

**THE RELATIONSHIP BETWEEN PERCEIVED PARENTAL MONITORING AND
INVOLVEMENT IN HEALTH RELATED RISK-TAKING BEHAVIOURS IN
ADOLESCENTS IN PIETERMARITZBURG, SOUTH AFRICA**

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"Unless specifically indicated to the contrary, this thesis is the result of my own work"

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Abstract

This study sought to investigate the relationship between perceived parental monitoring and adolescents' engagement in risky behaviour, in Pietermaritzburg, South Africa.

A total of 705 adolescents from both township and suburban schools in and around the city of Pietermaritzburg were involved in this study. Data collection took place during April and May of 2002. Among the questions the study aimed to answer was whether there would be gender and school grade or age differences with regards to perceived parental monitoring, what the relationship would be between age, gender, perceived parental monitoring, level of religiosity, family structure, family conflict and attitudes towards condom use and, lastly, what the main predictors of engagement in risky behaviour would be.

A survey which measured amongst other things, perceived parental monitoring, attitudes towards condom use, level of religiosity and the type of risky behaviours the adolescent might be involved in, was administered to the participants. Results showed perceived parental monitoring to be inversely correlated with involvement in risky behaviours and that, girls and the younger youth, were more monitored than boys and the older youth. Gender, level of religiosity, attitudes towards condom use, and age were identified by regression analysis as the four main predictors of engagement in risky behaviour. Longitudinal studies are needed to determine the long-term relationship between perceived parental monitoring and engagement in risky behaviour.

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CHAPTER 1: INTRODUCTION AND BACKGROUND

This study sought to investigate the relationship between perceived parental monitoring and engagement in health-related risk taking behaviours of adolescents. Many researchers have attempted to define the term “parental monitoring” and most agree on the definition; “the parents’ knowledge of their child’s whereabouts, activities, and friends”, (DiClemente, Wingood, Crosby, Sionean, Cobb, Harrington, 2001; Li, Feigelman & Stanton, 2000; Crouter, MacDermid, McHale & Perry-Jenkins, 1990). In their longitudinal study on the impact of perceived parental monitoring on adolescent risk behaviour, Li, et al., (2000) defined parental monitoring as “monitoring of youth's social behaviour, which consists of communication about, and knowledge of where and with whom the child is” (p.43).

Research conducted from the early nineties up until quite recently in other countries has demonstrated the inverse relationship between parental monitoring or perceived parental monitoring and engagement in risky behaviours (Crouter, MacDermid, McHale & Perry-Jenkins, 1990; Forehand, Miller, Dutra & Chance, 1997; Li, et al., 2000; Rodgers, 1999). According to Li and colleagues, low levels of perceived parental monitoring are associated with participation in several health risk behaviours including sexual behaviour and drug / substance use, amongst other behaviours. What the results of the above studies imply is that if parental monitoring were increased, participation in risky behaviours would be decreased.

Risky behavior is a term that is self-explanatory as what it means is, “behavior that puts one at risk of something”. It follows therefore that “health-related risky behavior” means behavior that puts one’s health at risk. DiClemente, Hansen and Ponton (1996) conceptualised risky behavior as a number of potentially health-damaging behaviours, including substance use and precocious or risky sexual behavior. The term “risky behaviours” shall therefore be used here to denote those

activities that adolescents engage in, which could lead to the detriment of their own health or school performance, such as drinking alcohol, using drugs and having unprotected sex.

Of major concern is the fact that research has demonstrated that once risky behaviours become established during adolescence, they often display a developmental trajectory right into adulthood, meaning that they often increase with age (DiClemente, et al., 1996). Secondly, previous research has demonstrated that risky behaviours tend to co-vary (Moore, Miller, Sugland, Morrison, Gleib & Blumenthal, 2002; Pergamit, Huang & Lane, 2001), meaning that often adolescents who engage in one risky behavior will also tend to engage in another / others. Moore et al. (2001) found that adolescents who began having sex at earlier ages were also more likely to have more than one sex partner and also to be engaged in other risky behaviours such as substance use before sex. The researcher will return to this concept of co-variation of risky behaviours and address this in detail under the literature review chapter.

The term “adolescent” in this study shall be used to denote everyone who is in the stage between puberty and what Ausubel (1954, cited in McCandless, 1970) calls “executive independence”. According to this author “executive independence” is a period when one does things for himself, that is, makes his own decisions and has achieved complete personal autonomy. According to DiClemente, Hansen & Ponton (1996, p.1) adolescence is a “developmental period characterised by rapid physical, psychological, social / cultural and cognitive changes”. The Oxford dictionary defines “adolescence” as a transitional period between adulthood and childhood. Kelly, Parker and Oyosi (2001) use the term “young people” to denote those under the age of 25, taking into consideration the fact that “full financial and emotional independence is often not gained until at least the middle to late twenties in South Africa” (p.4). The current study will limit its focus to the subgroup of this population that is still at school and the ages of whom may range from thirteen to nineteen years of age, also known as the teenage years.

Even though there is a proliferation of studies in the United Kingdom and in the USA on the relationship between parental monitoring or perceived parental monitoring and engagement in risky behaviours, South African literature is lacking in this regard. This study therefore aims to address this gap in the literature by enquiring into the nature of this relationship and also by studying the effects of each of the variables such as gender, age and family structure, on the nature of this relationship. Following on from similar research in other countries this study therefore primarily aims to test the hypothesis “There is an inverse relationship between perceived parental monitoring and engagement in health related risk-taking behaviours among the adolescents” on a different culture in South Africa. The objectives of the study are therefore to:

- Identify factors that contribute to, or lead adolescents to engage in risky behaviours.
- Assess the relationship between gender, and perceived parental monitoring.
- Assess the relationship between age or grade level at school and perceived parental monitoring.
- Examine the relationship between perceived parental monitoring and engagement in risky behaviours.
- Examine the relationship between level of religiosity, age, gender, attitudes towards condom use and engagement in risky behaviours.

CHAPTER 2: LITERATURE REVIEW

2.1 Parental monitoring

Most researchers define parental monitoring as the parents' knowledge of their child's whereabouts, activities, and friends (DiClemente et al., 2001; Li, Feigelman & Stanton, 2000; Crouter, MacDermid, McHale & Perry-Jenkins, 1990). Li, et al. (2000) further define parental monitoring as "monitoring of youth's social behaviour, which consists of communication about, and knowledge of where and with whom the child is" (p.43). In brief and for the purposes of this study, parental monitoring will be defined as "knowledge of, and control of the child's whereabouts including how and with whom, they spend their time". This definition is closely related to that used by Jacobson and Crockett (2000) who defined parental monitoring as the parent's knowledge of their child's whereabouts, activities and friends. The current research will not be studying direct parental monitoring since the parents themselves will not be part of the study, but will rather be studying perceived parental monitoring which will be inferred from the answers that adolescents will be giving in relation to how they think their parents monitor their behaviour.

Parental monitoring, or the perceived aspect of it, has received considerable attention in many overseas countries where researchers have tested the relationship between parental monitoring and the youth's involvement in risky behaviours. South African literature is highly deficient in studies around the issue of perceived parental monitoring. Studies from other countries conducted around this issue of perceived parental monitoring have repeatedly demonstrated that less parental monitoring perceived by adolescents is associated with greater participation in risk-taking behaviours, (DiClemente et. al., 2001; Li, Stanton & Feigelman, 2000; Loeber & Dishion, 1984 in Barber, 1992; Rodgers, 1999). Possible explanations of this association, according to Rodgers

(1999), are that it is possible that parental monitoring (knowing where and with whom your teenager is and what s/he is doing) conveys to the teenager that parents care and are concerned.

In this way perceived parental monitoring may be able to reduce involvement in risk-taking → *copying strategies*
behaviour. According to the same author, perceived parental monitoring may also prevent high-risk sexual behaviours by regulating the number of suitors and potential sexual partners, as well as the number of situations that could lead to or facilitate sexual intercourse. Parental monitoring was listed by Jessor (1993) in his index of protective and risk factors as one of the protective factors that moderate risk influence on problem behaviour during adolescence. Jessor defined risk factors as those that make the potential for drug use more likely whereas protective factors were defined as those associated with reduced potential for drug abuse. *challenged* *N* *copying strategies*

Gender and the age of the adolescent have also been found to determine the level of monitoring received by adolescents (Li, et al., 2000; Flannery, Vazsonyi, Torquati, & Fridrich, 1994; Kerr and Stattin, 2000). Li and colleagues noted from the results of their study that girls perceived themselves to be more monitored than boys, and also that perceived monitoring tended to decrease with advancing age of the youth. Kerr and Stattin (2000) noted similar results from their study where girls perceived themselves to be more monitored than boys. Results from these studies have consistently shown that boys usually perceive themselves to be less monitored than girls. These gender differences can be explained in terms of the type of socialisation received at home and in the community by the two genders.

According to Peters (1994) there is a tendency in (American) culture to be more protective of females and more permissive of males. This can also be said to be true of other cultures including African culture. As a result of this boys are given autonomy earlier, which allows them to start experimenting in different risk-taking behaviours, sooner than girls. Also according to Pettit, Laird, Kenneth, Dodge, Bates & Criss (2001) delinquent behaviour is more “normative” for boys

than it is for girls, which makes parents grant boys more leeway and work less hard in supervising and monitoring them in order to alter their behaviour. If the relationship between perceived parental monitoring and engagement in risky behaviours is indeed a negative one this could explain why boys engage more in risky behaviours when compared to girls in general. We would also expect the results from the current study to show such differences in age, as well as between the two genders.

Researchers have also identified family dimensions such as the parent-child relationship, parenting styles, as well as the adolescent personality, as some of the factors that also have an effect on the development of problem behaviours. Rodgers (1999) in her study among junior and high school students in America, identified the four parent-child processes that contribute to the development of risk-taking behaviour as: parental support, parental communication, behavioural control and psychological control. Rodgers later refers to behavioural control as parental monitoring.

According to Rodgers, parental support plays a role in decreasing adolescent females' sexual risk-taking behaviours. According to Fox (1980, cited in Rodgers, 1999), an open and supportive mother-daughter relationship has been found to delay coitus, increase the likelihood that an adolescent female will not experience multiple pregnancies, and increase the likelihood that daughters will discuss sexual matters with their mothers. Confirming findings from other studies have revealed that adolescents who viewed their parents as less supportive were more sexually active and took more risks (had multiple partners and failed to use contraception), than their lower-risk peers (who were in monogamous relationships and used contraception) (Luster & Small, 1994).

Inconsistent findings have resulted from studies on the effect of parent-child communication on adolescent sexual behaviour. According to Eaton, Flisher, and Aaro (2003) South African adolescents have reported poor communication with their parents about sexual matters. The same authors posit that when there is poor communication in the family about sex, both supervision and lack of supervision from parents may contribute to unsafe sexual behaviour. In other words poor parent-child communication undermines parental supervision (monitoring). The recent report by LoveLife (2002) from the latest National Youth Survey revealed that young people in South Africa want to hear about sex from their parents, and that they say that maintaining an open and honest conversation is more important than getting them to see things the parent's way.

As far as parental behaviour control is concerned, research has shown that females who are less closely monitored by their parents are significantly more likely to have multiple sexual partners and to use contraception inconsistently (Luster & Small, 1994). Rodgers' (1999) study also found that sexually active adolescent males and females whose parents monitor them are more likely to decrease their sexual risks than their peers whose parents do not monitor them. As far as psychological control is concerned, Socialisation theory suggests that allowing autonomy can promote responsible and moral decision-making, whereas, psychological control fails to promote maturity or responsibility for one's actions (Rodgers, 1999). According to the same author, adolescents whose parents use excessive psychological control may be less likely to demonstrate internalised moral reasoning, and as a consequence may fail to consider the consequences of their sexual choices and behaviours for themselves and for their partners.

