56.5 (49.5 – 63.3)	45.2 (38.4 – 52.0)	26.1 (20.2- 32.0)
9	60.5 (53.3 – 67.4)	40.3 (33.3 – 47.3)	16.4 (11.2 – 21.6)
10	21.5 (15.8 – 27.2)	17.0 (11.8 – 22.0)	4.6 (1.8 – 7.4)
11	48.9 (40.1 – 57.7)	33.8 (25.8 – 41.8)	9.0 (4.6 – 13.4)

[a] Ever smoked a cigarette in their lifetime
[b] Smoked cigarettes on one or more days in the 30 days preceding the study
[c] Smoked first cigarette before the age of 12 years

Table 4.5 summarizes the prevalence of smoking among black female high school learners in grade 8 to 11. Below follows a brief exposition of the prevalence of smoking as reported by these groups. Results will be reported in terms of lifetime use, current use (30 days preceding the study), and age of onset.

4.4.1 Smoking: There was a significant difference in the frequency of lifetime smoking by grade. The highest prevalence of learners reporting lifetime cigarette smoking was those in Grade 9 (60.5%) and the lowest prevalence was those in Grade 10 (21.5%), (χ^2 =74.2265, $p<0.05$). Significantly more learners in Grade 8 (45.2%) than in Grade 10 (17.0%) were classified as current smokers (χ^2= 40.8025, $p<0.05$).

Table 4.6 Percentage (with 95%CIs) of black female high school learners who used alcohol by grade

Variable	Lifetime alcohol use[a]	Current alcohol use[b]	Initiation <12 years[c]
Grade			
8	61.4 (54.8 – 68.0)	43.5 (36.7 – 50.3)	26.1 (20.2 – 32.0)
9	74.4 (68.3 – 80.5)	50.0 (42.9 – 57.1)	16.4 (11.2 – 21.6)
10	40.5 (33.7 – 47.3)	28.4 (22.4 – 34.4)	4.6 (1.8 – 7.4)
11	63.2 (55.0 – 71.4)	32.5 (25.4 – 39.6)	9.0 (4.6 – 13.4)

[a] Ever used alcohol in their lifetime
[b] Used alcohol on one or more days in the 30 days preceding the study
[c] Used alcohol for first time before the age of 12 years

Table 4.6 summarizes the prevalence of alcohol use among black female high school learners in grade 8 to 11. Below follows a brief exposition of the prevalence of alcohol use as reported by these groups. Results will be reported in terms of lifetime use, current use (30 days preceding the study), and age of onset.

4.4.2 Alcohol use: Significantly more learners in Grade 9 (74.4%) compared to Grade 10 learners (40.5%) had ever used alcohol (χ^2 =48.8850, p<0.05). The highest prevalence of learners classified as current alcohol users were in Grade 9 (50.0%) followed by those in Grade 8 (43.5%) (χ^2=22.3306, p<0.05). There was also a significant difference in the frequency of learners who had their first drink of alcohol before the age of 12 years grade. Significantly more Grade 8 learners (26.1%) compared to Grade 10 learners (4.6%) had their first drink of alcohol before the age of 12 years (p<0.05).

Table 4.7 Percentage (with 95%CIs) of black female high school learners who used drugs by grade

Variable	Lifetime drug use[a]	Current drug use[b]	Initiation <12 years[c]
Grade			
8	8.5 (4.7 – 12.3)	7.6 (4.0 – 11.2)	0.5 (-0.5 – 1.5)
9	14.5 (9.5 – 19.3)	11.3 (6.9 – 15.7)	1.0 (-0.4 – 2.4)
10	7.5 (3.8 – 11.2)	4.2 (1.5 – 6.9)	0.9 (-0.4 – 2.2)
11	15.8 (9.6 – 22.0)	12.1 (7.1 – 17.1)	0.6 (-0.6 – 1.8)

[a] Ever used drugs in their lifetime
[b] Used drugs on one or more days in the 30 days preceding the study
[c] Used drugs for first time before the age of 12 years

Table 4.7 summarizes the prevalence of drug use among black female high school learners in grade 8 to 11. Below follows a brief exposition of the prevalence of drug use as reported by these groups. Results will be reported in terms of lifetime use, current use (30 days preceding the study), and age of onset.

4.4.3 Drug use: Significantly more learners in Grade 9 (14.45%) and Grade 11 (15.8%) than those in Grade 8 (8.5%) and in Grade 10 (7.5%) reported ever using drugs in their lifetime (χ^2=9.0253, $p<0.05$). There was no significant difference in the frequency of learners currently using drugs by grade. The highest prevalence of learners using drugs currently was those in Grade 11 (12.1%).

Table 4.8 Percentage (with 95%CIs) of black female high school learners who engaged in behaviours contributing to violence by grade

Variabale	Threatened with weapon[a]	Injured with weapon[b]	Missed school[c]	Involved in physical fight[d]	Injured in physical fight[e]
Grade					
8	20.4 (14.9 – 25.9)	14.9 (10.1 – 19.7)	26.6 (20.5 – 32.7)	34.1 (27.7 – 40.5)	14.6 (9.8 – 19.4)
9	20.9 (15.1 – 26.7)	17.0 (11.7 – 22.3)	20.7 (14.9 – 26.5)	30.6 (24.1 – 37.1)	13.5 (8.7 – 18.3)
10	15.3 (10.5 – 20.1)	8.8 (5.0 – 12.6)	19.5 (13.9 – 25.1)	19.0 (13.7 – 24.3)	14.9 (10.1 – 19.7)
11	21.8 (15.5 – 28.1)	12.0 (7.1 – 16.9)	17.6 (10.9 – 24.3)	26.5 (19.8 – 33.2)	12.7 (9.8 – 17.8)

[a] Threatened with a weapon anywhere in the 30 days preceding the study
[b] Injured with a weapon anywhere in the 30 days preceding the study
[c] Missed school on one or more days in the 30 days preceding the study
[d] Involved in physical fight at least once in the 30 days preceding the study
[e] Injured in a physical fight at least once in the 30 days preceding the study

Table 4.8 summarizes the significant differences in behaviours leading to violence among black female high school learners in grades 8 to 11. Below follows a brief exposition of these behaviours reported by these groups. Results will be reported in terms of significant and not significant differences between these groups.

4.4.4 Behaviours that contribute to violence: Learners in lower grades were more likely to have been involved in a physical fight in the 30 days preceding the study than the learners in the higher grades. Significantly more learners in Grade 8 (34.1%) than in Grade 11 (26.5%) had been involved in a physical fight in 30 days preceding the study (χ^2=13.46, $p<0.05$). There was also a significant increase in the prevalence of learners who had been hit, slapped or physically hurt on purpose by a boyfriend in their lifetime from Grade 8 (8.6%) to Grade 10 (18.6%) (χ^2=9.3096, $p<0.05$). There was an increase in the prevalence of learners who had ever been forced to have sex from Grade 8 to Grade 11. Significantly more learners in Grade 11 (18.9%) when compared to Grade 8 (9.7%) reported ever having been forced to have sex (χ^2=7.9970, $p<0.05$).

There was no significant variation in the prevalence of learners who missed school on one or more days in the month preceding the study by grade. There was no significant variation in the

prevalence of learners who had been threatened by someone with a weapon by grade, but a higher prevalence was reported among the learners in Grade 11 (21.8%). There was no significant variation of learners reported being injured with a weapon once or more on the 30 days preceding the study by grade, but a higher prevalence was found in grade 9 (17.0%). There was no significant variation of learners that had been injured in a physical fight during the 30 days preceding the study by grade. The highest prevalence of learners injured in a physical fight was reported by those in Grade 10 (14.9%).

Table 4.9 **Percentage (with 95%CIs) of black female high school learners who engaged in risky sexual behaviours by grade**

Variabale	Ever had sex[a]	First sex before 14years[b]	More than one sexual partner[c]	Been pregnant ever[d]	Used condom last time[e]
Grade					
8	7.1 (3.6 – 10.6)	1.0 (-0.3 – 2.3)	3.3 (0.09 – 5.7)	2.4 (0.003 – 4.5)	97.1 (94.8 – 99.4)
9	12.3 (7.7 – 16.9)	2.1 (0.1 – 4.1)	6.2 (3.2 – 9.2)	2.1 (0.001 – 4.1)	94.3 (91.0 – 97.6)
10	45.0 (38.1 – 51.9)	5.3 (2.2 – 8.4)	19.0 (13.5 – 24.5)	8.7 (4.9 – 12.5)	75.2 (69.4 – 81.0)
11	36.1 (27.9 – 44.3)	6.6 (2.8 – 10.4)	13.5 (7.7 – 19.3)	10.3 (5.5 – 15.1)	77.1 (70.7 – 83.5)

[a] Ever had sex in lifetime
[b] First sexual intercourse before age 14 years
[c] More than one sexual partner in their lifetime
[d] Ever been pregnant in their lifetime
[e] Used a condom with the last sexual intercourse

Table 4.9 summarizes the significant differences in sexual risk behaviours among black learners in grades 8 to 11. Below follows a brief exposition of these behaviours reported by these groups. Results will be reported in terms of lifetime sexual activity, more than one sexual partner, condom use with last sexual intercourse and incidence of pregnancy.

4.4.5 Sexual risk behaviours: There was a significant increase in the prevalence of learners reporting ever having had sex from Grade 8 to Grade 11 (χ^2=135.415, p<0.05). Significantly more learners in Grade 11 (36.1%) reported ever having had sex than learners in Grade 8 (7.1%). The learners in grade 10 (5.3%) and grade 11 (6.6%) were significantly more likely to report having had their first sexual intercourse before the age of 14 years old. There was also a significant difference between the learners in Grade 8 (3.3%) compared to those in Grade 11 (20.5%) who reported having had more than one sexual partner in their lifetime (χ^2=32.7269, p<0.05). A significantly larger percentage of learners in Grade 11 (10.3%) than Grade 8 (2.4%) had been pregnant (χ^2=42.1342, p<0.05). Significantly more learners in Grade 8 (97.1%) compared to those in Grade 11 (77.1%) reported that they used a condom the last time they had sexual intercourse. Learners in Grade 11 (92.1%) were significantly more likely than those in Grade 8 (74.0%) to indicate that they had been taught about HIV/AIDS at school.

Table 4.10 Percentage (with 95%CIs) of black female high school learners who participated in physical activity by grade

Variable	Participated in sufficient physical activity[a]	Participated in insufficient or no physical activity[b]
Grade		
8	44.7 (37.0 – 51.5)	55.3 (48.5 – 62.1)
9	54.2 (47.2 – 61.2)	45.8 (38.8 – 52.8)
10	52.6 (45.6 – 58.2)	47.4 (40.4 – 54.4)
11	49.6 (41.0 – 58.2)	50.4 (41.8 – 59.0)

[a] Participated in physical activity on 3 or more days in the week preceding the study
[b] Participated in physical activity on 2 or less days in the week preceding the study

Table 4.10 summarizes the incidence of physical activity among black female high school learners in grade 8 to 11. Below follows a brief exposition of the prevalence of physical activity as reported by these groups. Results will be reported in terms of prevalence of physical inactivity in the 7 days preceding the study and reasons given by learners for not participating in physical activity.

4.4.6 Physical inactivity: Learners in Grade 9 (97.4%) were significantly more likely than those in Grade 10 (87.3%) to report participating in physical activity in the 7 days preceding the survey (χ^2=19.00, $p<0.05$). There was no significant variation of learners who engaged in sufficient physical activity in the week preceding the study by grade. A higher prevalence of learners in Grade 9 (54.2%) had engaged in sufficient physical activity in the week preceding the study. There was no significant variation of learners who

participated in insufficient or no physical activity by grade. A higher prevalence of learners in Grade 8 (55.3%) however participated in insufficient or no physical activity in the week preceding the study. Learners in the lesser grades, i.e. Grade 8 (63.0%) were also significantly more likely than those in Grade 11 (45.8%) to not participate in physical activity due to lack of time (χ^2=36.1961, $p<0.05$). More learners in Grade 11 (27.5%) than in Grade 8 (12.0%) did not participate in physical activity due to lack of money. More learners in grade 10 (24.9%) did not participate in physical activity in the week preceding the study due to lack of facilities ($p<0.05$).

4.5 Research Question 4: The fourth research question hypothesized that there were significant differences in the incidence of engagement in health risk behaviours between learners of aged 13; 14; 15; 16 17 and 18 years.

Figure 4.12 Percentage of black female high school learners engaging in smoking, alcohol use and drug use by age.

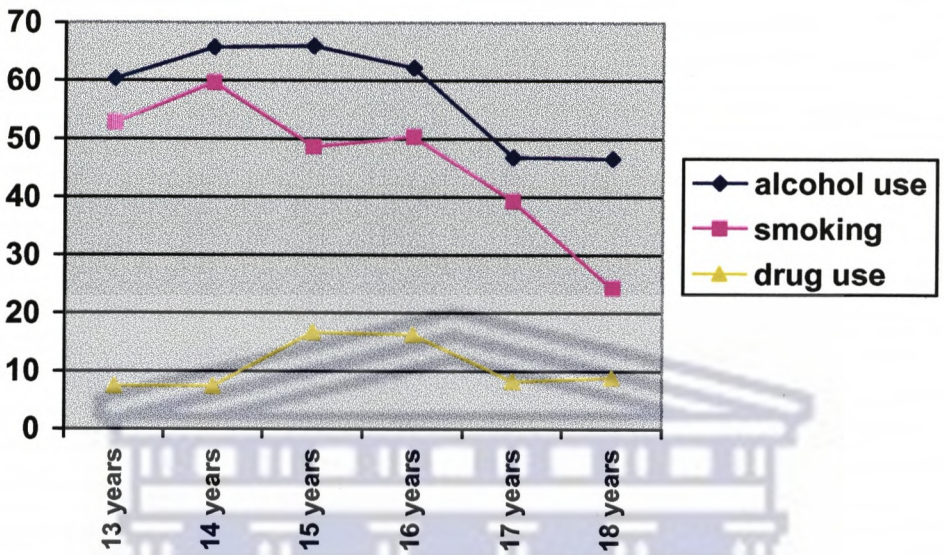


Figure 4.12 summarizes the prevalence of smoking, alcohol use and drug use among black female high school learners aged 13 to 18 years. Below follows a brief exposition of the prevalence of smoking, alcohol use and drug use as reported by these age groups. Results will be reported in terms of lifetime use, current use (30 days preceding the study), and age of onset.

Table 4.11 Percentage (with 95%CIs) of black female high school learners who smoked by age

Variable		Lifetime smoking[a]	Current smoking[b]	Initiation <12 years[c]
Age				
	13	52.8 (39.4 – 66.3)	37.7 (24.7 – 50.7)	32.1 (19.5 – 44.7)
	14	59.7 (51.7 – 67.4)	45.6 (37.8 – 53.4)	25.6 (18.8 – 32.4)
	15	48.7 (40.9 – 56.6)	34.6 (27.1 – 42.1)	14.8 (9.2 – 20.4)
	16	50.4 (41.9 – 58.8)	35.8 (27.7 – 43.9)	7.4 (3.0 – 11.8)
	17	39.3 (31.4 – 47.2)	26.8 (19.5 – 34.1)	4.8 (1.3 – 8.3)
	18	24.3 (17.4 – 31.2)	18.2 (12.0 – 24.4)	4.1 (0.9 – 7.3)

[a] Ever smoked a cigarette in their lifetime
[b] Smoked cigarettes on one or more days in the 30 days preceding the study
[c] Smoked first cigarette before the age of 12 years

Table 4.11 summarizes the prevalence of smoking among black female high school learners aged 13 to 18 years.

4.5.1 Smoking: There was a significant difference in the frequency of lifetime smoking by age (χ^2=39.6725, p<0.05). The highest prevalence of learners reporting ever had smoked a cigarette in their lifetime was the 14 year olds (59.8%) followed by the 13 year olds (52.8%). Learners aged 18 years old (18.2%) had significantly lower rates of current smoking when compared to 14 year olds (45.6%) (χ^2=29.78, p<0.05).