Behaviour and psychological control were defined by Steinberg (1990, cited in Barber, 1992) as "monitoring adolescent behaviour whilst allowing teenagers independence and autonomy" (p.10). Steinberg also noted from the vast literature that he reviewed on child development that

“adolescents appear to be adversely affected by psychological control - the absence of psychological autonomy - but positively influenced by behavioural control” (p.71). Steinberg further argued that this absence of behavioural control “deprives the adolescent of adequate guidance and supervision and places him / her at risk for developmental difficulties”, (p. 71). Because adolescents are increasingly associating with their peers during this phase of development, it is of utmost importance for parents to exercise some form of supervision, which should limit exposure to risks and temptations.

A recent survey in America revealed that most parents do not know that their children are having sex (Papillo, 2002, cited in Health24, 2002). This may be an indication that parents are not exercising certain forms of parental monitoring. The same author further asserts that parents need to be more involved in their children’s lives and be more aware of what is actually taking place in their own households. This was said in light of the fact that Papillo’s study revealed that adolescents were having sex in their own homes, or at a friend’s house and that this was taking place without the parents’ knowledge. One would argue therefore that if parents were monitoring the activities of their adolescents closely, such acts would not be occurring without their knowledge or might have been occurring but to a lesser extent.

According to the literature parents can learn monitoring strategies, and they can learn to do this without being intrusive, so as to ensure a respectable degree of adolescent autonomy whilst ensuring their adolescent’s optimum development. This, the parents would be doing in the process of helping teenagers to navigate this turbulent phase of their development.

The next chapter looks at the literature that addresses the different behaviours that are going to be the focus of this study, and how these affect adolescent development.

2.2 Adolescent sexual behaviour

Sexual activity is one of the risky behaviours adolescents engage in and will therefore be amongst those that are the focus of this study. The term 'risky behaviours' is used here to denote those activities that adolescents engage in which could lead to the detriment of their own health or school performance, such as drinking alcohol, using drugs and having unprotected sex. With an estimated 4,5 million South Africans living with HIV / Aids and 15.6% of those falling between the ages of 15 and 49 (Shisana & Simbayi, 2002), we are compelled to study the factors through which adolescents come to engage in risky behaviours. A recent report released by the Medical Research Council estimated that around 40% of deaths in this age group in the year 2000 were due to HIV / Aids (Dorrington, Bourne, Bradshaw, Laubscher & Timaeus, 2001).

Many studies abroad (DiClemente et al., 2001; Jacobson, 2000; Pergamit et al., 2001) to name a few, and a few in South Africa (Eaton, Flisher & Aaro, 2003; Visser & Moleko, 2002), have explored the reasons why adolescents engage in unsafe sexual practices, as well as the consequences of such behaviour. Amongst the reasons identified by Eaton and colleagues are that many of our South African youth have low perception of risk, meaning that they underestimate their risk for contracting HIV. The LoveLife study (2001) identified negative attitudes towards condom use, such as the belief that sex without a condom is more enjoyable, as reasons adolescents engage in unsafe sex. Among the consequences of engaging in sexual activities are teenage pregnancies (Pergamit et al., 2001), which often lead to abortions, adoptions and / or single-parent births, as well as the acquiring of sexually transmitted diseases, such as HIV / Aids (DiClemente et al., 2001). The impact on the community is also negative since early parenthood places a huge burden on the society's resources.

In America alone, birth rates among teenagers are nearly one quarter higher than they were in the late 1980s (Moore, et al., 2002). Of concern is the fact that child bearing among adolescents is increasing at an alarming rate and has not levelled off or decreased in the last two decades. According to the statistics released by the Department of Health in 1999, (Harrison, Xaba, Kunene & Ntuli, 2001) in South Africa, over a third of women had had their first pregnancy by age 19. Teenage pregnancy is not the only cause of concern, but also of concern is the fact that pregnancy is usually a result of not having used, or having been consistent with, contraception. If adolescents are not using, or are inconsistent with, contraception, they are putting themselves at risk of infectious diseases and moreover exposing themselves to the human immunodeficiency virus (HIV) (Pergamit et al., 2001). In their survey of primary school learners, Visser and Moleko found that 24 % of their sample indicated that they had already started having sex. Of those who were sexually active, only 40 % said they used condoms to protect themselves from HIV and 35 % indicated using birth control to prevent pregnancies (Visser & Moleko, 2002).

According to the LoveLife (2001) in South Africa five percent of 12 – 13 year olds across all race groups are sexually experienced and this percentage increases dramatically to 54% in the 16 – 17 year old age group. Recently released statistics by the Nelson Mandela/HSRC study (Shisana & Simbayi, 2002) listed 1.5% in the 12 – 14 years age group, and 53.2% in the 15 – 24 years age group in the formal urban areas, as sexually experienced. Eaton, Flisher and Aaro (2003) in their review of literature on unsafe sexual behaviour among the South African youth found similar findings indicating that at least 50% of young people in South Africa are sexually active by age 16, and that out of that figure, under 20% reported using condoms at every sexual encounter. The LoveLife survey (2001) also found that 35% of the sexually experienced boys seemed to think that it is 'cool' to be having many sexual partners.

Results from the same study also revealed that boys and the younger youth (12 – 13 year olds) are less likely to say they use contraception. The fact that boys under-report using contraception is a cause of concern because boys normally have more control in relationships, than girls do (Eaton, et al., 2003; LoveLife, 2001), which means that they have the power to pressure girls into having sex, unless girls become more assertive when it comes to contraception, especially condom use. To illustrate the above point, in the National Youth Survey 39% of the sexually experienced girls said that they had been forced to have sex when they did not want to, compared to only 7% of the boys (LoveLife, 2001). Also from the same study 32% of the boys said it was the girl's responsibility to take care of contraception.

Racial differences in contraception use were also identified in the National Youth Survey, with the African youth identified as less likely than their white counterparts to use contraception. Although the current study cannot make such comparisons since it is limited to a black African sample only, it should however be able to give insight as to the magnitude of the problem amongst the African youth, and perhaps help us assess the problem with regards to perceived parental monitoring.

Multiple barriers to safe sex practices have been identified in the studies conducted in South Africa. These include but are not limited to: low perception of personal risk (thinking that "it will not happen to me"), (Blecher, 1995 cited in Karnell, 2001; Eaton, et al., 2003) and attitudes about male sexuality, such as believing that a man cannot control his physical desires, which tends to sanction infidelity in men (Wood & Jewkes, in Karnell, 2001). Also among other reasons for lack of condom use is the fact that adolescents say they are 'embarrassed' to purchase condoms (LoveLife, 2001) as well as lack of access to free

condoms supplied at local health clinics (Abdool Karim, Abdool Karim, Preston-Whyte & Sankar, 1992a, cited in Eaton et al., 2003).

Psychological factors in the individual adolescent have been demonstrated to play a role as barriers to safe sexual practices (Eaton et al., 2003). The Eaton et al. study conducted here in South Africa concluded that a syndrome of low self-esteem, perceived external locus of control and low self-efficacy in adolescents, might lead to risk taking behaviours. Earlier research also conducted in this country by Perkel, Strebel and Joubert (1991) also supports these findings. In their study it was demonstrated that those with a low self-esteem were embarrassed to use condoms and were also more likely to start having sex sooner.

The Eaton and colleagues study also points out the desire of traditionally minded young black men in South Africa to prove their virility by fathering children, and the pressure felt by girls to prove their love by conceiving them, as another barrier to safe sex practices (Eaton et al, 2003).

Early initiation of sexual activity in the youth is another cause of concern in South Africa. Eighteen percent of the youth report their age of sex initiation to be at the age of 12 or younger, and 24% of the youth report having had sex by age 15 (Loveife, 2001). Also, according to UNAIDS (2000), in South Africa 17% of the girls aged 15- 19 are mothers or are already pregnant with their first child. Research in America has shown that the younger the age of sex initiation, the less likely the use of contraception, and the more likely the number of sexual partners (Moore, et al., 2002). The same study also demonstrated that adolescents who begin having sex early tend to engage in other risky behaviours such as

alcohol and drug use. The same findings were obtained by the Kowaleski-Jones & Mott (1998) study.

In America, the type of family the adolescent comes from, such as living in a home with a single parent, has also been found to be positively correlated to the early onset of sexual activity, (Moore et al., 2002; Whitaker, Miller & Clark, 2000). The factors that were identified by the Moore and colleagues' study to play a role in this are: lower incomes, less monitoring since there is only one parent, disadvantaged neighbourhoods and more permissive attitudes from single parents. The current study looked at family structure to assess whether there would be a relationship between the number of parents present at home, or, what is now the norm in black African families in South Africa, the presence of at least one parent plus other adults in the family, such as grandmothers, uncles or aunts, and engagement in risky behaviours. If the findings from the other studies hold true in the South African context, then adolescents in South Africa who come from single-parent homes or child-headed families can be expected to engage more in risky behaviours than those who come from dual-parent or intergenerational families. This is based on the premise that increasing the number of adults in the family would hypothetically increase the supervision of adolescent activities.

Other factors that have been identified to play a role in the early onset of sexual activity include, having siblings and friends who are sexually active, and the level of religiosity on the part of the teenage individual (Whitaker, et al., 2000). Results from this study showed greater sexual experience to be associated with greater risk behaviours, riskier peer norms, poorer parenting and less involvement in school and religion. The present study required adolescents to answer a question on whether their peers were sexually active or not. The

level of religiosity was also addressed by questions that looked at the frequency of church attendance as well as the importance of religion in the adolescent's life. These would be used in the analysis to assess the relationship between religiosity and involvement in risky behaviours.

Peer pressure has been identified in South African studies as having an influence on adolescents' engagement in risky behaviours. Twenty-two percent of sexually experienced adolescents say they are having sex because they are afraid of what their friends would think if they did not (LoveLife, 2001). It seems as if although HIV / Aids awareness is high among our youth, this knowledge has not changed their sexual behaviour (A. Karnell, personal communication, July 18, 2002). This was said in light of the fact that, although, according to the National Youth Survey (LoveLife, 2001), 91% of the 12 to 17 year olds have heard of HIV/Aids, only 83% of this sample recognised that the best way to protect themselves from the virus was through the use of a condom. In the same study, 41% of the sexually active youth admitted that they do not always use a condom when they have sex. What the above findings reveal is that almost half of the sexually active population of our youth is not taking the necessary precautionary measures to protect themselves from diseases, and other consequences of engaging in sexual intercourse.

According to recent research in South Africa (LoveLife, 2001; Kelly & Parker, 2000 cited in Eaton, Flisher & Aaro, 2003), some young people use sex as a commodity in exchange for money, drinks, food or other gifts. Kaufman and Stavrou (2002) found similar findings in their study where focus group discussions with youth aged between 14 and 22 revealed that sexual relationships among the youth are often pinioned by an economic exchange of gifts or other favours for sex. The results from the LoveLife study revealed that 42% of sexually

experienced youth know someone of their age who has had sex for money, and 10% of the sexually experienced girls said they themselves had done so. Fourteen percent of the boys in this study also admitted that they had given a girlfriend pocket money or bought her food or drinks in return for sex.

The current study hopes to highlight the important role that parents could play in preventing their adolescents from participating in risky behaviours by being more consistent in their monitoring practices, which should help in preventing the circumstances that could lead their adolescents into these behaviours. The next section of this chapter looks at alcohol use / abuse and how this relates to unsafe sexual practices amongst other things.

2.3 Alcohol and drug use among adolescents

2.3.1 Alcohol use

In America research has demonstrated that adolescents who use one substance are very likely to use another, and that those who develop quickly in the use of one substance tend to also develop faster in the use of the other (Duncan, Strycker & Duncan, 1999). Many authors have also demonstrated the relationship between alcohol use and engagement in other risky behaviours, (CASA, 1999 cited in Pergamit, Huang & Lane, 2001; Flisher, Ziervogel, Chalton, Leger & Robertson, 1996; Staton, Leukefeld, Logan & Zimmerman, 2002). The Center on Addiction and Substance Abuse (CASA) study in America found that adolescents who consume alcohol or take illicit drugs are more likely to engage in sex, to do so at a younger age and to have several partners, (Pergamit *et. al.*, 2001). Zimmerman, Novak and Donohew (cited in Karnell, 2001) found that adolescents who had had sex were four times more likely to have drunk alcohol at the time it happened, than not to have had alcohol when it happened. Similar findings appeared from the Sutherland study (2002) who found that 44% of sexually active teenagers reported that they were more likely to have sexual intercourse if they had been drinking. Duncan *et al.* (1999) found that youth who had high levels of alcohol or cigarette use also had high levels of marijuana use at the same point.

Alcohol intake is increasing at an alarming rate in other countries as well as in our country, especially among the adolescent population. According to Sutherland (2002), in America, more than 80% of teenagers have drunk alcohol by the time they are in high school. What is of note, according to the same author, is the sharp, age-related increase in alcohol intake which was estimated to be around 54% of 13-14 year olds who consumed alcohol in 1997, compared to 39% in 1996. Here in South Africa, Rocha-Silva, Mokoko & Malaka (1998) found that 34 % of African youth, aged between 10 and 21 said they had used alcohol in the

year prior to the study. In another South African study Visser and Moleko (2002) found that 27 % of their sample indicated that they drank alcohol with 14 % indicating that they had drunk alcohol in the month prior to the study. Information collected by the Alcohol and Drug Abuse Research Group of the Medical Research Council, between 1997 and 2000 revealed high levels of binge drinking among adolescents across the country (Myers & Parry, 2002b). In the same study, Myers and Parry found that by grade 11, over a third of males in Cape Town and more than half the males in Durban reported binge-drinking in the two weeks prior to the study. The same study found alcohol most likely to be reported by African adolescents as their primary substance of abuse.

In South Africa males have been found to report drinking slightly more than females, (Flisher, Ziervogel, Chalton, Leger & Robertson, 1993; Karnell, 2001; Myers & Parry, 2002b, Sutherland, 2002). This gender difference, according to Karnell (2001), has been found to be slightly more pronounced in the African adolescent population. In South Africa, the Flisher et al. (1993) study found that incidents of binge drinking were reported more by African males, than they were by their white counterparts. Binge drinking in this case was defined as 'having five or more drinks on four or more occasions within the past two weeks' (Flisher et al., 1993). These findings were confirmed by Parry and Myers (2002b), where they found levels of binge drinking among grade 11s, to be 36,5% for males and 18,7% for females, two weeks prior to the study.

In America most adolescents begin drinking at around age 13, with some starting earlier (Sutherland, 2002). In South Africa, Flisher et al. (1999, cited in Karnell, 2001) found the average age of initial alcohol use to be roughly the same for boys and girls, with the average age for boys around 14,7 years and that for girls around 14,9. According to Alexander (1993)

adolescents who begin using drugs and alcohol early set themselves at risk for problem drinking later on in life. The same findings are demonstrated by Hawkins, et al. (1997, cited in Pergamit, et al., 2001) who found that the younger the age of alcohol initiation, the greater the level of alcohol related problems in late adolescence. Adolescent alcohol and other drug use have also been shown to lead to deterioration in psycho-social functioning which is characterised by impaired psychological and social development as well as poor peer and family relationships (Myers & Parry, 2002a).

Among the determinants of alcohol use identified by South African studies are the following: urbanisation (Flisher & Chalton, 2001), poor academic performance and not being raised by both parents (Flisher et al., 1996), risk behaviours such as having sex with a near-stranger, (Morojele, *et. al.*, 2001, cited in Karnell, 2001), peer influence (Morojele, *et. al.*, in press, cited in Karnell, 2001; Alexander, 1993; Sutherland, 2002), as well as community factors. Amongst the community factors identified by Morojele (2001) was the perceived availability of drugs. Obviously if drugs and / or alcohol are freely available in the community it would be that much easier for adolescents to start experimenting with these. Parental monitoring could play an important role here in ensuring that adolescents are not exposed to situations that could lead to or encourage experimentation in alcohol or drugs. Among the reported reasons for drinking alcohol are: wishing to alter one's mood and also wanting to experiment (Rocha-Silva et al., 1998), wanting to reduce inhibitions as well as to give oneself increased self confidence and adult status (Ziervogel, Ahmed, Flisher & Robertson, 1997).

The present study assessed alcohol use in adolescents, looking specifically at age of initiation and frequency of use. This information was later examined in relation to parental monitoring, family structure and the presence of conflict within the family unit.

2.3.2 Drug abuse

In South Africa, cannabis or dagga has been found to be the most common primary drug of abuse among adolescents (Myers & Parry, 2002a). In the Myers and Parry study, adolescent arrestees were more likely to test positive for cannabis use than any other drug (53% cannabis-positive). Mandrax is the second most commonly used drug in this group with 30% of adolescent arrestees testing positive for its use. Overall, the Myers & Parry study found that among school-going youth, cannabis was the most frequently used, followed by inhalants, Mandrax, Ecstasy and crack cocaine.

The current study assessed the use of dagga (cannabis), Mandrax, white pipe (mixture of dagga and Mandrax) and inhalants (glue and other solvents). Adolescents were required to answer questions on whether they had previously used any of these substances, as well as questions about their sexual behaviour (whether they have had sex, and whether they used contraception at first and last sexual encounter). These were later computed to form a scale of risky behaviour. Based on their answers to these questions adolescents were then categorised as high risk or low risk.

In a study by the Human Sciences Research Council (1996) of drugs and alcohol intake's contribution to crime, the following conclusions were drawn:

- Drug intake tended to precede first involvement with criminal activities.
- The use of dagga (*marijuana, cannabis*) tended to precede the use of alcohol, which in turn led to illicit drug taking and the latter concurrently led to involvement in criminal activities.

- Taking drugs immediately before or at the time of committing an offence was common.
- Rape and housebreaking/burglary were associated with drinking, especially group drinking and drinking in public places.
- Property crimes (such as housebreaking) were associated with the smoking of dagga in groups.

Myers and Parry (2002a) also found a link between the use of cannabis and Mandrax and crime, especially vehicle theft, organised crime and property crime. According to the HSRC study, there is reason to believe that the drug-crime lifestyle stems from a breakdown in family relationships as well as poverty in the pre-adolescent's life (HSRC, 1996). These findings emphasize the important role played by family and the environment in influencing the adolescent's involvement in risky behaviours.

According to Rocha-Silva et al. (1998), the use of drugs seems to be associated with entry into adult roles, especially among the African youth, and it also seems to be intertwined with lack of integration with social regulatory institutions, such as the "family" and "church".

Although Rocha-Silva and colleagues did not explore the reasons for drug use in their study, they did however note that the reasons given by the adolescents for this practice were positive reasons. This could mean that the youth suggested that taking drugs such as dagga offered health benefits to the individual. Alexander (1993) also noted that teenagers considered inhalants to be without risks, which means that adolescents might not be aware of the adverse side effects of these drugs. Among those that she noted were: confusion, impulsivity and, at higher doses, seizures and cardio-respiratory arrest.

In as much as a relationship has been found between alcohol use and engagement in sexual behaviour, the same has been demonstrated for drug use. Flisher, et al. (1996) found a correlation between drug abuse and whether the adolescents had ever had sexual intercourse. Likewise, Morojele, et al. (2001, cited in Karnell, 2001) found correlations between use of alcohol, other drugs, contraception non-use, and sex with a near-stranger. Flisher and colleagues in their 1996 study found evidence of a syndrome of risk-taking behaviours, which include binge drinking, cannabis smoking, sexual intercourse and suicidal behaviour, among others.

In summation, different studies in South Africa and abroad, have demonstrated a positive relationship between engaging in one risky behaviour and others. This has been coined the “co-variation” of risky behaviours by various researchers. Also many of the studies discussed in the literature above have demonstrated the inverse relationship between engagement in risky behaviours and the level of perceived parental monitoring. The current study therefore aims to enquire into the nature of this relationship in the South African context. Should the current study confirm the findings from previous studies, recommendations for interventions arising from the analysis of the effects of the factors in this risk model, will be considered, with special emphasis on perceived parental monitoring.

CHAPTER 3 METHOD

The research design used in this study was a cross-sectional survey. This design was chosen because it is the most cost effective and the most time saving given the fact that data is collected once only, and also given the limited budget for this research. Even though a cross-sectional survey has these advantages, the difficulty with this design is the fact that it does not allow one to demonstrate causality amongst the variables since it does not allow the researcher to demonstrate change over a certain time period.

The main question this study aimed to answer was if there would be a relationship between the level of perceived parental monitoring and engagement in health-related risky behaviours on the part of the adolescents involved in the study, and also to assess the nature of that relationship. The researcher sought to answer this question by looking at the following sub-questions:

- Are there gender differences with regards to the level of parental monitoring perceived by adolescents?
- Does perceived parental monitoring increase or decrease with age (or advancing grade in school)?
- Do adolescents who come from families with both parents or intergenerational families engage more or less in risky behaviours than those who come from single parent or child-headed families?
- Does the level of religiosity predict engagement in risky behaviours, in other words, do adolescent who are more religious engage less in risky behaviours?
- What are the best predictors of engagement in risky behaviours?

The following data was thus collected in an attempt to answer the above questions of the study:

Demographic variables:

3.1 Sample:

3.1.1 Demographic Information

Overall 705 high school learners took part in this study. The participants were between the ages of 12 and 18 and were drawn from four schools in and around the city of Pietermaritzburg in KwaZulu-Natal. This sample came from grades 8 and 9 of the participating schools. Two of these schools were township schools and the other two were suburban schools. This study aimed to include adolescents who came from different socio-economic backgrounds, which was the reason for the inclusion of both township and suburban schools in the sample. Township schools are generally populated by children from lower as well as middle socio-economic groups, whereas city or suburban schools, due to the nature of their fees, attract those students from middle to upper level socio-economic backgrounds (Karnell, 2001).

Gender, Ethnicity, Grade level and Age

The adolescents were required to indicate their gender, ethnicity, grade level and age in the questionnaire. The final sample was made up of 357 boys (50.6%) and 338 girls (47.9%) who are currently in grades eight and nine at their respective schools. A further 1.5% ($n = 10$) of the learners did not indicate their gender on the questionnaires. These cases were omitted in data analyses that investigated gender differences across different behaviours. Overall 152 girls came from grade 8 and 149 came from grade 9. Two girls did not indicate which grade

they were in. Similarly 155 of the boys came from grade 8 (47.5%) whereas 160 (49%) came from grade 9. Eleven boys did not indicate which grade they came from.

School * Grade level Crosstabulation

Count		Grade level		Total
		Grade 8	Grade 9	
School	Township School F	163	158	321
	Township School S	67	58	125
	City School A	35	56	91
	City School L	65	85	150
Total		330	357	687

Gender

		Frequenc	Percen	Valid	Cumulativ Percen
Valid	femal	338	47.7	48.6	48.6
	mal	357	50.4	51.4	100.0
	Total	695	98.0	100.0	
Missin	Syste	10	2.0		
Total		705	100.0		

All the adolescents were of African origin but came from various ethnic backgrounds, with Zulu being the predominant ethnic group in KwaZulu-Natal. The final sample was 91% Zulu ($n = 635$), 5% Xhosa speakers ($n = 35$) and 1.7% of Sotho learners ($n = 12$). Three percent of the participants ($n = 21$) did not indicate their ethnic background.

The age of the participants ranged from those who indicated that they were 13 years or younger (17%), to two percent of the girls ($n = 7$) and 5% of the boys ($n = 18$) indicating that they were 18 years or older. The average age in grade 8 was 14 years for both boys and girls,

and 15 for both boys and girls in grade 9. Detailed graphical presentations describing the sample are presented under the results section in Chapter 4.