Table 4.12 Percentage (with 95%CIs) of black female high school learners who used alcohol by age

Variable		Lifetime alcohol use[a]	Current alcohol use[b]	Initiation <12 years[c]
Age				
	13	60.4 (47.3 – 73.6)	38.5 (25.3 – 51.7)	32.1 (19.5 – 44.7)
	14	65.8 (58.5 – 73.1)	42.8 (35.1 – 50.5)	31.1 (23.9 – 38.3)
	15	66.0 (58.6 – 73.4)	46.0 (38.1 – 53.9)	12.8 (7.6 – 18.0)
	16	62.2 (54.0 – 70.4)	42.2 (33.9 – 50.5)	3.0 (0.1 – 5.9)
	17	46.9 (38.8 – 55.0)	33.8 (26.1 – 41.5)	3.4 (0.5 – 6.3)
	18	46.6 (38.6 – 54.6)	25.7 (18.7 – 32.7)	11.0 (5.9 – 16.1)

[a] Ever used alcohol in their lifetime
[b] Used alcohol on one or more days in the 30 days preceding the study
[c] Used alcohol for first time before the age of 12 years

Table 4.12 summarizes the prevalence of alcohol use among black female high school learners aged 13 to 18 years.

4.5.2 Alcohol use: The older learners, i.e. 17 year olds (46.9%) and 18 year olds (46.6%) were significantly less likely than the younger learners, i.e. 13 year olds (60.4%) and 14 year olds (66.3%) to report lifetime alcohol use (χ^2=15.666, p<0.05). There was also a significant difference in the frequency of current alcohol use by age (χ^2=11.0006, p<0.005). The highest prevalence of learners using alcohol in the 30 days preceding the study was the 15 year olds (46.0%) followed by the 16 year olds (42.2%). There was a significant difference in the frequency of learners who had their first drink of alcohol before the age of 12 years (χ^2=11.0006, p<0.005).

A significantly higher prevalence of younger learners, e.g. 13year olds (32.1%) had their first drink of alcohol before the age of 12 years when compared to older learners such as 17 year olds (3.4%) and 18 year olds (11%).

Table 4.13 Percentage (with 95%CIs) of black female high school learners who used drugs by age

Variable		Lifetime drug use[a]	Current drug use[b]	Initiation <12 years[c]
Age				
	13	7.5 (3.9 – 11.1)	7.5 (0.4 – 14.6)	1.9 (-1.8 – 5.6)
	14	7.5 (3.4 – 11.6)	6.8 (2.9 – 10.7)	0.6 (-0.6 – 1.8)
	15	16.7 (10.8 – 22.6)	13.5 (8.1 – 18.9)	0.6 (-0.6 – 1.8)
	16	16.3 (10.0 – 22.5)	9.6 (4.6 – 14.6)	0.7 (-0.7 – 2.1)
	17	8.3 (3.8 – 12.8)	7.0 (2.8 – 11.2)	0
	18	8.9 (4.3 – 13.5)	4.8 (1.3 – 8.3)	1.4 (-0.5 – 3.3)

[a] Ever used drugs in their lifetime
[b] Used drugs on one or more days in the 30 days preceding the study
[c] Used drugs for first time before the age of 12 years

Table 4.13 summarizes the prevalence of alcohol use among black female high school learners aged 13 to 18 years.

4.5.3 Drug use: Significantly more learners aged 15 years (16.7%) and 16 years (16.3%) than those aged 13 years (7.5%) and 14 years (7.5%) reported ever lifetime drug use (χ^2=15.2564, p<0.05). There was no significant difference in the frequency of current drug use by

age. The highest prevalence of learners using drugs currently was the 15 year olds (13.5%).

Figure 4.13 Percentage of black female high school learners involved in significant behaviours contributing to violence by age

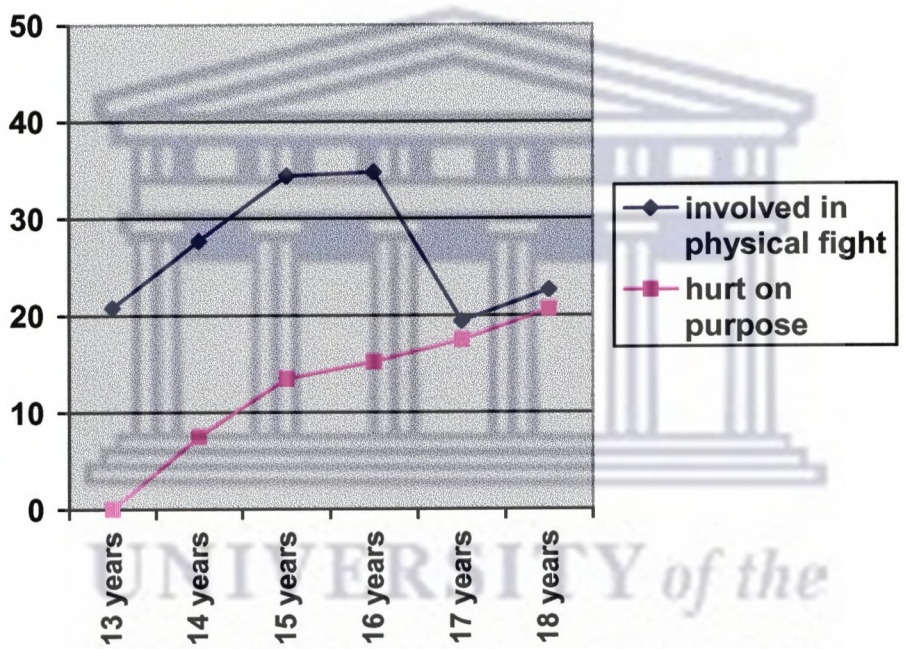


Figure 4.13 summarizes the significant differences in behaviours contributing to violence among black female high school learners aged 13 to 18 years old. Below follows a brief exposition of these behaviours reported by these age groups. Results will be reported in terms of significant and not significant differences between these age groups.

Table 4.14 Percentage (with 95%CIs) of black female high school learners who engaged in behaviours contributing to violence by age

Variabale		Threatened with weapon[a]	Injured with weapon[b]	Missed school[c]	Involved in physical fight[d]	Injured in physical fight[e]
Age						
	13	15.4 (5.6 – 25.2)	15.4 (5.6 – 25.2)	14.0 (4.4 – 23.6)	20.8 (9.9 – 31.7)	11.5 (2.8 – 20.2)
	14	18.9 (12.8 – 25.0)	9.4 (4.9 – 13.9)	20.9 (14.6 – 27.2)	27.7 (20.8 – 34.6)	12.7 (7.5 – 17.9)
	15	20.4 (14.0 – 26.8)	20.1 (13.8 – 26.4)	20.9 (14.5 – 27.3)	34.4 (26.9 – 41.9)	12.3 (7.1 – 17.5)
	16	22.2 (15.2 – 29.2)	13.3 (7.6 – 19.0)	22.4 (15.0 – 29.7)	34.8 (26.8 – 42.8)	20.1 (13.3 – 26.9)
	17	16.8 (10.7 – 22.9)	9.7 (4.9 – 14.5)	22.1 (15.2 – 29.0)	19.4 (12.9 – 25.9)	12.6 (7.2 – 18.0)
	18	20.0 (13.5 – 26.5)	12.2 (6.9 – 17.5)	23.9 (16.9 – 30.9)	22.6 (15.8 – 29.4)	14.4 (8.7 – 20.1)

[a] Threatened with a weapon anywhere in the 30 days preceding the study
[b] Injured with a weapon anywhere in the 30 days preceding the study
[c] Missed school on one or more days in the 30 days preceding the study
[d] Involved in physical fight at least once in the 30 days preceding the study
[e] Injured in a physical fight at least once in the 30 days preceding the study

Table 4.14 summarizes the significant differences in behaviours leading to violence among black female high school learners aged 13 to 18 years.

4.5.4 Behaviours contributing to violence: Learners aged 15 years (34.4 %) and 16 years (34.8 %) were significantly more likely to have been involved in a physical fight in the 30 days preceding the study than the 13 year olds (20.8%) (χ^2=15.023, p= 0.05). There was an increase in the prevalence of learners who had been hit, slapped or physically hurt on purpose by a boyfriend in their lifetime from age 14 to 18 years. Significantly fewer 14-year-old learners (7.5%) than 18 year old learners (20.6%) had been hit, slapped or physically hurt on purpose by a boyfriend in their lifetime (χ^2 =19.0370, p<0.05).

There was no significant difference in the frequency of learners who missed school on one or more days in the month preceding the study by age. There was an increase in prevalence of learners who missed school as age increase 13 year olds, 14.0% vs. 18 year olds 23.9%. There was no significant difference in the frequency of learners who had been threatened by someone with a weapon by age. There was also no significant difference in the frequency of learners that had been injured in a physical fight during the 30 days preceding the study by age. The highest prevalence of learners

injured in a physical fight was reported by the 16 year olds (20.1%). There was also no significant difference in the frequency of learners who had ever been forced to have sex by age.

Figure 4.14 Percentage of black female high school learners reporting risky sexual behaviours by age

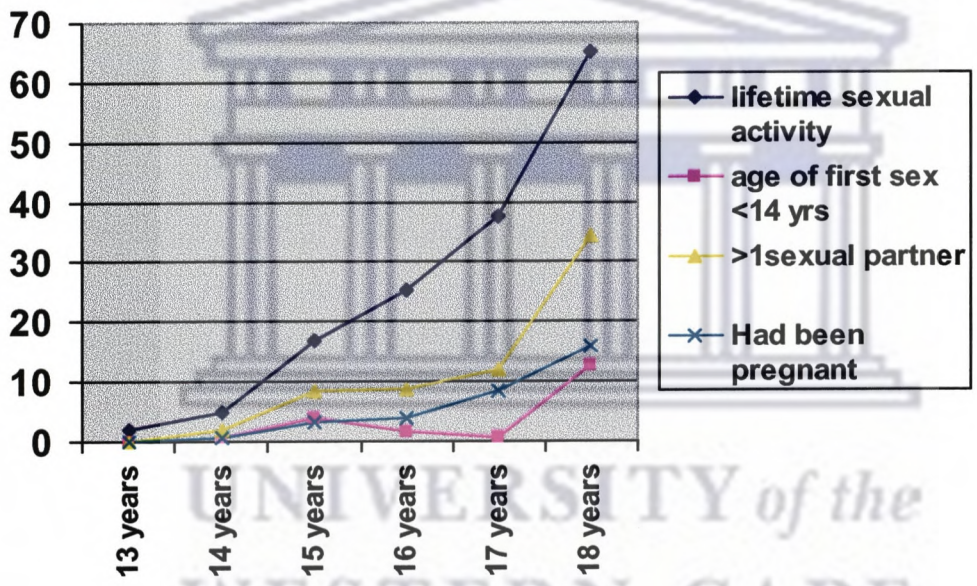


Figure 4.14 summarizes the significant differences in lifetime sexual activity among black female learners aged 13 to 18 years. Below follows a brief exposition of the sexual risk behaviours reported by these age groups. Results will be reported in terms of lifetime sexual activity, more than one sexual partner, condom use with last sexual intercourse and incidence of pregnancy.

Table 4.15 Percentage (with 95%CIs) of black female high school learners who engaged in risky sexual behaviours by age

Variabale		Ever had sex[a]	First sex before 14years[b]	More than one sexual partner[c]	Been pregnant ever[d]	Used condom last time[e]
Age						
	13	1.9 (-1.8 – 5.6)	0	0	0	100.0
	14	5.0 (1.6 – 8.4)	0.6 (-0.6 – 1.8)	1.9 (-0.01 – 3.9)	0.6 (-0.006 – 1.8)	97.5 (95.1 – 99.9)
	15	16.7 (10.8 – 22.6)	3.9 (0.9 – 6.9)	8.4 (4.4 -12.4)	3.2 (0.004 – 6.0)	94.9 (91.4 – 98.4)
	16	25.2 (17.9 – 32.5)	1.5 (-0.6 – 3.6)	8.9 (3.9 – 13.9)	3.8 (0.005 – 7.1)	85.1 (79.1 – 91.1)
	17	37.5 (29.6 – 45.4)	0.7 (-0.7 – 2.1)	12.0 (7.0 – 17.0)	8.5 (3.9 – 13.1)	79.9 (73.4 – 86.4)
	18	65.1 (57.4 – 72.8)	12.7 (7.2 – 18.2)	34.2 (26.8 – 42.2)	15.8 (6.2 – 20.4)	67.5 (59.9 – 75.1)

[a] Ever had sex in lifetime
[b] First sexual intercourse before age 14 years
[c] More than one sexual partner in their lifetime
[d] Ever been pregnant in their lifetime
[e] Used a condom with the last sexual intercourse

Table 4.15 summarizes the significant differences in lifetime sexual activity among black female learners aged 13 to 18 years.

4.5.5 Sexual risk behaviours: Significantly more learners aged 18 years (65.1%) and 17 years (37.5%) reported ever having had sex than learners aged 13 years (1.9%) and 14 years (5.0%) (χ^2=127.6228, $p<0.05$). Significantly more learners aged 18 years (12.7%) than those aged 15 years (3.9%) and 14 years (0.6%) reported having had their first sexual intercourse before the age of 14 years (χ^2 =195.044, $p<0.05$). Significantly more 18 year olds (34.2%) than 14 year olds (1.9%) reported having had more than one sexual partner in their lifetime (χ^2=64.7727, $p<0.05$). Significantly more learners aged 18 years old (15.8%) compared to learners aged 15 years old (3.2%) had been pregnant (χ^2=51.9062, $p<0.05$). A significantly smaller percentage of 18 year olds (67.5%) than 14 year olds (97.5%) reported that they used a condom the last time they had sexual intercourse (χ^2=86.7094, $p<0.05$). A significantly smaller percentage of learners aged 18 years (70.1%) than those aged 13 years (80.4%]) reported that they had been taught about HIV/AIDS at school.

Figure 4.15 Percentage of female high school learners not participating in physical activity due to lack of time, facilities or money

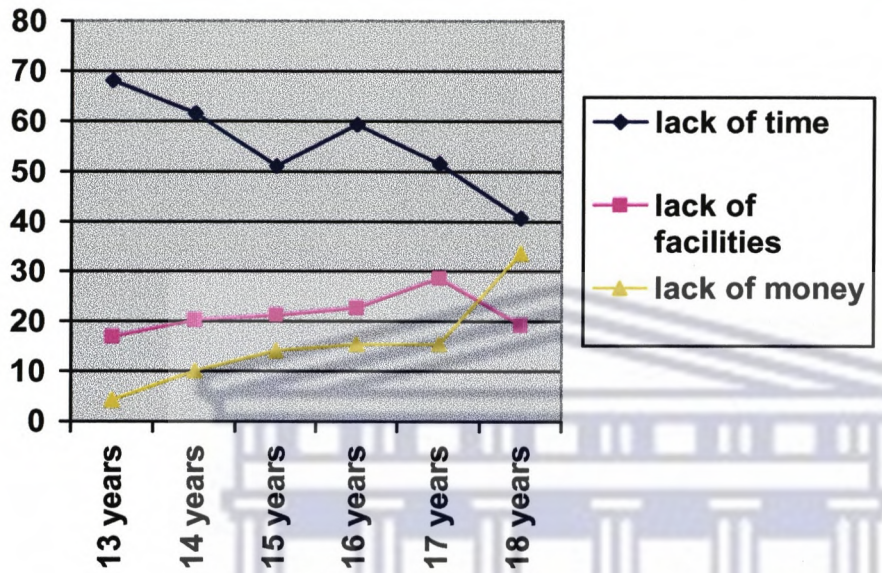


Figure 4.15 summarizes the reasons given by black female high school learners aged 13 to 18 years for not participating in sufficient physical activity. Below follows a brief exposition of the prevalence of physical inactivity as reported by these groups. Results will be reported in terms of prevalence of physical inactivity in the 7 days preceding the study and reasons given by learners for not participating in physical activity.

4.5.6 Physical inactivity: There was no significant difference in frequency of learners reporting that they participated in physical activity in the 7 days preceding the study by age. There was no significant difference in the frequency of learners who engaged in

sufficient physical activity in the week preceding the study by age. A higher prevalence of learners aged 17 years (57.1%) had engaged in sufficient physical activity in the week preceding the study. There was no significant difference in frequency of learners who participated in insufficient or no physical activity by age. A higher prevalence of learners aged 13 years (61.5%) participated in insufficient or no physical activity in the week preceding the study.