3.1.2 Family structure

Family structure was assessed by asking the learners to indicate which people they lived with at home (see appendix A). The information collected with regards to this was used to identify those who came from two-parent or intergenerational families and those who came from single-parent and / or child-headed families. The adolescents were then categorised as coming from traditional (dual parent or intergenerational families, with two or more adults at home) or non-traditional families (single parent / child-headed) depending on the answers they gave to the above questions.

Sixty-two percent of the sample that answered this question ($n = 427$) indicated that they lived with both parents or two or more adults at home. This sample was categorised as coming from traditional families. Thirty-eight percent of the sample ($n = 266$) indicated that they came from single parent or child-headed families. This sample was categorised as coming from non-traditional families. Although single-parent families are quite different to child-headed families, the two groups were put together in one category of non-traditional families due to the absence of both parents or two or more adults, something which, although is becoming quite common in South Africa, is still not the norm in our society. Less than two percent of the sample ($n = 12$) did not indicate which people they lived with all or most of the time, which meant that they could not be categorised as to the type of family they come from. This information was later used to examine any correlations between type of family and level of perceived parental monitoring / or type of family and engagement in risky behaviours.

3.2 Measures

A questionnaire adapted from the Adolescent Health Survey (National Institute of Health, 1997) was used to collect data in this study. The Adolescent Health Survey is a questionnaire that is used in the USA to conduct national surveys and it is designed to measure the effects of family, peer group, school, neighbourhood, religious institution and community influences on behaviours that promote good health as well as on health risks among adolescents. This questionnaire assesses among other behaviours, tobacco use, sexual activity, drug and alcohol use. This questionnaire was adapted by discarding those measures that do not relate to the specific objectives of the current study such as those assessing depression, sun exposure and neighbourhoods of the adolescents. Only those measures assessing risky behaviours such as alcohol, sexual activity and drug use, as well as those assessing perceived parental monitoring as well as the demographic information of the sample were kept.

Before the study was conducted, the questionnaire was piloted on a group of youth similar to the sample of the study. These learners were asked to complete selected questions and they were probed for their understanding of the questions to check if they understood what the questions required of them. The questions were also translated into isiZulu and back-translated into English to make it easier for a person whose first language is isiZulu to understand them.

The final questionnaire is made up of a number of sub-scales that measure different behaviours (see appendix A). This questionnaire looked at, among other things, the adolescents' family structure, level of perceived parental monitoring, level of religiosity, attitudes towards condom use and engagement in various risky behaviours.

Perceived parental monitoring, which was the main predictor variable, was assessed by a sub-scale that was made up of five questions such as: "My parents know where I am after school", "My parents know who my friends are", "My parents know how I spend my money". In this case adolescents responded to each item using a Likert scale ranging from 1, = "Completely Agree" to 5, = "Completely Disagree". The internal consistency of this sub-scale as measured by Cronbach alpha was 0.59. According to Loewenthal (2001), a scale with a small number of items is not likely to get high reliability coefficients.

A score of perceived parental monitoring was computed using the answers that the adolescents gave, with 5 being the lowest score they could get if they answered "Completely Agree" to all the questions, thus indicating the highest level of parental monitoring, and 1 being the highest score one could get, thus indicating the lowest level of parental monitoring. This scoring was later reversed so that a high score would indicate high parental monitoring and a low score would indicate low parental monitoring. A mean of this score was then computed which placed the adolescent on a scale of 1-5 with 1 indicating the lowest level of parental monitoring and 5 indicating the highest level of parental monitoring perceived by an adolescent. In order to put adolescents into categories of high or low monitoring, a score of 4 on this scale was used as a cut-off point, with those scoring 4 and above being categorised as receiving high parental monitoring and those scoring less than 4 being categorised as receiving low parental monitoring. This was because if any participant's score fell between 1 and 2 on this scale this would be an indication that that participant perceived themselves to be receiving a low level of parental monitoring whereas a score of 3 was an indication of a medium level of perceived parental monitoring. A score of 4 and above therefore indicated a high level of perceived parental monitoring.

Level of religiosity was assessed by a set of three questions that asked: 1) how often religious services were attended by the adolescent, 2) how important religion was to the adolescent, and 3) how often the adolescent actively took part in youth activities in his / her church. In the first and the third question, the response options were “never” (1) to “almost once a week or more” (4). In the second question, ‘how important is religion in your life’, the response options ranged from “extremely important” (1) to “not at all important” (5). Upon scoring this scale, answers to question 2 were reversed for uniformity, so that a person who is highly religious would score higher than someone who was not religious at all, or displayed a lower level of religiosity. Once the scores were added up and a mean per individual calculated, this information was then used to categorise adolescents into two groups of those who are highly religious and those who displayed a low level of religiosity. In other words anyone scoring above 2 on a scale of 1 to 5 was categorised as highly religious.

Engagement in risky behaviours was assessed by asking adolescents if they did any of the following; used alcohol, used dagga, ecstasy, mandrax, have ever had sex, type of protection (or contraception) at first and last sexual encounter. According to Alexander (1990), common examples of risk-taking behaviour include alcohol and drug abuse, and can also include irresponsible sexual behaviour. The age as well as the frequency of engagement in these behaviours was assessed by asking at what age the teenager started, as well as how many times in the past fourteen days and in the past year the teenager participated in those activities. The behaviours that the individual engaged in were computed to give a score, which would be used as an indication of whether that individual was a high risk or a low risk teenager. This score ranged from 0-7 with 7 indicating the highest level of risk-taking behaviour and 0 indicating no engagement in any of the above behaviours, thus no risk-taking behaviour.

Attitudes towards condom use were assessed by means of a sub-scale that was made up of six questions that included questions such as: 'A condom is not necessary when you are with the same partner for a long time', 'Condoms take away the pleasure of sex', and other similar questions. The response options were also on a Likert scale ranging from 1, which indicated 'agree a lot', to 5 indicating 'Disagree a lot'. All of the questions (except question 43) were reversed upon scoring so that all those who displayed negative attitudes towards condom use would score high on the scale, therefore making it possible to label them as high-risk individuals. The internal consistency for this scale was measured by Cronbach alpha and was 0.61.

Also one of the questions investigated whom the adolescent had spoken to about sex. This was simply to find out if adolescents do talk about sex and which people they prefer talking to about such matters. This question listed a number of possible people that the adolescent might talk to about such matters. The participant had to tick as many of those people as applied to him / her.

Type of contraception and use thereof, were assessed by asking adolescents what type of contraception they had used the first time and last time they had sexual intercourse. Again a list of options were given to which the adolescent had to tick those that applied to him /her. For those adolescents who had never had sex there was an option to say this.

3.3 Procedure

The principals of the two suburban schools were approached and permission to carry the study was sought, once the study had been explained to them in detail. Data from the township schools were collected as part of a larger survey conducted by the University of Kentucky and for which the researcher was employed as research assistant. The University of Kentucky study investigated HIV/Aids and Alcohol Prevention in schools. Once the

principals had given permission for the study to take place, consent forms which the learners' parents had to sign, were left with the principals who offered to explain the study to the learners and hand the consent forms to them (see appendix B). The learners were required to take the consent forms home to their parents and / or guardians who had to sign them if they gave permission for their child to take part in the study, and return the form to school, to hand to the researcher on the day of data collection.

This method of active consent turned out to be a problem for the learners at one of the schools which, because it is a boarding establishment meant that the learners could not get their parents to sign the form in time for data collection to take place. In this case the researcher resorted to using passive consent (those who want to be part of the sample do not have to do anything but complete the survey and only those who do not wish to be part of the sample have to sign a form and leave the survey room) and also stressed to the learners the right to withdraw or refuse to participate in the study. At this point only two learners out of a total of 178 in this one school chose not to participate in the study and they left the classroom. The principal also acted in *loco parentis* in this case. It should also be noted at this stage that passive consent was the method of consent used for all the other schools who participated in the larger survey (the University of Kentucky HIV/Aids and Alcohol Prevention in Schools). Passive consent as a method of giving consent is discussed in detail under ethical considerations in Chapter 6.

On the day of data collection separate classrooms were made available for the researcher to administer the questionnaire to the students who were participating in the study. Each session lasted for approximately sixty minutes. At these sessions the researcher and an assistant as well as two teachers were available to answer any questions to the learners who

needed help to understand the questions. Once the surveys were completed the questionnaires were collected and the researcher took them back to keep them in safe storage which was a locked cabinet at the university.

CHAPTER 4: RESULTS

4A Descriptive Results

The following results describe the sample in detail. This section presents descriptive results first and significance testing follows later under the data analysis section.

4.1 Demographic variables

4.1.1 Sample size

There were 709 adolescents involved in this study. Fifty percent of the sample were boys ($n = 357$) and 47.7% ($n = 338$) were girls. Under two percent ($n = 10$) of the sample did not indicate their gender on the questionnaire. Thirty four percent (34.1%) of the sample came from city schools whereas 65.3% came from township schools. Four learners did not indicate which schools they came from. As far as the grade distribution is concerned, 46.5% ($n = 317$) of the adolescents were from grade 8 with the 50.4% ($n = 344$) of the adolescents currently doing grade 9. Three percent ($n = 22$) of the sample did not indicate which grade they came from.

The graphical presentation on the next page is an illustration of the interactions between the two variables, namely: gender and grade. The following table illustrates the breakdown of the sample on a school-by-school basis. The gender and school grade breakdown follow on the next page.

School				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4	.6	.6	.6
City School A	91	12.8	12.8	13.4
Township School F	331	46.7	46.7	60.1
City School L	151	21.3	21.3	81.4
Township School S	132	18.6	18.6	100.0
Total	709	100.0	100.0	

From the above graphical presentation (age) one can see that the majority of the learners (31%, $n = 212$) indicated that they were 14 years old. Only three percent ($n = 21$) of the learners did not indicate how old they were.

4.1.3 Ethnicity

Zulu being the dominant ethnic group in Pietermaritzburg, 91.5% of the sample ($n = 642$) identified themselves as belonging to the Zulu ethnic group, with 4.4% of the sample indicating that they were Xhosa speaking ($n = 31$) and almost two percent (1.3%) of the group ($n = 9$) identifying themselves as seSotho speakers. One percent of the sample ($n = 7$) did not indicate which ethnic group they belonged to.

The following table is a graphical presentation of the ethnic group distribution of the sample:

Ethnic group		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Zulu	642	90.6	91.5	91.5
	Xhosa	31	4.4	4.4	95.9
	Sotho	9	1.3	1.3	97.2
	Other Black African Group	12	1.7	1.7	98.9
	White	3	.4	.4	99.3
	Coloured	4	.6	.6	99.9
	Another Group Not Listed Above	1	.1	.1	100.0
	Total	702	99.0	100.0	
Missing	System	7	1.0		
Total		709	100.0		

4.1.4 Family structure

Most learners come from traditional two-parent or intergenerational families (see graph below). As explained previously in the methodology section, participants were asked to indicate which people they lived with, all or most of the time. This information was used to

categorise adolescents as either coming from traditional families or coming from non-traditional families. The following table describes the composition of this sample.

Family		Freque	Perce	Valid	Cumulativ Perce
Valid	non-traditional	266	37.5	38.4	38.4
	traditional	427	60.2	61.6	100.0
	Total	693	97.7	100.0	
Missin	Syste	16	2.3		
Total		709	100.0		

Sixty-two percent of the learners came from traditional families with 38% of the sample coming from non-traditional families. This information was later used in data analysis to examine any correlations between type of family the adolescent comes from and engagement in risky behaviour.