There was also a significant difference in frequency of learners who did not participate in physical activity due to lack of time by age. A significantly smaller percentage of 18 year olds (40.7%) than 13 year olds (68.1) did not participate in physical activity due to lack of time (χ^2=80.1972, $p<0.05$). There was a significant difference in frequency of learners who did not participate in physical activity due to lack of facilities. More learners aged 17 years (28.7%) did not participate in physical activity in the week preceding the study due to lack of facilities ($p<0.05$). There was also a significant difference in frequency of learners who did not participate in physical activity due to lack of facilities. Again more learners aged 17 years (28.7%) did not participate in physical activity in the week preceding the study due to lack of facilities ($p<0.05$). There was no significant difference in frequency of learners reporting that they watched television for 3 or more hours on a normal school day by age.

There was no significant difference in frequency of learners reporting that they played video or computer games on a normal school day by age.

4.6 Research Question 5: The fifth research question hypothesized that there were significant differences in engagement in health risk behaviours between female learners based on affiliation to religious organizations.

Figure 4.16 Percentage of black female high school learners who smoked, used alcohol and drugs by reported religious affiliation

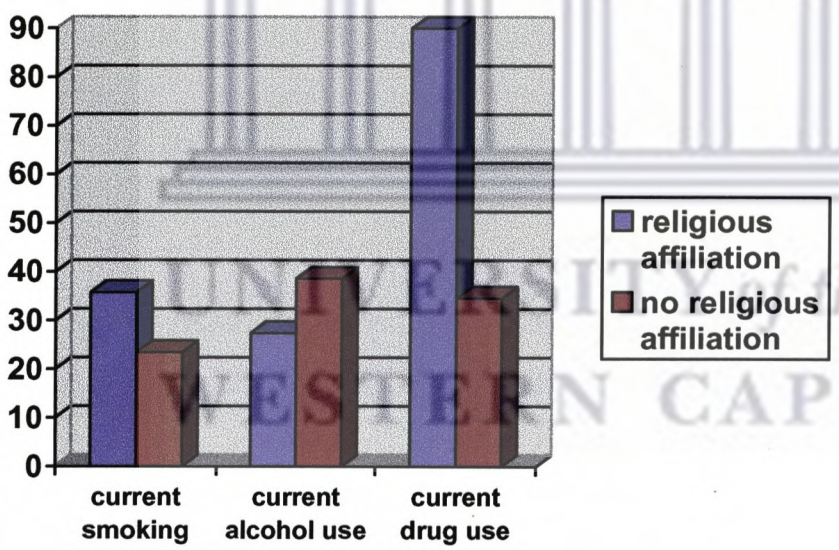


Figure 4.16 summarizes the prevalence of smoking, alcohol use and drug use among black female high school learners by religious affiliation. Below follows a brief exposition of the prevalence of smoking, alcohol and drug use as reported.

Results will be reported in terms of lifetime use, current use (30 days preceding the study), and age of onset.

4.6.1 Smoking: No association was found between lifetime cigarette smoking and reported religious affiliation (χ^2=7.6898, p>0.05). Significantly more learners reporting religious affiliation (35.8%) were classified as current smokers than those who reported no religious affiliation (23.5%) (χ^2=5.7089, p<0.05).

4.6.2 Alcohol use: Significantly more learners reporting religious affiliation (61.4%) had reported lifetime alcohol use compared to those (48.0%) that reported no religious affiliation (χ^2=6.1777, p<0.05). No association was found between current alcohol use and religious affiliation (χ^2=0.1220, p>0.05).

4.6.3 Drug use: No association was found between lifetime drug use and reported religious affiliation (χ^2=1.1837, p>0.05). No association was also found between current drug use and reported religious affiliation (χ^2=0.5021, p>0.05).

4.6.4 Behaviours contributing to violence: There was no significant difference in frequency of learners who missed school on one or more days in the month preceding the study by reported religious affiliation (χ^2=0.1653. p>0.05). No association was found between

reported religious affiliation and ever having been threatened with a weapon (χ^2=0.249, p>0.05); injured with a weapon (χ^2=0.035, p>0.05); and being involved in a physical fight (χ^2=0.018, p>0.05). There was also no significant difference in frequency of learners who had been hit, slapped or physically hurt on purpose by a boyfriend, by religious affiliation (χ^2=0.006, p>0.05). No association was found between ever having been forced to have sex and reported religious affiliation (χ^2=0.3022, p>0.05).

Figure 4.17 Percentage of black female high school learners engaging in selected sexual risk behaviours by reported religious affiliation

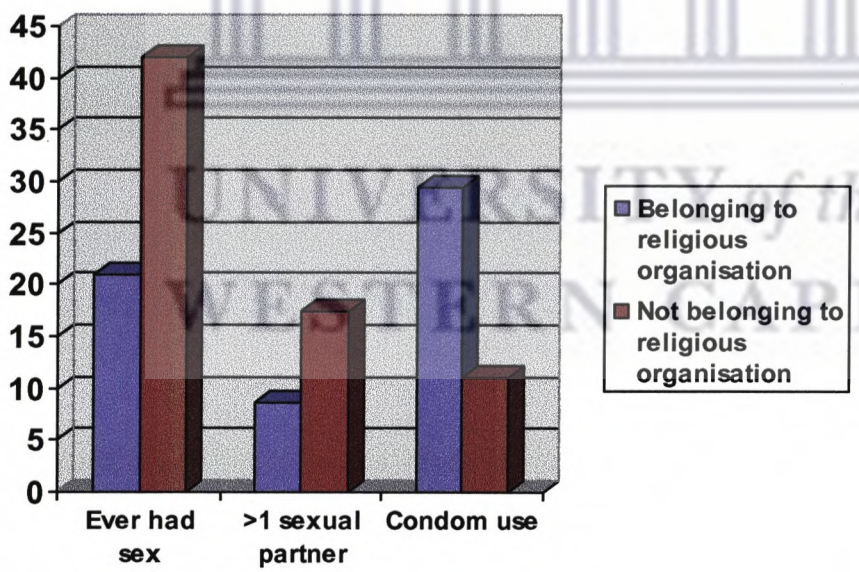


Figure 4.17 summarizes the prevalence of sexual risk behviours among black female high school learners by religious affiliation. Below follows a brief exposition of the sexual risk behaviours reported. Results will be reported in

terms of lifetime sexual activity, more than one sexual partner, condom use with last sexual intercourse and incidence of pregnancy.

4.6.5 Sexual risk behaviours: Significantly fewer learners reporting religious affiliation (21.0%) reported ever having had sex than those reporting no religious affiliation (42.0%) (χ^2=21.5784, $p<0.05$). Significantly more learners reporting no religious affiliation (17.4%) reported having had more than one sexual partner than those reporting religious affiliation (8.7%) (χ^2=7.0985, $p<0.05$). No association was found between ever having been pregnant and reported religious affiliation (χ^2=0.932, $p>0.05$). Significantly less learners reporting no religious affiliation (11.0%) used a condom the last time they had sexual intercourse than those reporting religious affiliation (29.5%) (χ^2=30.357, $p<0.05$). No association was found between ever having received HIV/AIDS education at school and reporting religious affiliation (χ^2=4.816, $p>0.05$).

4.6.6 Physical inactivity: There was no association found between engaging in sufficient or insufficient or no physical activity and reporting religious affiliation (χ^2=2.1427, $p>0.05$).

4.7 **Research Question 6:** The sixth research question hypothesized that there are significant differences in engagement in health risk behaviours

between female learners based on their knowledge of the consequences of health risk behaviours.

Figure 4.18 Percentage of black female high school learners reporting lifetime cigarette smoking, alcohol and drug use by knowledge of consequences of these on their health

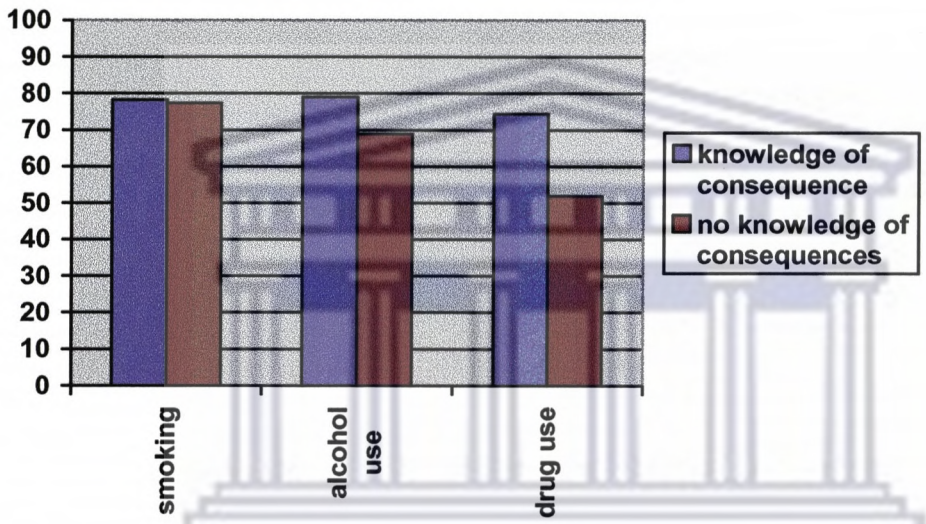


Figure 4.18 summarizes prevalence of smoking, alcohol and drug use among black female high school learners by knowledge of the consequences of these behaviours on their health. Below follows a brief exposition of these behaviours as reported.

4.7.1 **Smoking:** More than three quarters (77.7%) of the learners knew what the effect of smoking was on their health. There was no significant difference in the frequency of learners who reported lifetime smoking based on their knowledge of the consequences of

smoking on their health ($p>0.05$). 78.3% of the learners that reported lifetime smoking and 77.3% that reported no lifetime smoking were knowledgeable about the consequences of smoking on their health.

4.7.2 Alcohol use: Almost three-quarters (74.8%) of the learners knew what the effects of alcohol were on their health. There was a significant difference in the frequency of learners who reported lifetime alcohol use based on their knowledge of the consequences of alcohol use on their health (χ^2=10.599, $p<0.05$). 79.0% of the learners that reported lifetime alcohol use and 68.9% that reported no lifetime alcohol use were knowledgeable about the consequences of alcohol use on their health.

4.7.3 Drug use: Over half (54.5%) of the learners knew what the effects of drugs were on their health. There was a significant difference in the frequency of learners who reported drug use based on their knowledge of the consequences of drug use on their health (χ^2 =16.335, $p<0.05$). 74.4% of the learners that reported lifetime drug use and 51.9% that reported no lifetime drug use were knowledgeable about the consequences of drug use on their health.

4.7.4 Behaviours contributing to violence: More than two-thirds (68.2%) of the learners knew what the effect violence had on their health.

Figure 4.19 Percentage of female high school learners reporting lifetime sexual activity by knowledge of consequences of unprotected sex on their health

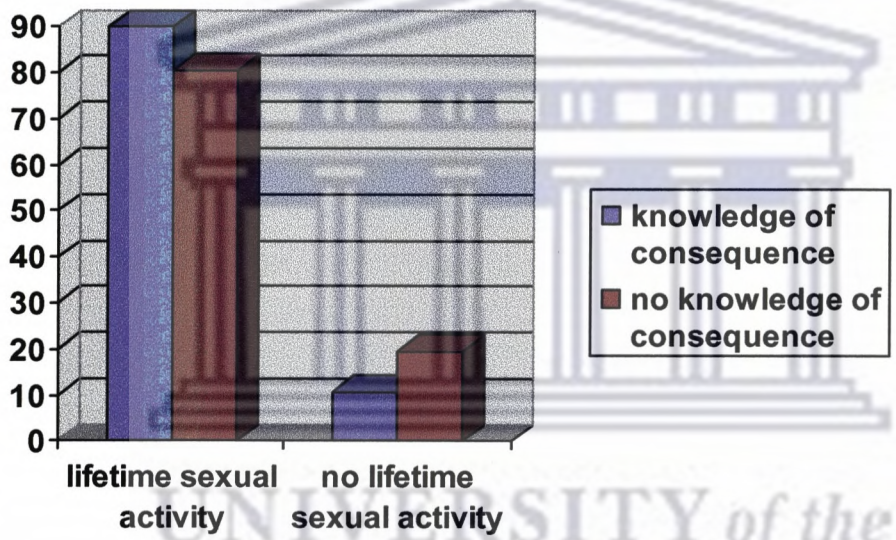


Figure 4.19 summarizes prevalence of lifetime sexual activity among female high school learners by knowledge of the consequences of unprotected sex on their health. Below follows a brief exposition of this as reported.

4.7.5 Sexual risk behaviours: Overall 82.5% of the learners knew what the consequences of unprotected sex were on their health. There was a significant difference in the frequency of learners who

reported lifetime sexual activity bases on their knowledge of the consequences of unprotected sex on their health (χ^2=8.367, $p<0.05$). Almost 90% of the learners reported lifetime sexual activity and 80% who reported no lifetime sexual activity were knowledgeable about the consequences of unprotected sex on their health.

4.7.6 Physical activity: Two-thirds (67.9%) of the learners had knowledge about the effects of physical inactivity on their health.

4.8 Research Question 7: The seventh research question attempted to ascertain the sources/ persons to whom female learners turn for advice about their engagement in specific health risk behaviours.

Learners were asked to select a preferred helping agent from parents/guardian, friends, teacher and doctor or nurse. They could also select the option of consulting no one for the particular problem.

Table 4.16 Percentage of preferred help seeking agents for health risk behaviours

	Helping agent				
Health risk behaviour	**Friend**	**Parent/ Guardian**	**Teacher**	**Doctor/ nurse**	**No one**
Smoking	35.9	11.1	4.2	14.1	34.7
Alcohol Use	33.0	13.5	2.7	6.1	44.7
Drug use	25.7	7.9	3.6	21.4	41.4
Violence	50.2	20.8	5.4	3.8	19.8
Sexual risk	24.2	17.5	7.0	18.2	33.0
Physical inativity	23.6	22.0	5.4	12.2	36.7

Table 4.16 summarizes the sources/persons black female learners turn to for advice about their engagement in specific health risk behaviours. Below follows a brief exposition of these persons as reported by the learners.

Overall the majority of learners (35.1%) preferred not to seek any help or turn to their friends (32.1%) for help or advice. Teachers were the least likely agent (4.7%) the learners would turn to for help or advice.

4.9 SUMMARY

This study aimed to assess the health risk behaviours among black female high school learners in the Strand. A significant number of black female learners

engaged in the health risk behaviours investigated in the study. Significant differences exist between groups, such as "African Black" and "Coloured"; grades 8 to 11; ages 13 to 18 and those knowing the consequences of health risk behaviours and those not.

The outcome revealed that a large percentage of black female high school learners were engaging in health risk behaviours. It is also revealed that a large percentage of black female high school learners are engaging in multiple risk behaviours. Due to the serious implications for these female high school learners engaging in these behaviours, it is necessary to identify means of intervention that are appropriate for them. Additional insights into these learners' attitudes and the factors that influence their choice of behaviour are thus needed. The next chapter therefore focuses on attempting to unpack antecedents to health risk behaviours and to reflect the learners' experiences and explanatory accounts.

CHAPTER FIVE

QUALITATIVE RESULTS

5.1 INTRODUCTION

This chapter contains the results of the content analysis of the focus groups which attempted to answer the eighth and ninth research questions stated in chapter three. These research questions attempted to identify the factors that reportedly predispose learners to engaging in health risk behaviours and subsequently maintain their engagement in health risk behaviours.

The groups were asked to generally discuss a broad question on smoking, alcohol and drug use, behaviours contributing to violence, risky sexual behaviours and physical activity. The learners were relaxed, they laughed when they felt they wanted to and they used a lot of body language during talking.

5.2 EMERGING THEMES

The thematic analysis of the transcripts of the focus groups yielded five main themes:

- Sources providing information about the consequences of health risk behaviours;
- behavioural regulations imposed by significant others;
- peer group factors;
- environmental and/or community factors; and

- personal attitudes and beliefs about health risk behaviours.