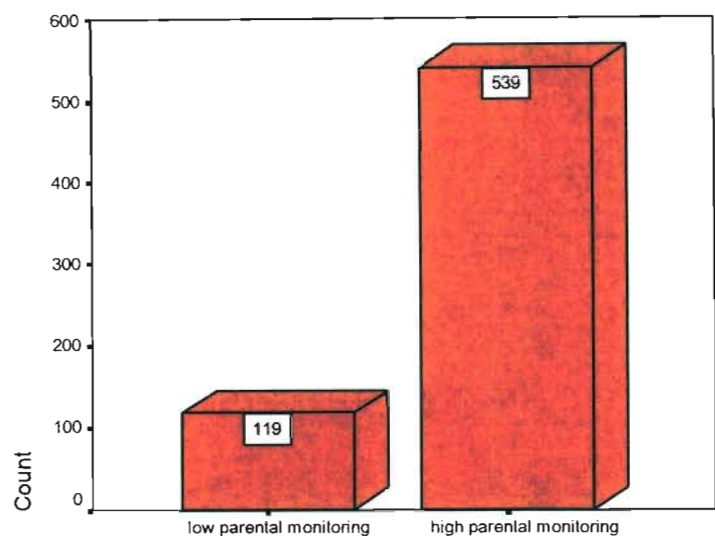
4.2 Main variables

4.2.1 Perceived Parental monitoring:

Based on the answers they gave to the scale that measured perceived levels of parental monitoring the adolescents were categorised as follows: (See graph below).

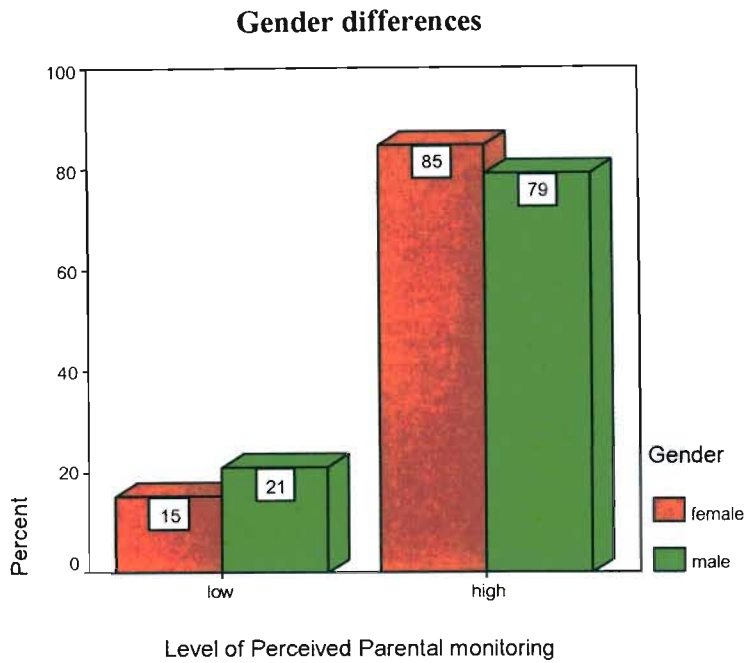
The majority of the participants (76.7%, $n = 539$) were placed in the high parental monitoring category with 17% of the whole sample ($n = 119$) labelled as receiving low parental monitoring. Seven percent ($n = 49$) of the adolescents had not answered all the questions in the scale, which meant that their score on this scale could not be computed. This resulted in them not being placed in either of the two categories.

PERCEIVED PARENTAL MONITORING CATEGORIES



Gender differences

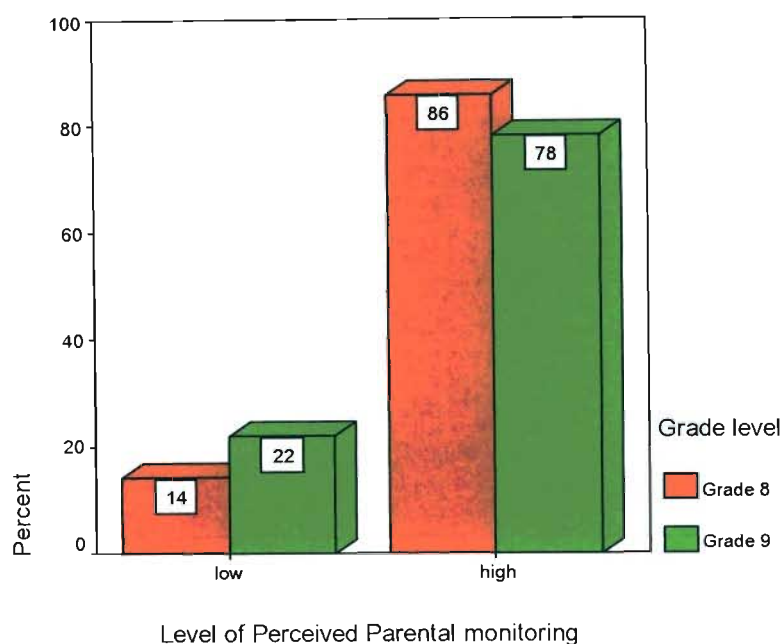
On examining the differences in terms of perceived parental monitoring across the two genders the following were apparent. There were significant differences in the levels of perceived parental monitoring that the two genders receive. Eighty five percent (85%) of the girls across both grade 8 and 9 perceive themselves to be highly monitored by their parents. This figure is 79% for boys across the two grades. (See graph below)



Grade differences

Eighty-six percent (86%) of the grade eight learners ($n = 284$) perceive themselves to be receiving high monitoring from their parents compared to 78% ($n = 278$) of the grade nine learners. The following graphs illustrate these differences for the two grades respectively. (For significance testing see the data analysis section).

Grade Differences

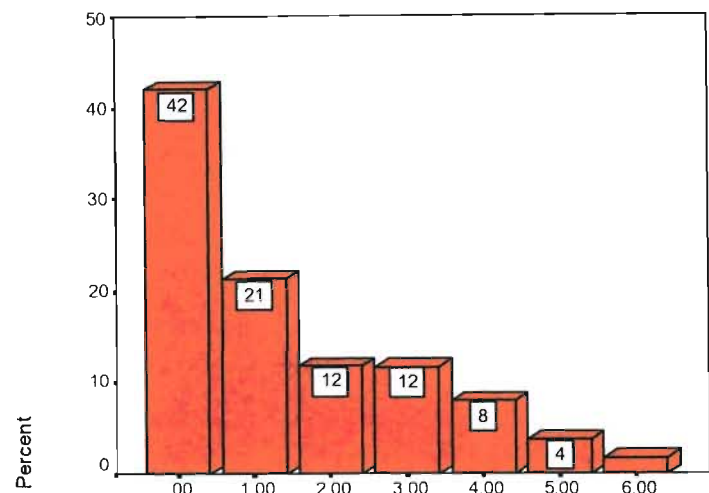


4.2.2 Risky behaviours:

Seven risky behaviours were assessed by the present study and these were: ever had alcohol, ever smoked dagga (marijuana), ever used white pipe (mandrax mixed with dagga), ever used inhalants, ever had sex, had not used contraception at first sexual encounter, and had not used contraception at last sexual encounter. For each one that the adolescent answered “yes” they were given a score of 1, and a score of 0 for those who answered “no” to the question. Each respondent got a score out of a total of seven. If the respondent got a total of three or less they were then classified as “low risk” and if they got a total of four or more they were classified as “high risk”. This information was later correlated with each adolescent’s level of parental monitoring to test the relationship between the two (See data analysis “Correlations” section).

The following were the findings on risky behaviours:

PERCENTAGE OF ADOLESCENTS INVOLVED IN RISKY BEHAVIOURS



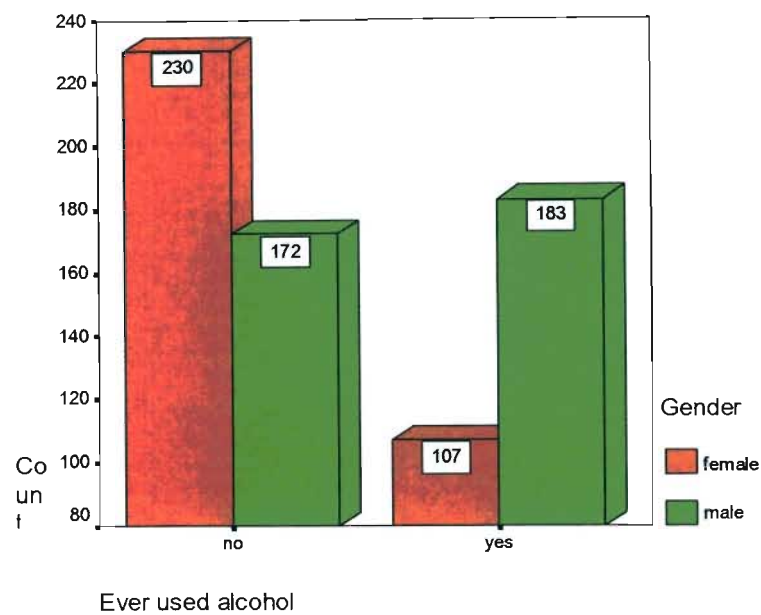
From the above diagram one can see that forty-two percent of the adolescents are not involved in any of the above seven risky behaviours, and that the number of adolescents who are involved in any of the behaviours decreases as the number of behaviours increase. Using this means of computing a score for risky behaviour, a total of 87% of the adolescents in the study were classified as low risk-takers. The breakdown of the different behaviours that the adolescents engage in, follows.

4.2.2a Alcohol:

Gender differences

Overall, 41% of the adolescents in the study have used alcohol compared to 57.7% who have never used alcohol. The differences are more pronounced on examining the gender differences across the two grades.

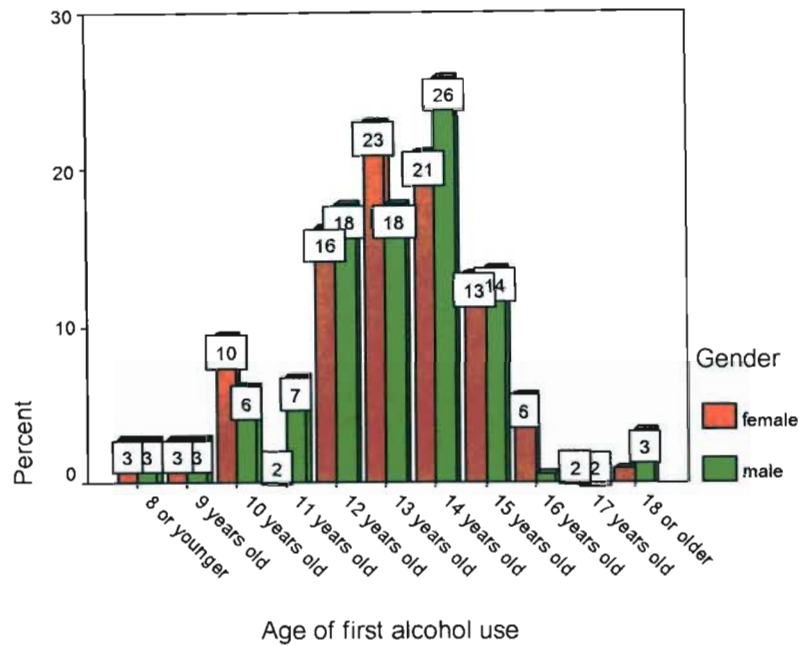
One hundred and eighty-three boys (51% of the boys) have used alcohol compared to 31.7% of the girls ($n = 107$).



The age of first time drinking ranged from three percent of the boys ($n = 11$) who were using alcohol stating eight years old and younger, with three percent of the girls ($n = 8$) stating the same age. On average boys started drinking when they were fourteen years old (26%, $n = 75$) and the majority of girls (23%, $n = 24$) started when they were thirteen years old.