Verbatim quotes will be used to further illustrate the abovementioned themes emphasizing the predisposing and maintaining roles of the respective factors.

5.2.1 Sources providing information about the consequences of health risk behaviours

The learners in the focus groups displayed a high awareness of the health consequences of all the health risk behaviours discussed and various sources of information are available to them.

Smoking: As far as smoking was concerned, the learners generally knew what the health consequence of smoking is. During the discussions most of the respondent associated the word "*cancer*" with smoking. Learners were aware that smoking damages their bodies and that it can cause various diseases.

The learners got their information on the dangers of smoking from various sources. Most of the learners stated their source of information on the danger of smoking as their parents and the cigarette packets. The learners however did not seem to take any of these sources seriously. The excerpts below illustrate this.

> *...I see it on the cigarette pack when I buy it. Many see it"*
>
> *Learner, 15 years*

...Parents talk about the consequences, but children does not take them seriously"

Learner 15 years

And another learner added: *"It goes in the one ear and out the other ear, so what does it matter if parents talk about it...*

Learner, 16 years

Alcohol use: A general awareness of the negative consequences of alcohol exists among the learners. Learners agreed that alcohol use has a negative effect on your health. The quotations below elucidate this:

...It pollutes you. Alcohol is just as bad as smoking.

Learner, 15 years

...It affects your liver.

Learner, 17 years

Drug use: The learners in the focus groups displayed a keen awareness of the drugs available, what it looked like, how to use it, its effects and general drug use in their areas. The most well known and frequently used drug seems to be "dagga" as illustrated by statement below:

...Dagga is no longer noticed because it is so every-day, like smoking a cigarette...

Learner, 17 years

Marijuana is commonly known as "dagga" in most of the South African communities.

Other drugs described by learners included "buttons" (mandrax), "tjoef" (crystal meth) and "E" (ecstasy).

...Ecstasy and mandrax are very common here...

Learner, 16 years

Most of the learners were aware of the negative effects and consequences of drug use. The quotations below elucidate this:

...Some go to sleep then they only wake up the next morning...

Learner, 17 years

...You can have a blackout...

Learner, 15 years

There was some disagreement between the learners about the noticeable physical effects of drugs as was expressed in the excerpts below:

...You get very skinny, you look pale. Your eyes peel out and become a red-blue colour around the rim from using so many drugs...

Learner, 18 years

...Not everyone. Because they don't use a lot, but those who use every day – their eyes get like that...

Learner, 17 years

Violence: Learners displayed a deep awareness of the negative effects of violence on their lives and schoolwork. Most of the learners do not like the violence in their areas and school and they are not sure who they can trust as illustrated by following statements:

...I don't like it...

Learner, 15 years

...If the father hits the mother, the children can't be at school and learn because they're thinking, if I go home now, my dad's going to hit me...

Learner, 17years

...I am scared to walk around at night. You are scared in your own house too...

Learner, 17 years

The learners also displayed levels of awareness of relationship abuse. The issue of relationship abuse caused a very heated and animated discussion with everybody wanting to speak at the same time, with a lot of disagreement in the focus groups. These sentiments are illustrated below.

...He will probably hit you if he has a good reason...

Learner, 17 years

...No! Why must he hit you in the first place?...

Learner, 18 years

...I will never allow it!...

Learner, 16 years

Sexual behaviour: A high level of awareness of contraception and safe sexual practices existed among the participants. From the excerpts below it is clear that participants were aware of various methods of contraception.

...The injection. It is all right because you're not going to tell your boyfriend that you are using such things...

Learner, 17 years

...the morning after pill (in response to what type of birth control they are aware of)...

Learner, 18 years

...Use condoms...

Learner, 16 years

A number of learners felt that abstinence is the best way of practicing safer sex. These sentiments were expressed as follows.

...No sex – wait until you are married one day, when you are finished with school...

Learner, 17 years

...No sex (in response to question on what is considered safe sex)...

Learner, 16 years

...Rather stay away or think before you do it...

Learner, 18 years

Various sources of information on safer sex were highlighted by participants. Once again the credibility of these sources is questionable. Do the learners take these seriously? The following quotations elucidate this.

...Yes. It's on TV, radios, everything, newspapers...

Learner, 15 years

...Everything and everything on a daily basis...

Learner, 16 years

Some respondents however felt that the education on HIV/AIDS they received at school was not adequate, as outlined in the excerpts below.

...The information we got at school was not really enough...

Learner, 17 years

Physical activity: When asked what their understanding of the word physical was, most groups had a "fair" understanding of the term as illustrated in the quotes below.

...you're active...

Learner, 15 years

...it prevents you from feeling lazy during the day; it lets you feel good...

Learner, 15 years

The learners expressed awareness of the importance of physical activity although some are not engaging in physical activity. The following quotation illustrates this.

...So that you can be fit. Like me, I am not healthy. I don't eat vegetables and when I'm finished eating, I lie down. That is unhealthy. That's why I need exercises...

Learner, 16 years

It was however not clear whether the participants fully understand the concept of physical activity. The quotation above may be a pointer to the fact that the participants associated physical activity with organized sports/exercises.

5.2.2 Behavioral regulations imposed by significant others

Overall there seemed to be very little control over the learners by their significant others as far as most of the health risk behaviours were concerned.

Smoking: Participants of the focus groups alerted the interviewer to the fact that teenagers access money for cigarettes from their parents without their parents' knowledge. Most of the smoking learners would state that they need money for other things than cigarettes. This is illustrated by the following statement.

...from their parents. They don't say its for cigarettes and then they ask for money...

Learner, 16 years

Participants were in agreement that some parents are aware of their children's smoking and that some parents even smoke with their children. These sentiments were expressed as follows:

...Yes, some see their children smoke...

Learner, 17 years

...Some of them know and some don't know. Some smoke with their parents...

Learner, 16 years

Teenagers often display blatant disregard to authority figures or other adults. This summarized by the following excerpt.

...Don't you tell me, you're not my mother...

Learner, 17 years

Alcohol use: Participants thought there was an equal amount of parents who were aware of their children's drinking and those who were not aware. The quotations below elucidate this.

...They get pocket money. Then they tell their mothers they're going to visit that one, then the parents are sleeping by the time they come back home...

Learner, 15 years

...Some don't know...

Learner, 16 years

...I come home from the club, she (mother) can smell that I was drinking, then she tells me, you must behave yourself then I say, I am safely at home, I came home totally healthy, why wouldn't I behave myself...

Learner, 18 years

There was generally a disapproving response with regard to parents who knew about adolescents' drinking as illustrated below.

...Many of the people know their children drink, but they don't pay attention to it...

Learner, 16 years

...Sometimes the children drink with their parents...

Learner, 17 years

...Yes they drink together, like here [in this community], three out of ten drinks with their parents too...

Learner, 18 years

***Drug use*:** Participants felt that parents are generally not aware of drug use among teenagers, but there were some indication from the participants that some parents are aware of it as indicated by the following statements:

...Yes, they don't know. Or maybe they think the children have been drinking, but who can be drunk for two days in a row? Nobody!...

Learner, 16 years

...No, they only go home when the effect (of drugs) has worked out...

Learner, 16 years

Participants highlighted the fact that adults are not aware that learners use drugs while under their supervision, e.g. teachers at school functions. There was some dispute around the fact if teachers are aware of it or not as reflected in the statements that follow.

...The teachers don't even know but they are present...

Learner, 17 years

...No, it isn't! They tell you not to but they don't know how you can go in there (functions) with pockets full of things, don't know where they hide it (drugs)...

Learner, 16 years

...They hide it in their shoes, so that they can go in, and that's how it is allowed in the club...

Learner, 17 years

Violence: Feelings of mistrust of parents and other adults, such as teachers, were expressed by the participants. This was especially the case when they needed to speak to adults about their problems. Some participants highlighted the fact that if they speak to their parents and are not believed, they internalize their negative feelings.

...For instance, if your stepfather abuses you... and you talk to your mother about it, ... but she doesn't believe you... Your mother might say you are crazy or whatever...now you see – who else can you go to, to talk about it, I can't trust anybody... Then it gets to you, and later on, you are in denial about it...

Learner, 17 years

...You can't just tell anyone, because that one will tell that one and that one will tell another, and so on...

Learner, 16 years

Only a few participants felt that they could talk to their mothers or other adults as expressed in the following statement.

...There are other people... your aunts... if you have a good relationship with them...

Learner, 15 years

Sexual behaviour: Very little reference was made to parents or other adults in the discussion on sexual behaviour. Reference was only made in the context of childcare after unintended pregnancy as illustrated in the excerpts below.

...They leave the baby with their mother...

Learner, 17 years

...In most cases they (parents) would have space for the child...

Learner, 16 years

Physical activity: A desire for parental involvement and control in sporting and physical activities was expressed by the learners as the sentiments below illustrate.

...Parents should get involved...

Learner, 17 years

Through the focus group discussion it became clear that very few parents are actually involved in their children's sport activities.

...Parents are not involved. Not really, maybe two out of ten...

Learner, 15 years

5.2.3 Environmental and/or community factors

Smoking: From the excerpts below it is clear that accessing cigarettes when they are under age does not appear to be a problem for the participants. It also appeared as if learners are not questioned about their age by shopkeepers.

> *...I say it's for my mother...*
>
> *Learner, 15 years*
>
> *...I am built big, so who would say that I'm seventeen years old, they estimate that I'm nineteen years old...*
>
> *Learner, 17 years*

Respondents claimed that learners steal to get money for cigarettes or bullied other learners at school to get money. The following excerpts illustrate this.

> *...they rob you, take your shoes and sell them...*
>
> *Learner, 16 years*
>
> *...they bother the people in the streets. They beg...*
>
> *Learner, 15 years*

It seemed as if the learners' environment were conducive to smoking. Some of the places where they smoke were highlighted by the participants and illustrated by the following quotes, as the school, their own homes and in public.

> *...smoke on the school grounds, behind the toilets, behind the hall...*
>
> *Learner, 15 years*

***Alcohol use*:** There seemed to be confusion about the legal age for buying alcohol as some participants suggested that it is sixteen years. It became clear from the discussions that purchasing alcohol at informal establishments in the community when under the legal age was not regarded as a problem. It was highlighted however that formal business like liquor stores requires some sort of proof of age when youngsters buy alcohol. The discussions seemed to indicate that the environment creates easy access to alcohol with the establishment of shebeens.

...At the yards. Some of the shebeens don't worry, as long as they can make a profit...

(in response to question on where people under eighteen buy alcohol)...

Learner, 17 years

...at the yard...

Learner, 15 years

...At most shops they don't give children under the age of eighteen alcohol...

Learner, 16 years

Being under the legal age to purchase alcohol however does not seem to deter participants from obtaining alcohol. This is illustrated by the following statements.

...Send an older person...

Learner, 15 years

...There are adults who drink, who might not have money, then they think that a young child has money, then they drink with them, and so on...

Learner, 16 years

***Drug use*:** In general drugs do not seem to be as accessible as alcohol and cigarettes, but participants indicated that one must know where to access it as illustrated by the following statement:

> *...You must know the right people...*
>
> *Learner, 16 years*
>
> *...not any place, only certain places...*
>
> *Learner, 18 years*

Although drugs do not seem as easily accessible, there seemed to be a visible use of drugs in the community and their environments.

> *...In the nightclubs, some do tjoef at home, in the room because there you cant smell...*
>
> *Learner, 17 years*
>
> *...At the park, on the field...*
>
> *Learner, 16 years*
>
> *...smoke dagga at school...*
>
> *Learner, 16 years*

Participants were of the opinion that being arrested for the possession of drugs does not deter the person from using drugs in the future. It was also indicated that the jail-period of those arrested for possession of drugs was very short and not adequate.

> *...Those who have bought drugs and are caught by the police, come out and after three months they buy again...*
>
> *Learner, 16 years*

Violence: There was a deep awareness of lack of community safety from the majority of the respondents in the focus groups. They feel unsafe in their homes and their neighbourhoods. There was some disagreement on safety at school. Some learners felt "safe" but the statement below illustrate the uncertainty regarding real safety.

> *...I feel safe. Because there has never been a reason not to feel safe here. Besides the bombs...*
>
> *Learner, 15 years*

Most of the learners however expressed concern about safety at school. Participants felt that schools are accessible for criminals from the neighbourhood to enter. They also expressed concern about the lack of adequate supervision during break times at school. Some quotations illustrating these sentiments are:

> *...Children don't have respect for each other. If I have a juice, then the other girl wants it, or just says so to you...*
>
> *Learner, 15 years*
>
> *...Yes, but there are still children here at school that could shoot you, then one would not feel safe at school...*
>
> *Learner, 16 years*
>
> *...One doesn't feel safe because the teachers don't walk around in the school...*
>
> *Learner, 15 years*

Participants also indicated that vandalism of school property and buildings by high school learners is of great concern.

...Last year they fixed broken windows. Everything was just fixed for a few days, then the windows were broken again...

Learner, 15 years

Safety in their neighbourhoods was also of great concern to the learners. This was expressed by the majority of the participants in the focus groups. This is reflected in the statements below:

...It's very wild there. They shoot each other...

Learner, 15 years

...You hear about someone just across the road.... Where they hit the man with a piece of concrete across the head...

Learner, 16 years

...They steal a lot where I live. The small children hit the plants right out of the pots...

Learner, 15 years

Sexual behaviour: Participants highlighted the fact that birth control and condoms are easy to access at clinics in the community.

...At clinics, free of charge...

Learner, 15 years

...Yes, they are not shy... (in response to question on if it is easy to get condoms at clinics)

Learner, 16 years

Physical activity: There were mixed feelings about the availability of sports facilities in the community. They mentioned quite a number of facilities available in their communities.

...Yes, there are. Netball, soccer, basketball... There are more than enough here...

Learner, 17 years

However, active participation among children in the community was low. Reasons for low participation were given as safety, lack of time and other commitments as illustrated in the following statements:

...It is a bit rough...

Learner, 16 years

...From the time the park was established, about ten children have been hurt there...

Learner, 17 years

...At the park there is no one to supervise...

Learner, 15 years

...Clean the house, do domestic chores, help out my mother...

Learner, 17 years

It was interesting to note that the majority of the participants mentioned time as a barrier to their participation in physical activity but when questioned on what they do with their time, most stated that they watch television.

...Watching TV...

Learner, 15 years

...I usually watch from five o'clock till half-past eight, then I take a break...

Learner, 16 years

5.2.4 Peer group factors

There seemed to be a general acceptance from peers regarding most of the health risk behaviours.

Smoking: There was a general acceptance of smoking among the participants. Even though some participants would not smoke themselves, they would not reject someone as a friend who does. The excerpts below illustrate this:

...It is here with us. Every day, every minute so see someone smoke...

Learner, 15 years

...I would not smoke myself, but I wouldn't say I don't like here because she smokes, and what she smokes...

Learner, 16 years

Apathy was expressed about the consequences for those who smoke as illustrated in the following statements:

...Its not our lungs – its them who will die...

Learner, 15 years

...As long as my life is not in danger, I don't worry about the next person...

Learner, 17 years

There was a sentiment among the participants that smokers will continue to smoke, even if their friends ask them not to. They also expressed concern that they do not have any right to tell friends to stop smoking. Participants felt that although the dangers of smoking are spelled out very clearly, smokers should take responsibility for the own health.

> *...It's not actually for us to say she may not smoke. It is your own decision and you know what the dangers are, and what you are letting yourself in for...*
>
> *Learner, 17 years*
>
> *...So I can perhaps say what the dangers are, and so on, but it depends on her to do what she wants to do, to stop or continue...*
>
> *Learner, 18 years*

Alcohol use: There was mixed reactions to the acceptance of adolescent drinking at first glance. However all the participants agreed that drinking has a negative influence on the adolescent as highlighted by the following statement:

> *...It pollutes you. Alcohol is just as bad as smoking, the one is not better than the other...*
>
> *Learner, 15 years*
>
> *...I don't want to be there, I have better things to do...*
>
> *Learner, 16 years*

In general there seemed to be an acceptance of drinking but not of drunkenness and irresponsible behaviour. There was an acceptance of drinking providing that "you know your limit" and stop drinking when they feel drunk.