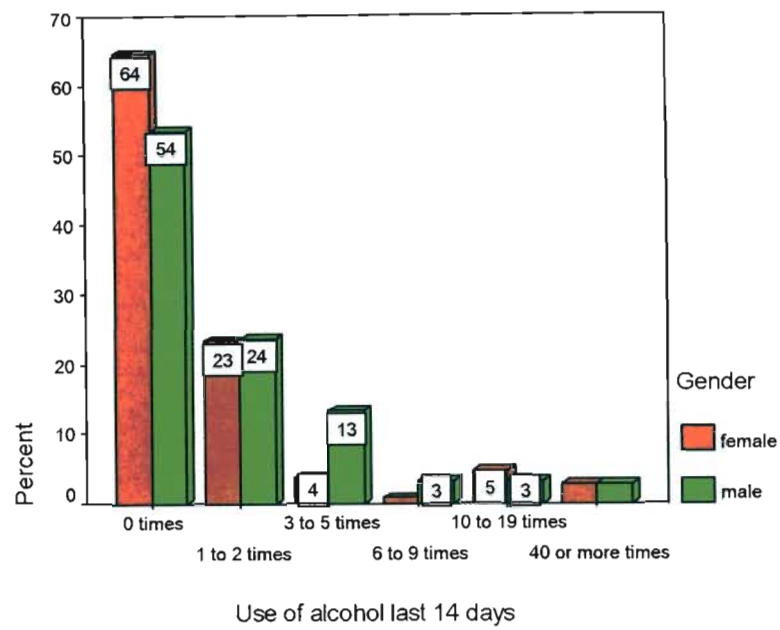
The following graphical presentation illustrates the age of first time alcohol use for both genders.

GENDER DIFFERENCES



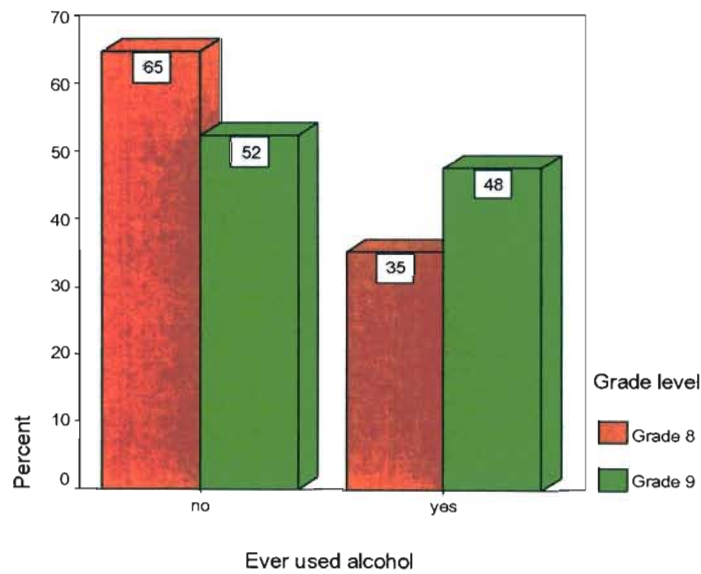
Frequency of drinking alcohol was also measured by asking how many times in the last two weeks, and in the last year the adolescent had had alcohol. The following diagram illustrates the frequencies of drinking alcohol for both genders for the last two weeks before the survey. Sixty-four percent of the girls ($n = 68$) and fifty-four percent of the boys ($n = 97$) who had indicated that they do drink alcohol had not drunk this substance in the two weeks prior to the study. Twenty-three percent of the girls ($n = 24$) had used alcohol 1 to 2 times in the last fourteen days prior to the study, while 24% of the boys ($n = 43$) had done the same. Close to three percent ($n = 3$) of the girls indicated that they had used alcohol 40 or more times in the last two weeks before the study and the number for boys was almost the same ($n = 5$).

GENDER DIFFERENCES



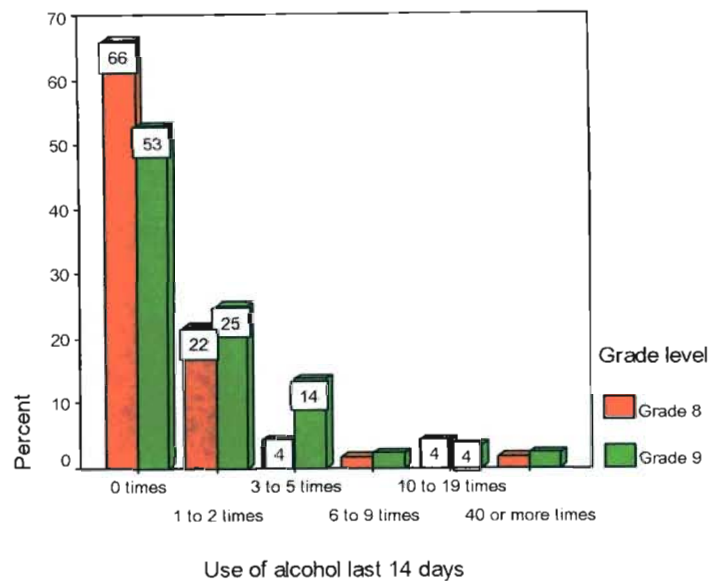
Grade differences

Thirty five percent (n = 115) of grade eight learners have used alcohol compared to 48% (n = 170) in grade 9.



As far as the frequency of alcohol use, two weeks prior to the study, between the two grades is concerned, the following results were the findings of this study.

GRADE DIFFERENCES

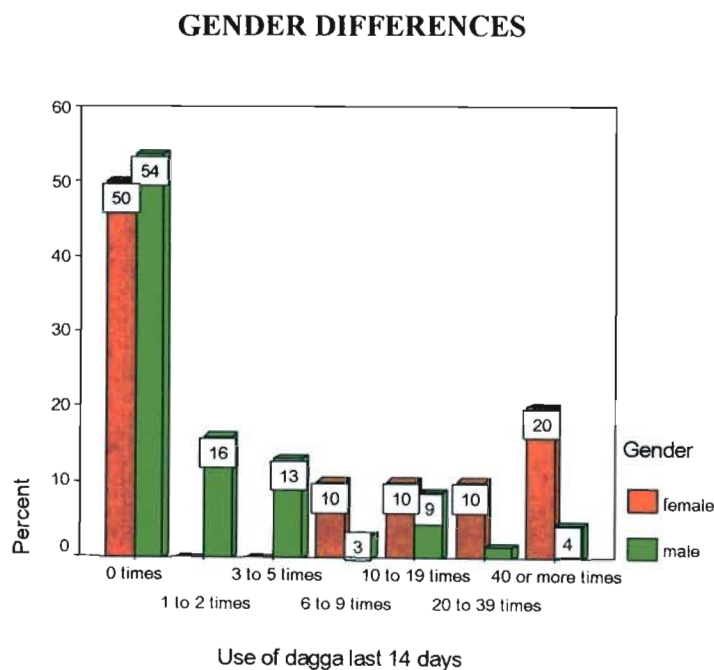


The above graph illustrates use of alcohol among the learners in both grades. Twenty-two percent of the grade 8 learners ($n = 25$) who had admitted to drinking alcohol, had used alcohol 1 to 2 times in the last two weeks prior to the study. However 66% ($n = 76$) of the grade 8 learners who drink alcohol had not used alcohol in this period. This figure changes to 53% of the grade 9 learners ($n = 89$) who do drink alcohol, but had not had alcohol in the two weeks prior to the study. However, 25% ($n = 42$) of grade 9 learners who do drink alcohol had had alcohol, 1 to 2 times in the last fourteen days prior to the study. Less than 2% ($n = 2$) of the grade 8 learners who do drink alcohol indicated having drunk alcohol 40 or more times in the last two weeks prior to the study. The figure for grade 9 learners is 2.4% ($n = 4$).

4.2.2 b Dagga (marijuana)

Close to twenty percent (19.6) of the boys ($n = 70$) have used dagga compared to three percent ($n = 10$) of the girls. The majority of boys who have used dagga (4.5%) indicated that they started using it when they were eight years old with less than one percent (0.6%) of the girls stating that they started when they were eight years or younger.

The following table illustrates the use of dagga in the last fourteen days amongst the two genders from both grades:

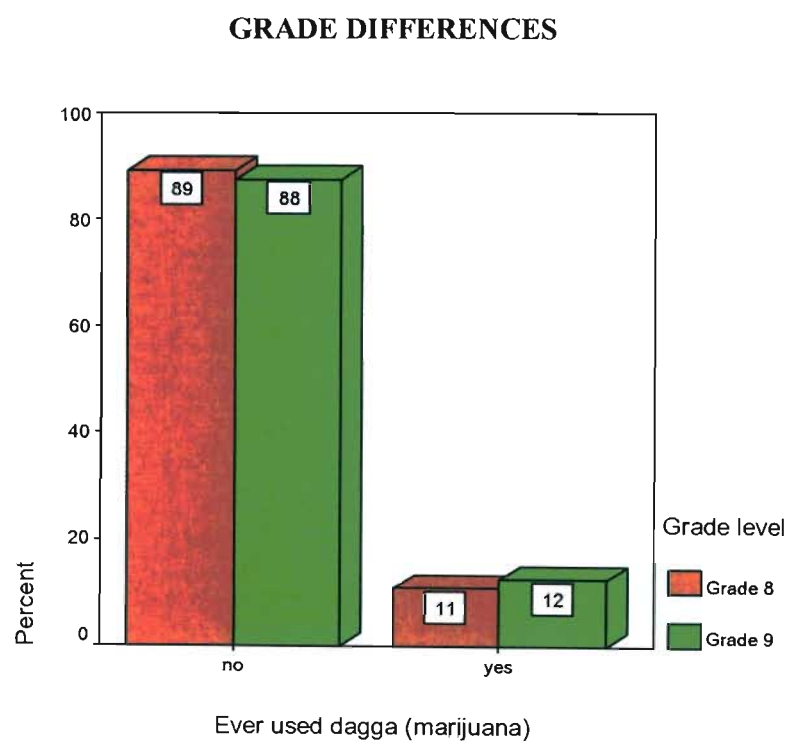


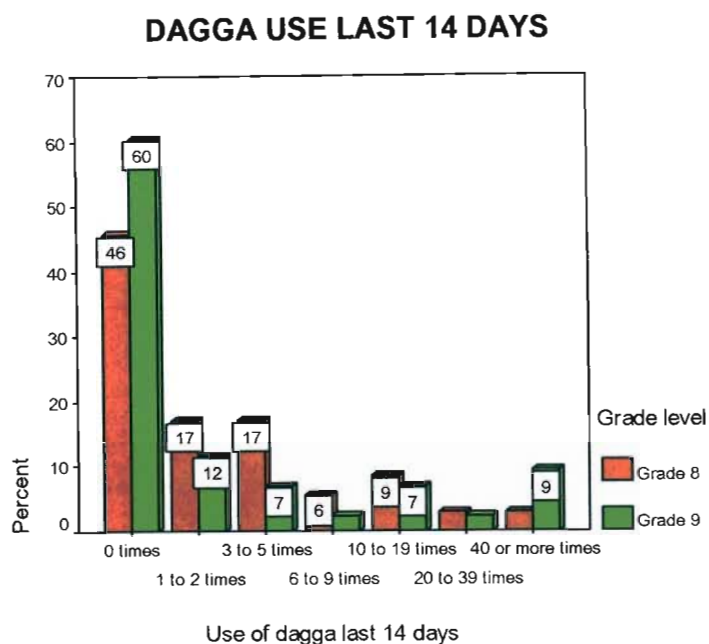
Sixteen percent of the boys ($n = 11$) indicated that they had used dagga 1 to 2 times in the last two weeks prior to the study. However, none of the girls indicated having used dagga 1 to 2 times in the last two weeks prior to the study. Two girls (20% of those who use dagga) and three boys (4.3% of those who use the substance) who have used dagga indicated that they

had used it 40 times or more in the last fourteen days prior to the study. This could be an indication of a serious addiction on the part of these learners which the teachers could have or have not been able to pick up.

Grade differences

There were notable differences in dagga use between the two grades. Eleven percent of grade eight learners ($n = 35$) have used dagga, compared to twelve percent of the grade nine learners ($n = 44$).





On examining dagga use in the last fourteen days for grade nine the following were the findings:

Compared to grade eight learners the majority (60%) of grade nine learners ($n = 26$) who use dagga had not had this substance in the fourteen days prior to the study. The figure was 46% for the grade eight learners ($n = 16$). Seventeen percent of grade 8 learners who smoke dagga had used this substance 3 to 5 times in the last two weeks prior to the study. However seven percent of the grade 9 learners who smoke dagga had used it 3 to 5 times in the two weeks prior to the study. Only one learner in grade 8 indicated having used dagga 40 or more times in the last two weeks before the study. The figure slightly increases to 4 learners in grade 9.

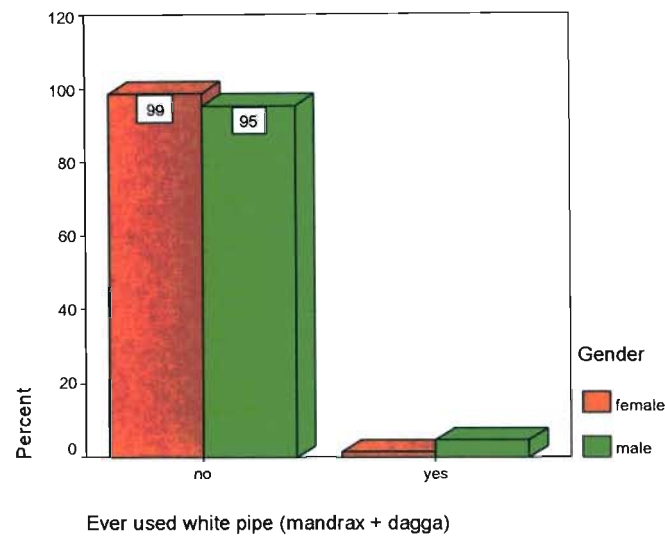
4.2.2 c White pipe:

Gender differences

White pipe is not a very common drug amongst high school adolescents with only 4.8% ($n = 17$) of the boys indicating that they have used it and only 1.5% ($n = 5$) of the girls indicating

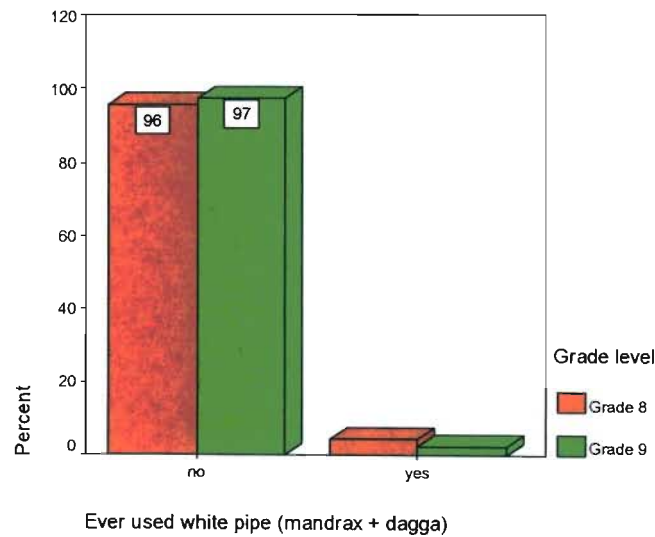
use of this substance. The age of first time use as well as the frequency thereof was not assessed because of the uncommon use of this drug.

GENDER DIFFERENCES – WHITE PIPE



Grade differences

Four percent of grade eight learners ($n = 14$) have used white pipe compared to 2.5% of the grade nine learners ($n = 9$) who say that they have used this substance.

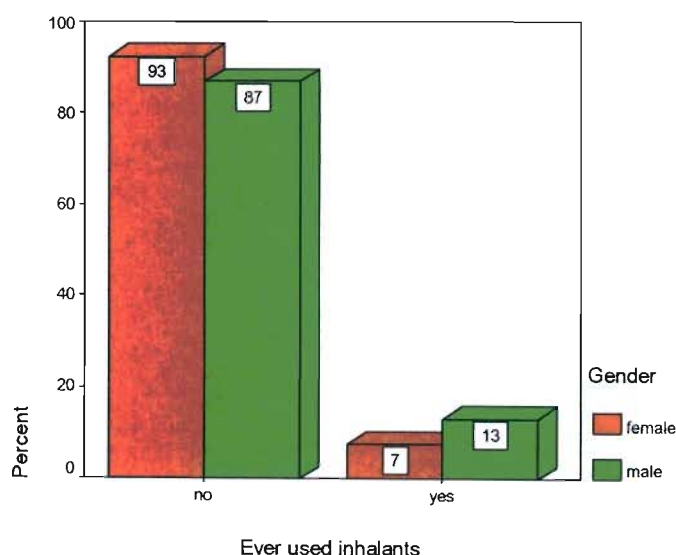


4.2.2 d Inhalants:

Gender differences

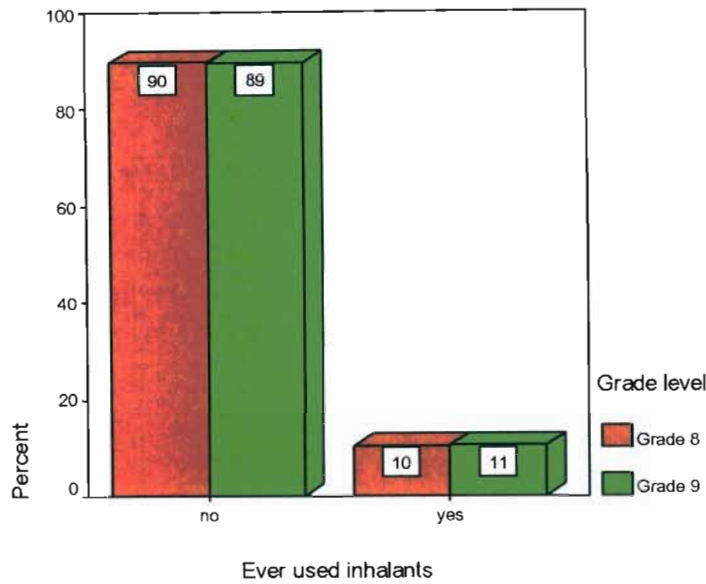
Inhalants may include any of the substances such as glue, paints, sprays and even petrol.

Close to thirteen percent (12.9%) of the boys has used inhalants ($n = 46$) with 7.1% ($n = 24$) of the girls having also used these substances. Again this substance is not as common as alcohol and marijuana among this sample of adolescents.



Grade differences

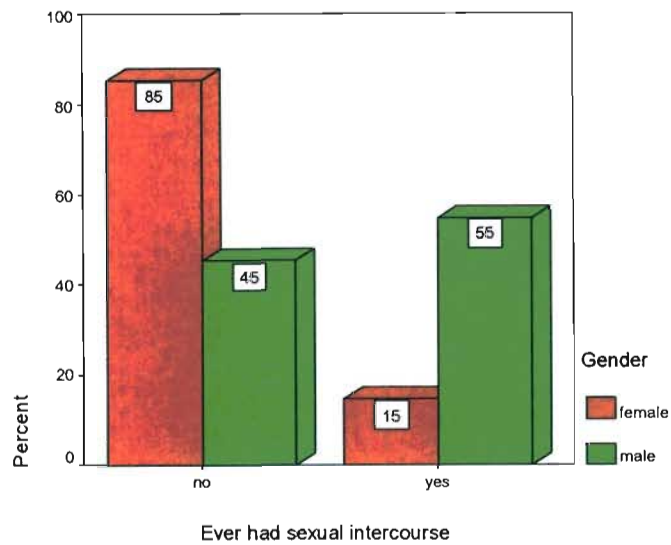
On comparing the two grades in this substance abuse, the use of inhalants appears to be almost similar across the grades with only a 0.1% ($n = 3$) difference between the two grades. The following graph illustrates this difference across the two grades.



4.2.2 e Sexual activity:

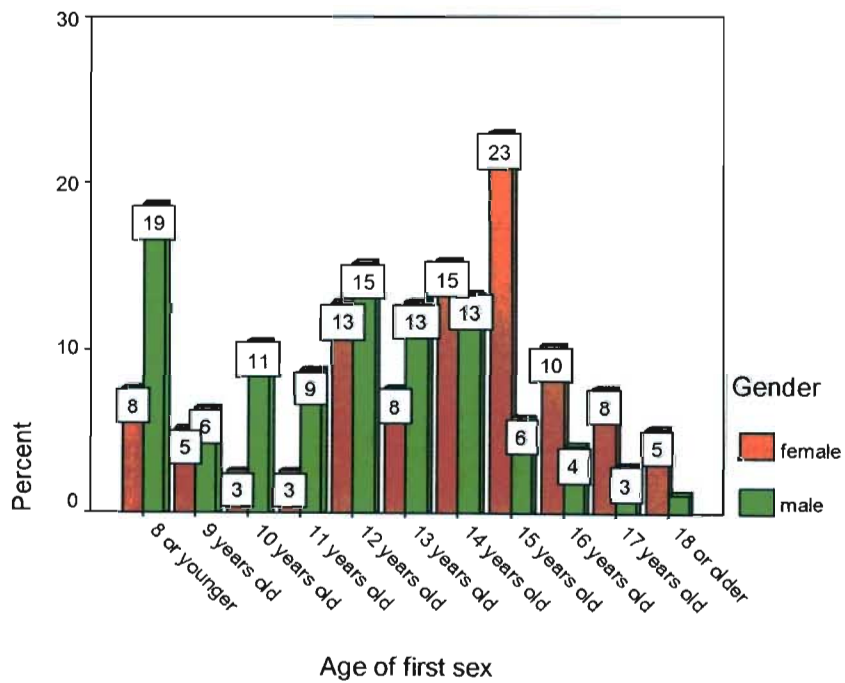
Gender differences

When making comparisons across the two genders it was discovered that 55% of the boys ($n = 196$) have had sex compared with only 15% of the girls ($n = 50$). Twenty-two girls (6.5%) and 28 boys (7.8%) did not answer this question. It is possible that those who did not answer this question were too embarrassed to do so. The researcher had explained to the participants at the beginning of the survey that they could leave unanswered, questions that they found too embarrassing to answer. The following graph illustrates the gender differences across the two grades.



On average most boys (19%, $n = 32$) start having sex around the time they are eight years old, with most girls (23%, $n = 9$) waiting until they are about fifteen years old.

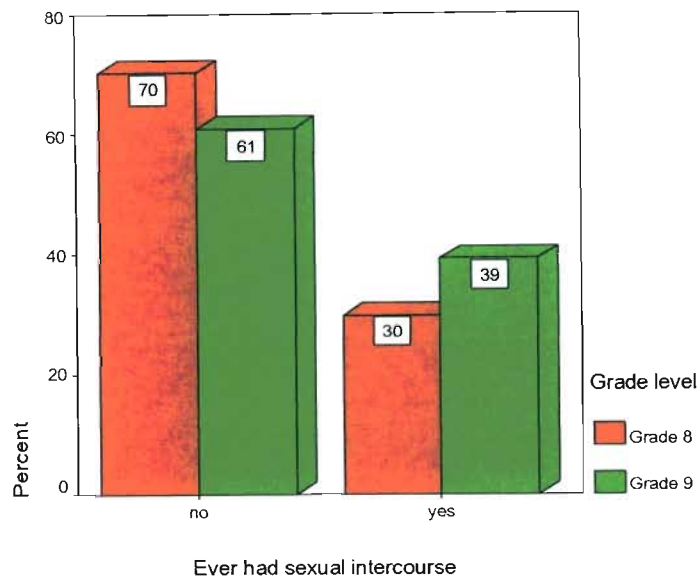
GIRLS



Grade differences

The following grade differences were noted in terms of sexual activity:

Thirty-nine percent of grade 9 learners ($n = 139$) have had sex compared to 30% of grade 8 learners ($n = 99$).