...I don't drink until I am drunk like other people in the street who fall, and such; I don't drink to make trouble...

Learner, 17 years

...And many people say, I can't understand it, many people say they drank the evening and the next day they can't remember what they did. It's impossible for me to believe, if I drink tonight then I will know everything that I did tomorrow...

Learner, 16 years

Drinking on special occasions was viewed as acceptable. Participants found drinking with friends as an acceptable form of socialization and stated that drinking helps them to enjoy themselves.

...There are some who are desperate. They just want to have something in their body, in their system, so that they can feel good, or as they say, so that they can get the "feeling"...

Learner, 17 years

***Drug use*:** In general there was a negative reaction to the use of drugs, but there seems to be a passive acceptance of teenagers who do drugs. There seemed to be the idea that the more affluent learners use drugs because of the cost of drugs. Participants felt that buying drugs was a waste of money and could be spend on better things like food as explained in the following quotes:

...Its very expensive. They get a lot of money because they are spoilt. Its mostly spoilt children who do it, and who have money...

Learner, 16 years

...They have so much money but they buy drugs. I would have bought myself a Gatsby, or gone to the Spur...

Learner, 15 years

...What could he have done with R100? He could have bought a proper meal...

Learner, 15 years

Some of the participants highlighted the fact that some stories about drugs scared them into not using it. This is illustrated by following quotation:

...My cousin used it, and she died the first time she tried it, the same evening...

Learner, 15 years

...It scares you...

Learner, 16 years

***Violence*:** There was mixed and heated reactions to the questions with regard to violence, especially relationship abuse, physical violence and school vandalism. Most of the participants agreed that boys who hit their girlfriends are "sissies" and wants to impress their friends. Participants also agreed that girls should stand up for themselves when they are physically abused, otherwise they will have to take part of the responsibility.

...I say, if you put your foot down from the beginning, he won't do it because you have respect for him, maybe then he'll have respect for you too...

Learner, 15 years

...Girls are just as stupid. The girls, who allow it, are not right in the head...

Learner, 17 years

...If the girl sees that the boyfriend begins to lift his hand to her, then she must say no, it's over, because they will continue and they will get hurt...

Learner, 15 years

In response to the issue of school vandalism, there was a feeling of loyalty towards each other, i.e. learners will not report each other to the school authorities, especially when it is a friend as the excerpts below illustrates.

...Maybe I saw her breaking a window; I would not go and report it. Usually the children must report it so that the one who broke the window could pay for it. But if I am her friend, I won't do it...

Learner, 16 years

Sexual behaviour: The majority of the learners felt that the choice of entering into a sexual relationship was a personal choice, but expressed concern that safe sex should be practiced. The majority of the participants felt that learners should concentrate on finishing school first before entering into a sexual relationship as illustrated below:

...Don't have sex while you are young, while you are at school, then maybe you can have a career...

Learner, 15 years

There were mixed feelings about girls who get pregnant while at school. Some participants expressed concern about having pregnant girls. These concerns

included safety of the learner and appropriateness of having a pregnant learner at school. Some participants however felt that girls can still attend school while they are pregnant. These sentiments are illustrated by the following excerpts:

...You can go to school maybe for seven months, and then stay at home for two months...

Learner, 15 years

...People say, "look that child has a big stomach, but she's still at school". It's ugly for a scholar...

Learner, 17 years

...Anything can happen. A child could come running towards you while you are pregnant, and run right into you and then you could lose the baby...

Learner, 16 years

Participants were in agreement that learners who are sexually active are aware of HIV/AIDS but are under the impression that they could not get infected. They were also in agreement when they expressed their fear of HIV/AIDS. The quotations below elucidate this.

...But they are still stupid. They don't think it's going to happen to them...

Learner, 17 years

...There is no guarantee that you can't get Aids. Rather stay away or think, before you do it...

Learner, 17 years

...If I decide one day that I am ready then I will first have myself tested and that person with whom I want to have sex must also have him tested...

Learner, 16 years

Physical activity: It became clear from the discussion that most of the learners were physically inactive. Some of the reasons for their physical inactivity related to peer group factors, such as appearance, fear of making a fool of themselves and lack of interest.

To a large number of participants appearance hindered them from becoming physically active both at school and outside of school. The following quotations illustrate these sentiments around body image and self-consciousness.

...At primary school you were still a bit skinny, but now...everyone laughs at you...

Learner, 15 years

...And you are embarrassed about your body, how you look...

Learner, 17 years

...They laugh at you. Some of the things are too difficult...

Learner, 17 years

5.2.5 Personal attitudes and beliefs about health risk behaviours

Most of the attitudes and beliefs among the participants centered on fitting in with their peers and engaging in health risk behaviours when problems at home are present.

Smoking: Some participants conveyed a negative attitude towards smoking as expressed in following quotation.

...It's a bad habit...

Learner, 15 years

Participants believed that if their mothers smoked, they would not be able to smell tell that their teenagers smoke. This is elucidated by the following quotation.

...If your mother smokes, then they can't smell you smoked...

Learner, 16 years

They believed that young people smoke to act grown up and they are "cool" if they smoke. These sentiments are illustrated by the following statements.

...They are too young to smoke, but they act as if they are grown up by showing other children they can smoke already...

Learner, 18 years

...If they smoke with their friends they think they are cool...

Learner, 17 years

Most of the participants were of the belief that it is better to smoke than to drink as illustrated by following statements.

...It's better to smoke...

Learner, 16 years

...If you drink, you feel sick the next morning. If you smoke, you feel nothing...

Learner, 17 years

***Alcohol use*:** Participants came to the conclusion that some learners drink because they have problems at home and see it as a solution.

...Some teenagers who drink have problems at home, so they run towards the wrong thing. It is the only solution they can think of...

Learner, 15 years

...They drink to forget their problems, but it doesn't help, the day after tomorrow you still sit with those very same problems...

Learner, 17 years

A lot of the participants were convinced that you have to use alcohol if you want to enjoy yourself at social functions as illustrated below.

...Now as I was saying, to enjoy myself, I just felt like drinking...

Learner, 16 years

... I don't drink daily, but if I go to special occasions, like the last time when the school had a dance, then I drank...

Learner, 16 years

***Drug use*:** As was the case with alcohol use, most participants felt that learners use drugs to help them forget about their problems, especially problems at home.

...They use it because they don't want to be home, there are problems...

Learner, 17 years

...Most children don't want to be at home because there are problems...

Learner, 15 years

The participants were of the opinion that drugs are very popular at parties and nightclubs because of its effects. They also felt that it is the more affluent children that use drugs. These sentiments are reflected in the quotations below.

...They get a lot of money because they are spoilt. It's mostly the spoiled children who do it, and who have money...

Learner, 15 years

...Yes, it's very popular at parties. They say it makes you feel like working the next day...

Learner, 17 years

***Violence*:** A sense of hopelessness came through in the focus group discussions. The learners expressed the concern of not being safe anywhere i.e. at school and in their neighbourhoods as illustrated below. They were also of the opinion that people are evil and increasingly violent.

...I am scared to walk around at night...

Learner, 17 years

...You are scared in your own house too, when they can come charging in at any time...

Learner, 16 years

...They are waiting for you outside your house, outside your front door...

Learner, 16 years

The same sense of hopelessness and mistrust came through with regards to help seeking in relation to violence. They felt that adults, i.e. parents and

teachers, cannot help and that they are not concerned about the effect of violence on the learners.

...You don't always think that you can trust them (adults), or take them into your trust if you tell them these things...

Learner, 16 years

...You can't tell anyone, because that one will tell that one and that one and so on...

Learner, 16 years

...Here I won't talk to them, because they just sit there, they drink at the yards, they don't care about us...

Learner, 17 years

Sexual behaviour: Throughout the focus group discussions it became clear that learners believed that condoms are not necessarily safe as elucidated below.

...Condoms ... it's not hundred percent safe...

Learner, 17 years

...Condoms are not safe anymore...

Learner, 16 years

Some of the learners expressed concern on the subject of using other methods of birth control. They believed that they would be harassed by their boyfriends to have sex or that they their boyfriends will take advantage of them as illustrated by following quotations.

...As soon as you tell him, he's going to take advantage of you. He's going to say I must do it (sex) all the time because now he knows I can't get pregnant...

Learner, 16 years

Physical activity: Learners in the focus groups were of the opinion that sports/physical activity can keep them out of trouble in the community but there is low interest in participation.

...Will keep them out of trouble. Yes, but children don't want to participate anymore...

Learner, 15 years

...They don't feel comfortable practicing sport, or they don't like sport...

Learner, 17 years

Learners also confided that they are not living healthy lifestyles, that they are not participating in physical activity and that they are not eating correctly.

... I don't eat vegetables and when I'm finished eating, I lie down. That is unhealthy. That's why I need exercises...

Learner, 16 years

5.3 SUMMARY

Results of qualitative data help us to understand some of the factors that predispose black female high school learners to engage in health risk behaviours. It is also helps us to understand the factors that help to maintain their

engagement in health risk behaviours. The next chapter will present an integrated discussion of the qualitative and quantitative data.

CHAPTER 6

DISCUSSION

6.1 INTRODUCTION

This chapter presents an integrated discussion of the results presented in the preceding two chapters. The issue of integration, the stage of the research process at which data are combined, demonstrates the complexity of mixed methods research and the need to be explicit about the model of inquiry being used. Several authors has cautioned against the challenging task of integrating data of mixed methods research (Borkan, 2004; Johnson and Onwuegbuzie, 2004; Creswell, et al., 2004). These authors further state that, although the task seems daunting, when used in combination, and integrated, this type of investigation has the advantage of the deep descriptions and entrée to subjects' lived realities explored by qualitative methods and the potential to contribute to the generalizability and statistical reliability that is the strength of quantitative research.

As outlined in chapter 3 of this thesis, the current study utilized a sequential explanatory strategy. This strategy is characterized by the sequential strategy of the collection and analysis of quantitative data followed by the collection and analysis of qualitative data that is complementary to the quantitative data set. In this manner there are two data sets which are complementary and thus enrich the ensuing analysis of the data pursuant to answering the research questions.

According to Creswell (2003), the priority is typically given to the quantitative data and the two methods are integrated during the interpretation phase, as is the case with the current study. This integration at point of data interpretation leads to a richer and multidimensional address of the research questions. The mixed methods approach thus allows the researcher to approach the questions from different viewpoints and that these two data sets can be seen as two different lenses through which the researcher views the questions posed in the study. The straightforward nature of this design is one of its main strengths as it is easy to implement because the steps fall into clear, separate stages.

Hence to facilitate the integration of the two sets of data outlined in the preceding two chapters, this chapter is organized so that the discussion follows a thematic approach rather than a discussion of individual research questions. Five themes are discussed including: Substance use, behaviours contributing to violence, sexual risk behaviours, physical inactivity, and help-seeking behaviours. Discussion of each theme will constitute a triangulation of the quantitative data set, the qualitative data set, and the salient literature on that theme. Substance use will incorporate the findings pertaining to alcohol use, smoking and drug use. Below follows an exposition of the major results subsumed in each theme, as well as the implication of these findings for intervention and prevention of health risk behaviours.

6. 2 SUBSTANCE USE

Substance use, in the form of smoking, alcohol and drug use in South Africa is an ever-increasing health problem and the current study provides evidence that the prevalence of these behaviours remain a public health concern. This study shows that the overall prevalence for lifetime cigarette smoking is 45.1% and 32.5% for current smoking. Lifetime and current alcohol use prevalence rates in the study were 57.8% and 37.7% respectively. The study shows that the prevalence of lifetime drug use among female high school learners is 11.3% and for current drug use is 8.4%. These prevalence rates are similar to findings in other local and international studies (Madu and Matla, 2003; Reddy et al., 2003; Takara & Wake, 2003; Grunbaum et al., 2002; Johnston, O'Malley & Bachman, 2002; Kann, 2001; Kann et al., 2000; White et al., 2000; Daly, 1999). Comparisons should nevertheless be made with caution as these studies might differ methodologically.

Significant differences between "Coloured" and "African Black" female high school learners were observed for cigarette smoking, alcohol and drug use. "Coloured" female high school learners were significantly more likely to report lifetime and current cigarette smoking, alcohol and drug use. However, the relatively low rate of smoking among "African Black" female learners is in keeping with the smoking rate of their female adult counterparts (South African Demographic and Health Survey, 1998). Another fact that must be taken into consideration is that cigarette smoking by "African Black" females has

traditionally been considered socially unacceptable, although these social taboos on smoking appear to be abating (King et al., 2003). Culturally, alcohol drinking is also more acceptable among males than females in "African Black" South African communities. Migration from rural to urban areas may however result in a decrease in the influence of family and community, thus increasing the chances of experimentation and use of cigarettes, alcohol and drugs. The protective factors for "African Black" learners thus need to be further investigated to inform prevention strategies as there has been growing evidence in recent years that female substance use has been steadily on the rise for some time (Roche and Deehan, 2002).

A trend for the smoking, alcohol use and drug use rates to decrease from Grade 8 to Grade 11 for both lifetime and current use was observed. These findings are in stark contrast with numerous local studies (Reddy et al., 2003; Madu and Matla, 2003; Flisher et al., 2003) and international studies (Kann et al., 2000) where smoking correlates positively with scholastic grade. The discrepancies in the prevalence of smoking, alcohol and drug use for these grades between the present study and those done by Reddy et al. (2003) and Madu and Matla (2003) might be attributed to the presence of older learners in lower grades. In the present study almost 20% of the learners in grade 8 and 9 were aged between 16 and 18 years of age. A significant difference between younger and older female learners was also found for smoking, alcohol and drug use. This is in stark contrast with the findings of the 1st South African National Youth Risk

Behaviour Survey (Reddy et al., 2003) and Madu and Matla (2003) where smoking, alcohol and drug use increased with age. International studies also reflected an increase in smoking, alcohol and drug use with increasing age (Rail et al., 2003).

A considerable number of learners initiated smoking, alcohol use and drug use before the age of 13 years of age (13 – 14% for smoking and alcohol use; 0.7% for drug use). The early age of smoking initiation premeditates the increased danger that children who begin smoking at an early age are more likely to become habitual smokers (Call et al., 2002). It is also recognized that nicotine is an extremely addictive substance, thus once adolescents become regular smokers, quitting is extremely difficult as physiological needs are satisfied by tobacco (Pletcher and Schwarz, 2000). The early age of first alcohol use is also worth mentioning as research has shown that early age of drinking is associated with frequent heavy drinking in life (Hingson et al., 2000). Research has also clearly indicated that it is more cost-effective to prevent initiation of drug use than to intervene after patterns of use has been established (Beyers, Toumbourou, Catalano, Arthur and Hawkins, 2004; Tengs, Osgood and Chen, 2001).

Noteworthy is the co-occurrence of smoking, alcohol and drug use. Several researchers have reported on their finding that cigarette smoking in adolescence represents a crucial entry-point to alcohol and illicit drug use (Flemming et al. 2002; Őzcan and Őzcan, 2002; Teall and Graham, 2001; Swart et al., 1998;

Ennet et al., 1994). In the present study 85.3% of the female high school learners reporting lifetime smoking also reported lifetime alcohol use. Furthermore 22.8% of the female high school learners reporting lifetime cigarette smoking also reported lifetime drug use. This should be a pointer to the fact that preventive programs cannot only concentrate on one risk behaviour but multiple risk behaviours.

On further examination of factors that predispose and maintain the female high school learners' engagement in substance use, a variety of aspects were unearthed. In the present study more than three quarters (77.7%) of the learners reported that they knew what the consequences of smoking for their health were, 74.8% knew what the consequence of alcohol use for their health were and 54.5% knew what the consequences of drug use for their health were. Learners also displayed a keen awareness of the dangers of smoking, alcohol and drug use upon questioning through the focus group discussions.

"...I see it on the cigarette pack when I buy it. Many see it..."

"...It pollutes you. Alcohol is just as bad as smoking..."

Though not a test of the Social Consensus Model, this thesis examines related hypotheses suggesting that knowledge of a health threat, and possible ways to avoid the threat, inevitably raises social issues that require further resolution before appropriate action can be taken. Despite their keen awareness of the health consequences they still engaged in smoking, alcohol and drug use. Consistent with the Social Consensus Model described by Romer and Hornik

(1992), the social environment will inevitably support alternative and more risky responses that people can adopt even though these responses may be consistent with people's knowledge. The study thus provides evidence that interventions that rely primarily on increasing female high school learners' knowledge of negative consequences of substance use will inevitably be unsuccessful. These findings however do not imply that these female high school learners knew everything they need to know about the risks of substance use or that they fully understand the negative consequences. The findings however suggest that social barriers may have stood in the way of adopting safer behaviour even if basic knowledge about the health threat has been acquired.

Upon investigation of the social environment of these black female high school learners it became clear that accessing cigarette, alcohol and drugs when they are underage does not appear to be a problem as illustrated below:

> "*...I say it's for my mother...*" and
>
> "*...I am built big, so who would say that I'm seventeen years old...*"
>
> "*...Some of the shebeens don't worry as long as they can make a profit...*" *(In response to question on where people under eighteen buy alcohol)*

In spite of the South African legislation banning the sales of cigarettes to children, an alarming percentage of underage children smoke, as highlighted by this study. Yach and Parry (1995) also observed that 89% of 12-14 year olds in their study reported to have succeeded in buying cigarettes from outlets. Results of these studies help us to understand some of the social factors that undergird

adolescent smoking habits, particularly the convenient availability of cigarettes and the lack of legal regulation of the retail of cigarettes.

In this study a number of factors in the environment could also be seen as contributing to adolescent alcohol use. Some of these factors are the easy access to alcohol for under-aged learners at local shebeens (informal pubs in the community). A much lower prevalence of drug use as compared to smoking and alcohol use was observed in the present study. A possible explanation for the lower rates of drug use as opposed to smoking and alcohol use in this study could be the accessibility to drugs in their communities. The learners in the study pointed out that although there seemed to be a visible use of drugs in the community; they are not as easily accessible as alcohol and cigarettes as reflected by the excerpt below:

> *"...You must know the right people..."*
>
> *"...not any place, only certain places (in response to where drugs are available)..."*

Research has highlighted that greater availability of drugs and community norms favorable to drug use predict higher levels of adolescent substance use and abuse (Maddahian, Newcomb and Bentler, 1988). Once more in agreement with the Social Consensus Model, contextual antecedent factors could be the reason for lower drug use prevalence in these communities. This study therefore highlights the need to exert continuous pressure on government to strictly enforce the regulations of tobacco and alcohol distribution and availability to

minors. Teal and Graham (2001) also expressed concern that laws limiting youth access to tobacco and alcohol are often not enforced. According to these authors, as is the case in the current study, the majority of adolescents reported never being asked for proof of age when purchasing cigarettes or alcohol.

Numerous researchers have highlighted the fact that living in impoverished family and neighbourhood environments are associated with behaviours such as smoking, alcohol and drug use. These researchers argue that the effect of poverty and adolescents' risk taking is often indirect through its impact on their parents, who become anxious or hopeless and have little energy to focus on effective parenting and monitoring of their adolescent children (Jessor et al., 1995; McLoyd, 1990; Elder, Van Nguyen and Caspi, 1985). This notion is emphasized by the learners in the present study. Learners were in agreement that some parents and other adults are aware of their children's smoking and using alcohol.

> *"...Yes, some see their children smoke..."*
>
> *"...Some of them know and some don't know. Some smoke with their parents..."*
>
> *"...They (adults) think that a young child has money, then they drink with them, and so on..."*

According to Faucher (2003) parents who smoke are known to influence their children's smoking behaviour. Research has also indicated that parental smoking appears to be more influential for girls than for boys (Li, Stanton & Feigelman, 2000; Friestad & Klepp, 1997; Sarason, Mankowski, Peterson & Dihn, 1992). The

greater influence of parental smoking on adolescent girls than on boys has been attributed to a greater need for intimacy and family ties (Van Roosmalen & McDaniel, 1992). Research has also indicated that adults play an important role in socialization of adolescents on the issue of alcohol use. Research has indicated that providing alcohol to an adolescent explicitly indicated approval of underage alcohol use, which may lead to future substance abuse (Foley, Atlman, DuRant and Wolfson, 2004; Baumrind, 1991). As opposed to alcohol and cigarette use, most of the learners were of the opinion that adults and parents were not aware of drug use among learners.

"...Yes, they (parents) don't know..."

"...No, they only go home when the effect (of drugs) has worked out..."

Literature has indicated that the risk factor that was most strongly related to increased drug use was parental attitudes favorable to drug use (Beyers, et al., 2004). This suggests that alteration of individual cognition and skills is only a partial answer to the promotion of safer behaviour. It is thus clear that education should be directed to the entire at-risk population and the larger communities and not only to the black female high school learners. The role of education should thus be to create widespread consensus about the health risks of adolescent smoking, alcohol and drug use targeting the reinforcing agents and factors in the community.

The present study also investigated affiliation to religious organizations and its association with substance use. It is recognized however that religious

involvement or participation takes a variety of forms, such as public participation (attendance at religious services), religious affiliation, and private religious practices (prayer, meditation and reading religious materials). It is further recognized that all these dimensions would have an impact on health but the present study only investigated one of these dimensions. Literature portray religion as complex in nature as an epidemiologic construct (Levin, 1994). Contrary to expectation and to the findings of other researchers (Pletcher and Schwarz, 2000; Forthun, Bell, Peek and Sun, 1999; Bahr, Maughan, Marcos and Li, 1998; Foxcroft and Lowe, 1995; Catalano, Morrison, Wells and Gillmor, 1992) reporting religious affiliation was not a protective factor associated with smoking, alcohol and drug use in the present study. According to Mason and Windle (2001) religious influences have typically been given scant attention in reviews of risk and protective factors for adolescent use. Poulson, Eppler, Satterwhite, Wuensch and Bass, (1998) also believe that religious affiliation and the strength of religious convictions may contribute to a person's decisions about smoking, alcohol consumption and drug use. Zaleski and Schiaffino (2000) however warn that the importance of the religious group as a social referent may diminish when other choices become available. They have found that decreased church attendance has been associated with an increased tendency to drink. A question that comes to mind however, is whether these female high school learners regarded smoking, alcohol and drug use as sins. Although this possibility was not explored it would fit in with prior research that has found that drinking to excess

was not considered as a sin by many of their participants notwithstanding their religious affiliations (Poulson et al., 1998).

6.3 BEHAVIOURS CONTRIBUTING TO VIOLENCE

Violence is a problem of epidemic proportion among youth and this study provides evidence that youth are engaging in violence and violence related behaviours in their community and at school. The current study found that more than 1 in 5 (21.5%) learners missed school during the 30 days before the study because they felt unsafe. Although these findings are consistent with other local studies (Reddy et al., 2003), this high prevalence of learners missing school raises the question of safety at schools. How successful are schools in keeping learners and staff from harm?

On further investigation most of the learners communicated their anxiety about safety at school. Participants felt that schools are accessible for criminals from the neighbourhood to enter. They also expressed concern about the lack of adequate supervision during break times at school. Some quotations illustrating these sentiments are:

> *...Children don't have respect for each other. If I have a juice, then the other girl wants it, or just says so to you...*
>
> *...Yes, but there are still children here at school that could shoot you, then one would not feel safe at school...*
>
> *...One doesn't feel safe because the teachers don't walk around in the school...*

Participants also indicated that vandalism of school property and buildings by high school learners is disturbing:

> *...Last year they fixed broken windows. Everything was just fixed for a few days, then the windows were broken again...*

Worth mentioning is the possible consequence of exposure to school violence. O'Keefe (1997), state that for girls, only exposure to school violence, is a significant predictor of aggression. Additional fears are issues of school connectedness as an adolescent's experience of caring at school and sense of closeness to school personnel and environment. Although school connectedness as such was not examined in this study, the high number of learners missing school could possibly be seen as low school connectedness. Researchers have shown that connectedness to school demonstrates strong association with safer behaviours and better health outcomes during adolescence (Bonny et al., 2000; Resnick et al., 1997; Resnick et al., 1993).

Violent victimization is another source of unease among these female high school learners. In this study almost 1 in 5 (19.3%) of the learners had been threatened with a weapon during the month preceding the study. More than a quarter (27.2%) of the learners in the present study had been involved in a physical fight and 14.1% injured in a physical fight. These findings are consistent with other local studies (Reddy et al., 2003). International and South African data imply that violence is a problem of epidemic proportion among the youth (Soriano et al., 2004; Burrows et al., 2001). Price et al (2002) stated that youth now are

more likely than ever to be met head-on with the daily reality of a ubiquitous model of physical aggression and violence. These findings should be viewed with worry as a growing literature attests to the fact that dating violence is an important public health problem. Living in a violent community creates stress and depression in adolescents and is a significant predictor of acting-out behaviours (O'Keefe, 1997). This sentiment is supported by the learners in the present study when they expressed a sense of hopelessness regarding violence in their communities. They expressed the real concern of not being safe anywhere in their communities.

...It's very wild there. They shoot each other...

...You hear about someone just across the road.... Where they hit the man with a piece of concrete across the head...

Daane (2003) felt that exposure to violence has a dramatic effect on youth causing both emotional scars and violent or delinquent behaviour. Adolescents encounter violence in their homes, community and even in their schools as outlined above.

Dating violence was also experienced by several of the study participants. Overall 13.6% of the black female high school learners in the present study reported having been hit, slapped or physically hurt on purpose by a boyfriend in their lifetime. More than 10% (12.0%) of the female high school learners in the present study reported having been forced to have sexual intercourse against their will. Of great concern is that literature indicates that dating violence among

adolescents is associated with a broad range of physical and mental health concerns (Silverman, et al. 2001; Eisenstat and Bancroft, 1999). There was mixed and heated reactions among the learners to the questions with regard to violence, especially relationship abuse. Most of the participants agreed that boys who hit their girlfriends are "sissies" and want to impress their friends. Participants also agreed that girls should stand up for themselves when they are physically abused, otherwise they will have to take part of the responsibility.

> *...I say, if you put your foot down from the beginning, he won't do it because you have respect for him, maybe then he'll have respect for you too...*
>
> *...Girls are just as stupid. The girls, who allow it, are not right in the head...*
>
> *...If the girl sees that the boyfriend begins to lift his hand to her, then she must say no, it's over, because they will continue and they will get hurt...*

6.4 SEXUAL RISK BEHAVIOURS

Sexual behaviour of youth has been highlighted as a priority for research and service delivery by the Human Immunodeficiency Virus (HIV), Acquired Immune Deficiency Syndrome (AIDS) and Sexually Transmitted Infection (STI) Strategic Plan for South Africa 2000-2005 (Department of Health, 2000). Results from the present study highlights the fact that a substantial number of young people, as a result of their sexual choices they make, are at risk in terms of their sexual health. In this study 27.6% of the black female high school learners reported lifetime sexual activity. Of those sexually active, 45.3% reported having had more than one sexual partner. Half of the sexually active female high school learners

reported condom use the last time they had sexual intercourse and 5.8% of the female high school learners have been pregnant.

A trend for a higher prevalence rate of "African Black" female learners compared to "Coloured" female high school learners for lifetime sexual activity, age of first sexual intercourse, having had more than one sexual partner and incidence of pregnancy was observed. Research has indicated that there is a link between poverty, unemployment, overcrowding, low levels of education and higher levels of adolescent sexual activity (Wood, Maepa & Jewkes, 1997; Du Plessis, Meyer-Weitz & Steyn, 1993). When looking at the racialised social stratification that still characterizes South Africa, it is clear that problems associated with poverty mostly affect "African Black" youth. Poverty may also be linked to discourses that support an unequal distribution of sexual power between men and women. A study done by Whitefield (1999) in South Africa, reported that adolescent girls with lower socio-economic status supported these beliefs to the same extent as their male peers.

It is thus clear from the results discussed above that these black female high school learners put themselves at risk for HIV infection through unprotected sex and having many sexual partners. This is alarming especially since it has been documented that South Africa has a fast-growing HIV/AIDS rate, with the highest prevalence among young people aged between 15 to 24 years, especially females (Hartell, 2005; Stephenson, 2000). On examination of the knowledge

regarding unprotected sexual activity among the female high school learners, over 80% of the female high school learners in the present study reported that they knew what the consequences of unprotected sex were. Almost 80% of the learners also indicated that they received HIV/AIDS education at school. Again in agreement with Romer and Hornik's Social Consensus Model (1992), this knowledge did not act as a protective factor for sexual risk as 58% of the learners who reported lifetime sexual activity did not use a condom the last time they had sex. The present study however only assessed knowledge of unprotected sex and whether they have received HIV/AIDS education at school. Various sources of information on safer sex were highlighted by participants. The credibility of these sources however is questionable. Do the learners take these seriously? The following quotations elucidate this.

> *...Yes. It's on TV, radios, everything, newspapers...*
>
> *...Everything and everything on a daily basis...*

Literature has indicated that, although awareness and knowledge about HIV and AIDS are high among adolescents in South Africa, this has not been translated into substantial behaviour change (Hartell, 2005; Akande, 2001; Galloway, 1999; Madlala, 1997; Visser, 1995; Kuhn, Steinberg and Matthews, 1994). Numerous studies in South Africa have highlighted the serious gaps that exist in the basic knowledge of HIV/AIDS (Delor and Hubert, 2000; Danziger, 1999; Visser & Moleko, 1999; Kupek, Dooley, Whitaker, Petrou and Renton, 1999; Darrow and Oakley, 1998; Blecher, Steinberg, Pick, Hennick & Durcan, 1995). Eaton, Flisher & Aarø (2003) also alerts us to the fact that uncertainty about the proper use of

condoms do exist. These authors further stated that serious misconceptions were held by youth such as, the belief of protection against HIV infection when using hormonal contraceptives and intrauterine contraceptive devices.

It is apparent that adolescents have a relatively good understanding of the ways in which HIV is transmitted and the unsafe nature of their sexual practices, although there is still room for improvement. However, it seems that knowledge and behaviours appear to be unrelated. As shown in this study, as was the case with others (Akande, 2001; Smith, De Visser, Akande, Rosenthal and Moore, 1998) greater knowledge did not result in safer sex practices. Akande (2001) explained that the decision to engage in safe sex is a complex one, determined by numerous factors. Gerrard, Gibbons and Bushman (1996) are also of the opinion that safer sex behaviour demands negotiating with a sexual partner. These authors suggest that teaching youth strategies which will enable them to feel confident in their ability to refuse sexual activities may lead to less risky sexual behaviour. This is again evidence that interventions that rely primarily on increasing these learners' knowledge of negative consequences unprotected sex will inevitably be unsuccessful.

Access to condoms and birth control did not seem to be a problem for the black female high school learners in the present study. Participants highlighted the fact that birth control and condoms are easy to access at clinics in the community. MacPhail & Campbell (2000) agree with the fact that condoms are easily

accessible in communities but cautioned that lack of planning may be a greater problem, since young people do not always have a condom when they need one, and this does not deter them from having sex.

The present study also highlighted the negative perceptions of the female high school learners about condom uses.

> *...Condoms ... it's not hundred percent safe...*
>
> *...Condoms are not safe anymore...*

These findings concur with that of other researchers in South Africa that found that high school learners attitudes towards condoms were largely negative (Richter, 1996; Kuhn et al., 1994).

The fact that learners did not perceive themselves to be susceptible to HIV/AIDS are worth mentioning. Participants of the focus groups were in agreement that learners who are sexually active are aware of HIV/AIDS but are under the impression that they could not get infected. They were also in agreement when they expressed their fear of HIV/AIDS. The quotations below elucidate this.

> *...But they are still stupid. They don't think it's going to happen to them...*
>
> *...There is no guarantee that you can't get Aids. Rather stay away or think, before you do it...*

Eaton et al. (2003) are also of the opinion that many South African youth underestimate their risk for contracting HIV. Research clearly indicates that

relatively few high school students in South Africa believed that AIDS could affect them (Hartell, 2005; Visser, Roos & Korf, 1995; Ratsaka & Hirschowitz, 1995; Friedland, Jankelowitz, De Beer, De Klerk, Khoury, Csizmadia, Padayachee & Levy, 1991). These high school students attributed the problem of HIV/AIDS to prostitutes, promiscuous people, and to white people. Eaton et al. (2003) stated that the tendency to deny the presence of HIV/AIDS in one's own community reduces perceived vulnerability. This tendency usually occurs in communities where there is still a stigma attached to AIDS.

Significantly more learners reporting no religious affiliation reported ever having had sex. The same trend was observed for all the other sexual risk behaviours (i.e. more than one sexual partner, unprotected sex, age of initiation before age of 14 years). Religiosity could thus be regarded as a protective factor for sexual risk. Nicholas & Durrheim (1995) agrees with this in stating that religious youth are more likely to postpone sexual activity and have fewer partners. Several researchers have suggested that highly religious adolescents tend to initiate sex later, have fewer sexual partners and have sex less often than less religious adolescents (McCree, Wingood, DiClemente, Davies and Harrington, 2003; Zaleski and Schiaffino, 2000; Poulson et al., 1998; Lugoe and Biswalo, 1997; Murray, 1994; Miller and Moore, 1990).

Zaleski and Schiaffino (2000) reported that their results among first year college students indicated that religious identification may protect students from sexual

risk-taking and thus may represent an important protective factor against risk among late adolescents. This parallel the findings of Miller and Phil (2002) that religiosity were positively associated with sexual responsibility. These authors suggest that their findings may reflect success on behalf of some religious communities in educating adolescents about the risks in unprotected intercourse. Their findings and that of the present study might inform faith-based initiatives designed to protect adolescent girls against HIV and unplanned pregnancy. Literature has shown that faith-based HIV-prevention programmes may be more acceptable, credible and potentially more effective ways to reach and educate black adolescents regarding HIV prevention (Payton, Williams and Gehl, 1999).

6.5 PHYSICAL INACTIVITY

Physical inactivity has become a major public health concern, contributing to the non-communicable disease epidemic. This study highlights that a substantial number of black female high school learners are physically inactive. More than half, (50.9%) of the learners in the present study participated in insufficient or no physical activity in the week preceding the study. This prevalence is much higher than that (37.5%) observed by Reddy et al. (2003) in the 1st South African Youth Risk Behaviour Survey and the 32% found by Frantz (2005) in a local community in the Cape Town Metropole. The findings of the present study are also in stark contrast to international studies of high school learners which reported 35% of adolescents being inactive (Moore and Werch, 2005). A possible confounding factor in the present study is whether the students fully understood the concept of

physical activity. Several researchers have highlighted the fact that children and adolescents could associate the term physical activity with participation in organized sports such as soccer and/or fitness activities such as aerobic dance (Trost, Morgan, Saunders, Felton, Ward and Pate, 2000; Cardinal, Engels and Whu, 1998; Brustad, 1991). Consequently, potentially important sources of physical activities such as playing active games and walking to school are not taken into account. Researchers worldwide has expressed the concern that many adolescents particularly girls do not meet the recommended amount of physical activity (Pate, Freedson, Sallis, Taylor, Sirad and Trost, 2002; Whitty, 2004). Furthermore these adolescent girls miss out on the health benefits associated with participation in regular physical activity.

The reasons given by learners in the study for not participating in physical activity included lack of money, lack of facilities, and lack of time. An alarming 53.6% of the learners indicated that they could not participate in physical activity due to lack of time. Research has indicated that the most common reason for adolescent physical inactivity is lack of time (Terguson and King, 2002; Tappe, Duda and Ehrnwald, 1989). Could their lack of time be due to the fact that they were spending most of their time in sedentary activities? Overall 63.7% of the learners in the present study reported that they watched television for 3 or more hours on a normal school day. It is also possible that a large group of learners who chose to participate in sedentary activities are unaware of the health benefits of participating in regular physical activity.

Various studies have indicated that participation in physical activity is related to age (Sallis, Prochaska and Taylor, 2000: Sallis, Alcaraz, McKenzie and Hovel, 1999; Sallis, Marilyn, Calfas, Caparosa and Nichols, 1997; Calfas and Taylor, 1994; Sallis and Patrick, 1994). These studies have found the decline of activity level by age to be more profound among female than male adolescents regardless of whether the measure involves physical activity achieved through team sports, physical education class or leisure time. The level of physical activity is known to decrease throughout the entire age span. Sallis et al. (2000) reported that younger children were more active than adolescents.

The current study however found the opposite. Female high school learners aged 13 years old (61.5%) were more likely than the 17 year olds (57.1%) to participate in insufficient or no physical activity in the week preceding the study. Could this trend be explained by the reasons given by the learners for not participating in physical activity? Significantly more learners aged 13 years old (68.1%) than learners aged 18 years old (40.7%) did not participate in physical activity in the week preceding the study due to lack of time. With mounting evidence indicating a significant increase in chronic diseases of lifestyle it is thus of utmost importance that young female learners are made aware of the health benefits of participating in physical activity at a very early age.

Although the participants were aware of the consequences of a sedentary lifestyle their choices of activities did not reflect this. In accordance with the

Social Consensus Model, the environmental factors influencing their choices must therefore be examined. There were mixed feelings about the availability of sports facilities in the community. The respondents mentioned quite a number of facilities available in their communities. However, active participation among children in the community was low. Reasons for low participation were given as safety, lack of time and other commitments as illustrated in the following statements:

> *"...It is a bit rough..."*
>
> *"...From the time the park was established, about ten children have been hurt there..."*
>
> *"...At the park there is no one to supervise..."*

Moody, Prochaska, Sallis, McKenzie, Brown and Conway (2004) argue that, although parks have the potential to support youth physical activity, these objectives are seldom met either because of the state of the facilities or their location. A study done by Sallis, Conway, Prochaska, McKenzie, Marshall and Brown (2001) identified supervision as a critical determinant of youth physical activity. These authors and Spangler (1999), state that involving community members should be encouraged to provide support and supervision at these parks. Pate, Trost, Mullis, Sallis, Wechsler and Brown (2000) are of the opinion that most of the intervention efforts for youth physical activity has focused exclusively on schools and therefore efforts should include communities. Terguson and King (2002) also found that adolescents wish to become physically

active but do not have a safe place to become physically active or lack the means to get to a safe place.

It was interesting to note that the majority of the participants mentioned time as a barrier for their participation in physical activity but when questioned on what they do with their time, most stated that they watch television.

> *...Watching TV...*
>
> *...I usually watch from five o'clock till half-past eight, then I take a break...*

Terguson and King (2002) recommend that physical education classes at school could be an effective way to introduce a variety of activities to female high school learners. These authors state that since physical education at school does not require added time out of the school day, it is a perfect opportunity to encourage physical activity. To encourage physical activity among female high school learners physical education at schools should concentrate on lifetime activities such as jogging, swimming, biking and roller blading to establish a pattern of healthy behaviour.

A desire for parental involvement and control in sporting and physical activities was expressed by the learners. This is consistent with previous studies where parental involvement was cited as helpful cues for physical activity (Terguson and King, 2002; Stucky-Ropp and DiLorenzo, 1993; Anderssen and Wold, 1992). Terguson and King (2002) emphasize that parents need to become aware of the activity levels of their children and they should support their desire to be active.

They further emphasize that parental support would benefit the child in the form of enhanced social support and positive parental role modeling. Other researchers highlight that youth tend to view parents and peers as role models and sources of support and encouragement for physical activity (Johnson and Deshpande, 2000; Vilhjalmsson and Thorlindsson, 1998). Literature supports the fact that families and communities are primary venues for youth development (Morrissey and Werner-Wilson, 2005; Benson, Leffert, Scales and Blyth, 1999).

Appearance was cited as hindering participants from becoming physically active both at school and outside of school. The following quotations illustrate these sentiments around body image and self-consciousness.

> *...At primary school you were still a bit skinny, but now...everyone laughs at you...*
>
> *...And you are embarrassed about your body, how you look...*

These findings are consistent with other research that has identified heightened feelings of self-consciousness and embarrassment among adolescent girls (Whitty, 2004; King, Castro, Wilcox, Eyler, Sallis and Brownson, 2000).

6.6 HELP-SEEKING BEHAVIOURS

The majority of the female high school learners in the present study (35.1%) did not seek help for problems or for advice about health risk behaviours. This is consistent with other studies that suggest that adolescents typically do not seek help for problems (Ashley and Foshee, 2005; Boldero and Fallon, 1995).

Ciarrochi, Dean, Wilson and Rickwood (2002) are of the opinion that adolescents who are the least skilled at managing their emotions also have the lowest intention of seeking help from anybody and have the highest intention of refusing help from everyone. These researchers suggest that some of the barriers to help seeking include stigma attached to problems requiring help, concerns about privacy and poor knowledge of resources. These findings are concerning as literature has highlighted that seeking assistance from others has apparent instrumental benefits for the person in need. Ashley and Foshee (2005) describe the benefits as three categories of social support, namely, emotional support (concern, acceptance and understanding); information support (advice to aid problem-solving); and instrumental assistance (aid with tasks and contribution of material resources).

A large percentage (32.1%) of female high school learners in the study turned to their peers for advice about the various health risk behaviours. The literature on adolescent help seeking describes a general reluctance to use formal help seeking resources and preference to turn to peers first to discuss personal concerns (Lindsey and Kalafat, 1998; Boldero and Fallon, 1995; Saunders, Resnick, Hoberman and Blum, 1994; Adelman, Barker and Nelson, 1993). These researchers have suggested that adolescent peer norms and values may encourage help-seeking within the informal network of friends and family instead of formal help-seeking which are viewed as a "back up" to social networks. Another reason for turning to peers instead of formal service providers has been

suggested as fear of being blamed and concern that information will not be held in confidence (Ashley and Foshee, 2005).

A remarkable finding is that school personnel are among the last choices of adolescents for talking about personal issues. In the present study 4.7% of the female high school learners approached teachers for advice or help for any of the health risk behaviours. These findings parallel the concern of others (Lindsey and Kalafat, 1998; Adelman et al, 1993). These authors have sought to identify reasons for this finding and concluded that embarrassment; assuming that adults would not be helpful; and concerns about confidentiality are among the reasons. Further reasons such as particular characteristics of teachers, such as being judgmental, impersonal, and patronizing; and not taking time or having time to listen were also identified. Wilson and Deane (2001) also identified that a context of trust and confidentiality were very important for the participants in their study on adolescent opinions about reducing barriers to help-seeking. The students in their study explained that they were more likely to seek help if they trusted a potential help source to understand their problem and offer useful help.

It is clear from the discussion above that further investigation is needed to examine these black female high school learners decision-making about whether to seek help, and if they decide to seek help, whom they ask. If we are to fully comprehend why these female high school learners do or do not seek help for their problems, the perceived and actual effectiveness of these help sources

need to be examined. Furthermore we need to make these learners aware of the potential sources of effective help. Wilson and Deane's (2001) findings suggested that help-seeking barriers might be reduced by education about help-seeking. In their participants' views education needs to promote the importance and benefit of appropriate help-seeking.

6.7 SUMMARY

This study has added to the body of knowledge by producing current prevalence data for health risk behaviours among black female high school learners within one specific research locale and investigating the relationships between these health risk behaviours and key psychosocial correlates. This study further emphasizes the importance of addressing demographic variables critically if one is to avoid obscuring important differences among groups. The study deployed a mixed methods research approach wherein two complementary data sets (a quantitative and a qualitative data set respectively) were generated. This multi-sourced data allowed the research questions to be interrogated from complementary angles and this adoption of two 'lenses' to the data enriched the resulting analysis, and gave the researcher additional perspectives and insights that are beyond the scope of any single technique. The study thus generated an understanding of adolescent risk-taking, the meanings that adolescents at risk for engaging in health risk behaviours attach to those behaviours, and who or what influence them to engage in these health risk behaviours.

With the SCM as a theoretical and conceptual backdrop, it is highlighted that detailed attention must be paid to the role of the social environment as antecedent to the adoption of risky behaviours. The implication of these findings is that the social environment carries both the potential to underpin risk behaviour but also carries the potential to ameliorate the risk for such behaviours and to support the engagement in healthier behaviour patterns. From the perspective of the SCM, the major obstruction to behaviour change is socially supported beliefs, norms and meanings that inhibit adoption of safer behaviour. It is thus clear that unless education is directed to the entire at-risk audience and the larger communities in which the audience is embedded, success in changing individuals and effecting sustained behaviour change will be limited.

CHAPTER 7

CONCLUSION, RECOMMENDATIONS AND LIMITATIONS

7.1 CONCLUSION

The potential for risk taking during adolescence is immense, with continuing repercussions for the health and well being of the individual and for the society as a whole. The adolescent period can thus be considered a critical developmental period from a public health point of view. On evaluation of obtainable South African data on behaviours which place young people at risk, the cumulative research indicators are that young people use alcohol, tobacco and other drugs, engage in unprotected sex, have unhealthy dietary behaviours and are both perpetrators and victims of violence to a significant degree. The negative outcomes of some of these risk behaviors are particularly risky for adolescent girls whose risk behavior patterns carry noted physical health and reproductive health sequelae.

The present study aimed to better understand health risk behaviours among black female high school learners in the Strand by identifying the prevalence, patterns and knowledge of health-risk behaviors in the cohort. The cross-sectional data of health risk behaviours derived from this study illustrate that many high school learners are engaging in several health risk behaviours and that they are also exposed to a number of other health-impacting risks derivative of exposure to multiple forms of violence. In addition, other factors, motivational

and antecedent, such as environmental and personal factors influencing the involvement in health risk behaviours were identified. The qualitative data obtained through focus group discussions amplified the factors that predispose these learners to engage in these health risk behaviours and maintain this engagement. In accord with the Social Consensus Model of Romer and Hornik (1992) the important contribution of the social environment in supporting healthier behaviour was highlighted. It is argued that by better understanding the incidence of risk behavior, the motivations for engagement in risk behavior, and the consequences for development, more effective prevention efforts may be developed for these female high school learners.

The study thus clearly emphasizes the need to target the commencement of prevention at the early adolescence period because of the early age that learners initiate engaging in substance use and because of the higher prevalence of younger learners engaging in substance use. This suggests that prevention efforts should be aimed at primary school learners and that targeting programmes at scholars/learners in Grade 8 may be too late. The present study also draws attention to the need for preventive programs to not only concentrate on one risk behaviour but on multiple risk behaviours.

The South African Government has embarked on a number of international and local policy initiatives to promote the health and well being of young people since 1994. Among these are the signing of the World Summit Declaration and

endorsement of the Convention on the Rights of the Child (United Nations Children's Foundation, 2003), the Framework Convention for Tobacco Control (WHO, 2003) and the Human Immunodeficiency Virus (HIV), Acquired Immune Deficiency Syndrome (AIDS) and Sexually Transmitted Infection (STI) Strategic Plan for South Africa 2000-2005 (Department of Health, 2000). The Department of Education launched a five-year plan, Tirisano, in 1999 to address the educational, health and social needs of learners (Department of Education, 2002). The previous minister of Education, Prof Kader Asmal stated in his foreword of the 1st South African National Youth Risk Behaviour Survey (Reddy et al, 2003) that it was his belief that the Tirisano initiative was meant to empower children and that this survey should be seen as the result of this initiative. Notwithstanding these policy initiations, the results of the present study challenge the minister's statement. We can thus debate whether these initiatives, including the Tirisano initiative, embarked on by the South African Government can be considered successful.

7.2 RECOMMENDATIONS

7.2.1 SUBSTANCE ABUSE

Multiple strategies are needed to deal with the health and economic consequences of substance abuse among black female high school learners. The lack of legal regulation of the retail of cigarettes in communities should be addressed by government. Government should also strictly enforce regulations of tobacco distribution and availability to minors. The lack of legal regulation of the

retail of alcohol at informal establishments such as "shebeens" should be also be addressed by government. This should include alcohol distribution and availability to minors. The supply of illegal drugs in the learners' environment including their schools should be investigated and curbed. Collaboration should exist between various government departments and community organizations to achieve this. These departments should include the Department of Safety and Security; Police; Education and Defence.

7.2.2 VIOLENCE

The school environment should be made safe to support learning. Educators should be assisted by the Department of Safety and Security and Police to discourage learners from bringing weapons to school, and to discourage outsiders from gaining entry into school premises. Programmes focusing on conflict resolution should be put in place at all schools. Black female high school learners should be provided with information and skills at an early age to assist them in the abhorrence of dating violence and coercive sexual behaviour.

7.2.3 SEXUAL BEHAVIOUR

Preventive programmes need to be intensified at school and in communities. Learners should be provided with information and skills at an earlier age, at primary school level, to assist them in decreasing sexual risk behaviour. Negotiating skills of black female learners should be improved.

7.2.4 PHYSICAL ACTIVITY

Collaborations of community organizations with sports and recreation agencies could produce substantial benefits. Community health organizations could provide sports and recreation agencies with education, training and resources on physical activity and health. Community health organizations in turn could learn more about the opportunities offered by sports and recreation agencies. Thus all departments of government should collaborate to reduce physical inactivity among high school learners. Schools specifically can assist through physical education programmes that prepare learners to adopt active lifestyles. Promotion of lifelong physical activity in physical education classes will help to establish an early pattern of exercising behaviour that can continue into the adult years.

7.3 LIMITATIONS

The results of the present study should be interpreted in the light of the following limitations.

1. Data of the first phase of the study was collected by means of self-administered questionnaires and were thus based on self-reports. Self-report measures are open to bias and misreporting, particularly where the behaviour is seen to be undesirable. However there is growing evidence that such measures of adolescent risk behaviours are generally reliable and valid (Brener, Collins, Kann, Warren and Williams, 1995). Furthermore the researcher went to great lengths to ensure confidentiality and anonomity.

2. Data in the first phase of the study were analysed cross-sectionally, thereby limiting the ability to make causal inferences. An individual currently engaging in a form of risk-taking behaviour will not necessarily continue to do so. Therefore caution should be exercised in interpreting the results of a cross-sectional study in the absence of longitudinal data.

3. The sample was relatively homogenous in terms of age and schooling, i.e. black female high school learners aged between 13 and 18 years. The sample did not include those who had dropped out of school. There is evidence that the prevalence of health risk behaviours are higher for those who have dropped out of school (Flisher and Chalton, 1995). Because of this, generalisaion of the findings to other adolescent populations is thus limited.

4. Direct and parallel comparison of the results of this study with those conducted in other areas of the country or other parts of the world should be done with caution due to environmental, sampling and methodological variations between the different studies. Most studies on risk behaviours are epidemiological and multi-site studies. The present study investigated risk behaviours within one circumscribed community setting, namely the Strand. Therefore caution must be exercised in extrapolating from these findings to other dissimilar community contexts.

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Appendix 1

Navrae
Enquiries
IMibuzo
Frances Wessels

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ISebe leMfundo leNtshona Koloni

Ms J Phillips
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RESEARCH PROPOSAL: HEALTH-RISK BEHAVIOURS AMONG FEMALE HIGH SCHOL LEARNERS IN THE STRAND

Your application to conduct the above-mentioned research in schools in the Western Cape has been approved subject to the following conditions:

1. Principals, teachers and learners are under no obligation to assist you in your investigation.
2. Principals, teachers, learners and schools should not be identifiable in any way from the results of the investigation.
3. You make all the arrangements concerning your investigation.
4. All research should be conducted after school as educators' programmes are not to be interrupted.
5. The investigation is to be conducted during August 2001 and September 2001.
6. Should you wish to extend the period of your survey at the school, please contact F Wessels at the contact numbers above
7. No research will be allowed during the fourth school term.
8. A photocopy of this letter is submitted to the principal of the school where the intended research is to be conducted.
9. Your research will be limited to the following schools: Strand high; Strand Secondary; Rusthof Secondary and Khanyolwethu Secondary.
10. A brief summary of the content, findings and recommendations is provided to the Director: Research.
11. The Department receives a copy of the completed report/dissertation/thesis addressed to:

    The Director: Research
    Western Cape Education Department
    Private Bag 9114
    CAPE TOWN
    8000

We wish you success in your research.
Kind regards.

F Wessels

pp **ACTING HEAD: EDUCATION**
DATE: 23/08/2001

Appendix 2

Date:

The Principal and Parent-Teacher Association
School

Dear Sir/Madam

Re: Health risk behaviours among female high school learners in Strand research project

A research project concerning the health risk behaviours among female high school learners in the Strand is currently being undertaken. The principal researcher is Ms Julie Phillips of the University of the Western Cape. Permission from the Western Cape Education Department has already been obtained.

The aims of the project are to determine the prevalence and patterns of health risk behaviours of female high school learners. These behaviours include smoking, alcohol use, drug use, sexual risk behaviours, physical inactivity and behaviours contributing to violence. Administration of questionnaires and focus group discussion will be done at the school by the researcher mentioned above and a trained research assistant.

I hereby wish to request permission from your school for participation in the above mentioned project. The results will be made available to you as soon as they have been analysed. The co-operation from both teachers and the learners will be appreciated. Once again, thank you and I hope that I will receive a positive response from your school.

Yours sincerely

Julie Phillips

Appendix 3

Date:

Dear Parent/Guardian

Re: Health risk behaviours among female high school learners in Strand research project

A research project concerning the health risk behaviours among female high school learners in the Strand is currently being undertaken. The principal researcher is Ms Julie Phillips of the University of the Western Cape. Permission from the Western Cape Education Department has already been obtained.

The aims of the project are to determine the prevalence and patterns of health risk behaviours of female high school learners. These behaviours include smoking, alcohol use, drug use, sexual risk behaviours, physical inactivity and behaviours contributing to violence. Administration of questionnaires and focus group discussion will be done at the school by the researcher mentioned above and a trained research assistant.

Your child is expected to complete a questionnaire and participate in a group discussion. Strict confidentiality will be observed regarding all information from your child. Your child will also be treated with the utmost respect at all time. You as a parent have the voluntary right to consent or withdraw you child from the study at any time. Please complete the section below if you give your permission and return it to the school.

I ---------- (parent/guardian) hereby give permission for

---------- (child's name) to be included in the research project.

---------- ----------

Signature Date

Yours sincerely

Julie Phillips

Appendix 4

Date:

Dear Learner

Re: Health risk behaviours among female high school learners in Strand research project

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Your are expected to complete a questionnaire and participate in a group discussion. Strict confidentiality will be observed regarding all information that you give. You will also be treated with the utmost respect at all time. You have the voluntary right to consent or withdraw from the study at any time. Please complete the section below if you give your permission and return it to the school.

I ---------- hereby agree to be included in the research project.

---------- ----------

Signature Date

Yours sincerely

Julie Phillips

HEALTH-RISK BEHAVIOUR SURVEY

- This survey is about health risk behaviours.
- It has been developed so that you can tell us what you do that may affect your health.
- The information you give will be used to develop better health education for young people like yourself.
- **DO NOT WIRTE YOUR NAME** on this survey.
- The answers you give will be kept **confidential.**
- No names will ever be reported.
- Answer the questions based on what you really do.

Thank you very much for your co-operation

QUESTION 1

How old are you today? Please tick.

☐ 13 years ☐ 14 years ☐ 15 years

☐ 16 years ☐ 17 years ☐ 18 years

☐ older than 18 years

QUESTION 2

What grade are in school?

☐ 8 ☐ 9 ☐ 10

☐ 11 ☐ 12

QUESTION 3

How do you describe yourself?

☐ African/Black ☐ Coloured ☐ White

☐ Indian/Asian ☐ Other (specify).....

QUESTION 4

Are you a member of any religious organization (e.g. church, mosque)

☐ Yes ☐ No

QUESTION 5

Which one person is in charge of/ or is the head of your household?

☐ Father ☐ Mother ☐ Other (specify).....

QUESTION 6

What is the number of persons living in your household? .....

QUESTION 7

What type of work does the head of household do?

☐ Unemployed ☐ Employed (job description) .....

QUESTION 8

What is the highest level of education completed by the head of your household?

☐ no schooling ☐ primary school ☐ secondary school

☐ post secondary

QUESTION 9

Do you belong to any youth organization?

☐ Yes ☐ No

THE NEXT SECTION ASKS ABOUT TOBACCO USE

QUESTION 10

Have you ever smoked?

☐ Yes ☐ No

QUESTION 11

How old were you when you smoked a cigarette for the first time?

☐ Never smoked a cigarette ☐ 8 years old or younger

☐ 9 or 10 years old ☐ 11 or 12 years old

☐ 13 or 14 years old ☐ 15 or 16 years old

☐ 17 years old or older

QUESTION 12

During the past 30 days, on how many days did you smoke cigarettes?

☐ Never smoked ☐ 0 days ☐ 1 or 2 days

☐ 3 to 5 days ☐ 6 to 9 days ☐ 10 to 19 days

☐ 20 to 29 days ☐ all 30 days

QUESTION 13

What is the main effect of smoking on any body's health?

☐ No effect ☐ Diseases of the lungs ☐ Back pain

☐ Stomach ache ☐ Others (specify).....

QUESTION 14

Where did you seek help or advice about smoking?

☐ No one ☐ Friend ☐ Parent or guardian

☐ Teacher ☐ Doctor or nurse

THE NEXT SECTION ASKS ABOUT BEHAVIOURS THAT CONTRIBUTE TO VIOLENCE

QUESTION 15

During the past 30 days, on how many days did you not go to school because you felt you would be unsafe at school or on your way to or from school?

☐ 0 days ☐ 1 day ☐ 2 or 3 days

☐ 4 or 5 days ☐ 6 or more days

QUESTION 16

As a high school student, how many times has someone threatened you with a weapon such as a gun, knife, or stick?

☐ 0 times ☐ 1 time ☐ 2 or 3 times

☐ 4 or 5 times ☐ 6 or 7 times ☐ 8 or more times

QUESTION 17

As a high school student, how many times has someone injured you with a weapon such as a gun, knife, or stick?

☐ 0 times ☐ 1 time ☐ 2 or 3 times

☐ 4 or 5 times ☐ 6 or 7 times ☐ 8 or more times

QUESTION 18

As a high school student, how many times were you in a physical fight?

☐ 0 times ☐ 1 time ☐ 2 or 3 times

☐ 4 or 5 times ☐ 6 or 7 times ☐ 8 or more times

QUESTION 19

As a high school student, how many times were you in a physical fight in which you were injured?

☐ 0 times ☐ 1 time ☐ 2 or 3 times

☐ 4 or 5 times ☐ 6 or 7 times ☐ 8 or more times

QUESTION 20

Did your boyfriend ever hit, slap or physically hurt you on purpose?

☐ No boyfriend ☐ Yes ☐ No

QUESTION 21

Have you ever been physically forced to have sexual intercourse when you did not want to?

☐ Yes ☐ No

QUESTION 22

What is the main effect of a violent behaviour on any body's health?

☐ No effect ☐ Depression ☐ Back pain

☐ Stomach ache ☐ Others (specify) .....

QUESTION 23

Who did you inform about violent acts, if any occurred?

☐ never involved ☐ Friend ☐ parent/ guardian

☐ teacher ☐ doctor/ nurse ☐ no one

THE NEXT SECTION ASKS ABOUT ALCOHOL USE

QUESTION 24

Have you ever had a drink of alcohol?

☐ Yes ☐ No

QUESTION 25

How old were you when you had your first drink of alcohol?

☐ Never had a drink of alcohol ☐ 8 years old or younger

☐ 9 or 10 years old ☐ 11 or 12 years old

☐ 13 or 14 years old ☐ 15 or 16 years old

☐ 17 years old or older

QUESTION 26

During the past 30 days, on how many days did you have at least one drink of alcohol?

☐ Never had a drink of alcohol ☐ 4 or more times a week ☐ 2-3 times a week

☐ once a week ☐ once a month ☐ twice a month

QUESTION 27

What is the main effect of excessive alcohol use on any body's health?

☐ No effect ☐ depression ☐ back pain

☐ liver diseases ☐ others (specify) .....

QUESTION 28

Where did you seek help or advice about alcohol use?

☐ never used alcohol ☐ Friend ☐ parent/ guardian

☐ teacher ☐ doctor/ nurse ☐ no one

THE NEXT SECTION ASK ABOUT DRUG USE (E.G. DAGGA, COCAINE, ETC)

QUESTION 29

Have you ever used drugs?

☐ Yes ☐ No

QUESTION 30

How old were you when you used drugs for the first time?

☐ Never tried drugs ☐ 8 years old or younger

☐ 9 or 10 years old ☐ 11 or 12 years old

☐ 13 or 14 years old ☐ 15 or 16 years old

☐ 17 years old or older

QUESTION 31

During the past 30 days, how many times did you use drugs?

☐ Never used drugs ☐ 4 or more times a week ☐ 2-3 times a week

☐ once a week ☐ once a month ☐ twice a month

QUESTION 32

What is the main effect of drugs on any body's health?

☐ No effect ☐ depression ☐ back pain

☐ liver diseases ☐ others (specify) .....

QUESTION 33

Where did you seek help to overcome drug use or advice about drugs?

☐ never used drugs ☐ Friend ☐ parent/ guardian

☐ teacher ☐ doctor/ nurse ☐ no one

THE NEXT SECTION ASKS ABOUT SEXUAL BEHAVIOUR

QUESTION 34

Have you ever had sexual intercourse?

☐ Yes ☐ No

QUESTION 35

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

☐ I have never had sexual intercourse ☐ 11 years old or younger ☐ 12 years old

☐ 13 years old ☐ 14 years old ☐ 15years old

☐ 16 years old ☐ 17 years old or older

QUESTION 36

As a high school student, with how many people have you had sexual intercourse?

☐ I have never had sexual intercourse ☐ 1 person ☐ 2 people

☐ 3 people ☐ 4 people ☐ 5 people

☐ 6 or more people

QUESTION 37

The **last time** you had sexual intercourse, did you or your partner use a condom?

☐ I have never had sexual intercourse ☐ Yes ☐ No

QUESTION 38

The **last time** you had sexual intercourse, what one method did you or your partner use to **prevent pregnancy**?

☐ I have never had sexual intercourse ☐ No method used to prevent pregnancy

☐ Birth control pill ☐ condoms

☐ Depo-Provera (injection) ☐ Withdrawal

☐ not sure

QUESTION 39

How many times have you been pregnant?

☐ I have never had sexual intercourse ☐ Never

☐ 1 time ☐ 2 or more times ☐ not sure

QUESTION 40

Have you ever been taught about AIDS or HIV infection at school?

☐ Yes ☐ No ☐ not sure

QUESTION 41

What is the main effect of unprotected sex on any body's health?

☐ No effect ☐ Depression ☐ HIV/AIDS

☐ Liver diseases ☐ Pregnancy ☐ Others (specify).....

QUESTION 42

Where did you seek help or advice about sexual behaviour?

☐ never had sex ☐ Friend ☐ parent/ guardian

☐ teacher ☐ doctor/ nurse ☐ no one

THE NEXT SECTION ASKS ABOUT PARTICIPATION IN PHYSICAL ACTIVITY

QUESTION 43

On how many of the past 7 days did you participate in physical activity (such as walking, cycling, dancing or swimming) for at least **20 minutes**?

☐ Never ☐ 1 day ☐ 2 days

☐ 3 days ☐ 4 days ☐ 5 days

☐ 6 days ☐ 7 days

QUESTION 44

During the past 7 days, what prevented you from taking part in physical activity?

☐ Lack of time ☐ Lack of money ☐ Lack of facilities

☐ Other (specify).....

QUESTION 45

On an average school day, how many hours do you watch television?

☐ Do not watch TV on a school day ☐ Less than 1 hour per day

☐ 2 hours per day ☐ 3 hours per day

☐ 4 hours per day ☐ 5 or more hours per day

QUESTION 46

On an average school day, how many hours to you spend playing computer/ video games?

☐ Do not play computer / video games ☐ Less than 1 hour per day

☐ 2 hours per day ☐ 3 hours per day

☐ 4 hours per day ☐ 5 or more hours per day

QUESTION 47

What is the main effect of being physically inactive on any body's health?

☐ No effect ☐ Overweight ☐ Back ache

☐ Heart diseases ☐ Others (specify).....

QUESTION 48

Where did you seek help about being physically inactive?

☐ Not physically inactive ☐ Friend ☐ parent/ guardian

☐ teacher ☐ doctor/ nurse ☐ no one

THANK YOU VERY MUCH