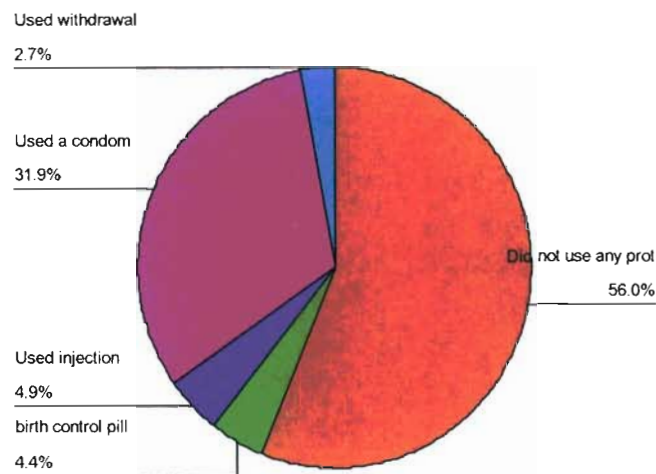
4.2.2 f. Form of protection at first and last sexual encounter

Gender and grade differences

On being asked what type of protection they used on their first sexual encounter, 56% of the boys ($n = 101$) who have had sex indicated that they did not use any type of protection during their first sexual encounter. Almost 50% of the girls ($n = 23$) from both grades indicated that they had not used any protection during their first sexual encounter. Of note is the fact that some boys indicated that they had used birth control pills (4.4%) and also 4.9% indicated using the injection. This is an unexpected finding seeing that these modes of contraception are only available to females. An explanation for this could be that these boys indicated these options simply because their partners were using them, and so felt that it was the type of contraception that they used.

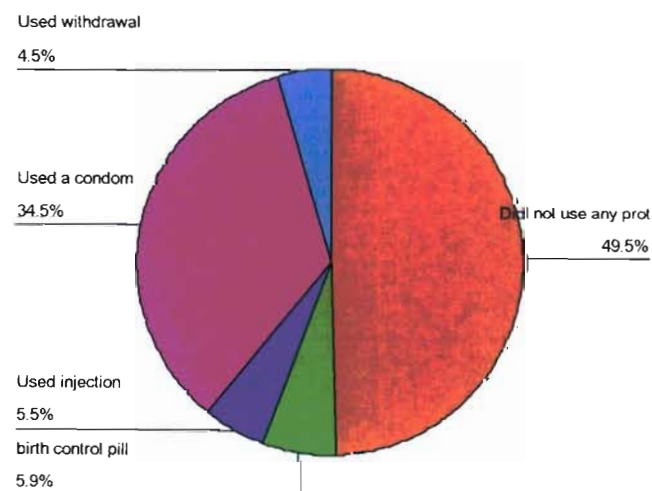
Pie charts have been used in this case simply because they allowed the researcher to display the percentages instead of bar graphs that could only display means that may be difficult to interpret.

BOYS' MEANS OF PROTECTION FIRST SEX



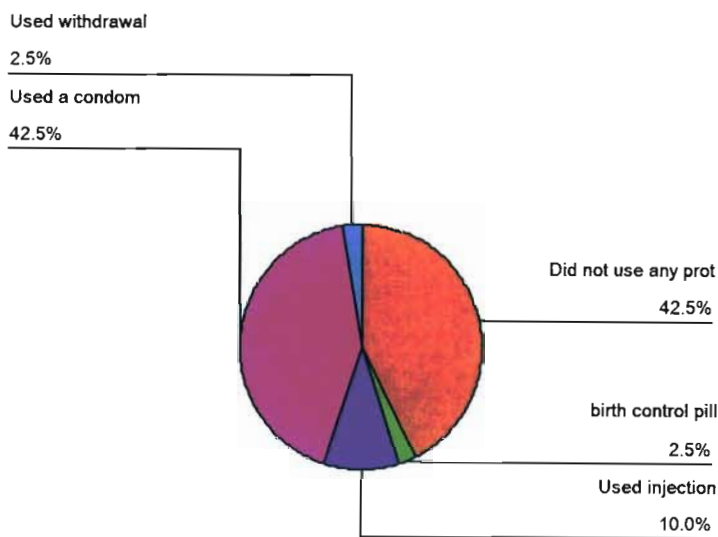
The following graph presents the results for the girls' means of protection at first sexual encounter:

GIRLS' MEANS OF PROTECTION FIRST SEX



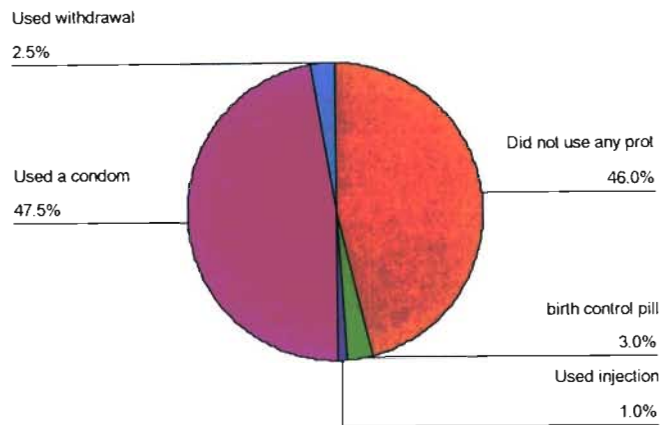
Forty-three percent of the girls ($n = 20$) from both grades 8 and 9 did not use any form of protection on their last sexual encounter. This figure increases to 46% of the boys who indicated that they had not used any protection on their last sexual encounter.

GIRLS' MEANS OF PROTECTION LAST SEX



The following graph illustrates the results of the boys' means of protection on their last sexual encounter. Here again one percent of boys indicated using the injection and also three percent indicated using birth control pills. The same explanation suggested under means of protection during the first sexual encounter can still be used in this instance.

BOYS' MEANS OF PROTECTION LAST SEX

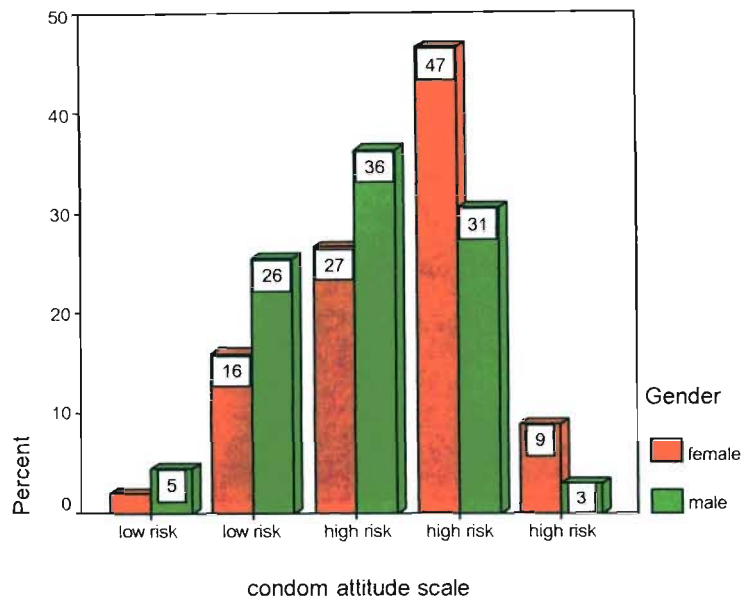


4.2.2.g Attitudes towards condom use

Gender differences

Attitudes towards condom use were assessed by means of a sub-scale that was made up of six statements that included statements such as: 'A condom is not necessary when you are with the same partner for a long time', 'Condoms take away the pleasure of sex', and other similar statements. Participants had to indicate whether they agreed or disagreed with these statements using a Likert scale ranging from 1, which indicated 'agree a lot', to 5 indicating 'Disagree a lot' and earning a score point similar to the response option selected, so that someone who selected disagree a lot earned 5 points. All of the questions (except question 43) were reversed upon scoring so that all those who displayed negative attitudes towards condom use would score high on that scale, therefore making it possible to label them as high-risk individuals. All the scores were added up and averaged so that any individual who got a score of three or above on this scale was labelled as high risk. The following graph represents the findings from the two genders.

GENDER DIFFERENCES

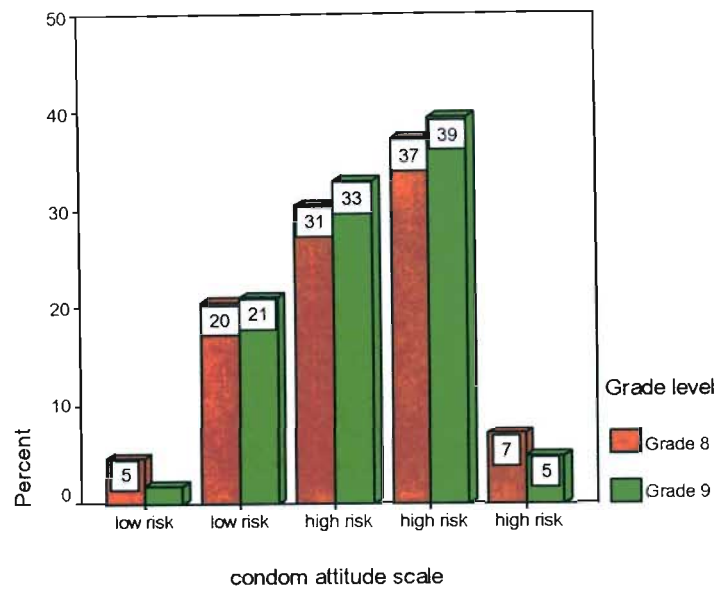


Based on the answers they gave to the questions, 83% of the girls ($n = 280$) were labelled as high-risk. For boys the figures are 70% high-risk ($n = 249$) and 30% low-risk.

Grade differences

Seventy-five percent of grade 8 learners ($n = 267$) were labelled as high-risk based on the answers they gave to the scale measuring attitudes towards condom use. This figure increases to 77% of grade 9 learners ($n = 254$) who displayed negative attitudes towards condom use.

GRADE DIFFERENCES

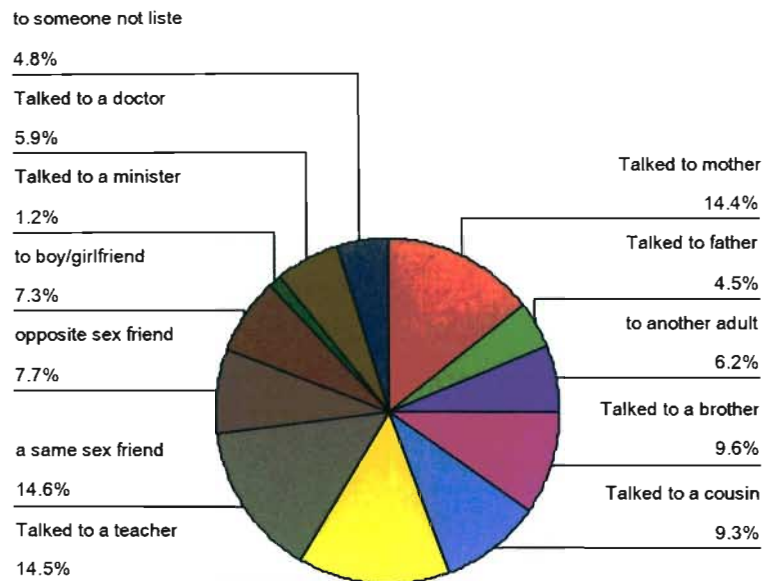


4.2.3 Who have you spoken to about sex?

One of the questions required the adolescents to indicate which person they had spoken to about sex, to see if adolescents do talk about sex and to which people they feel comfortable talking to.

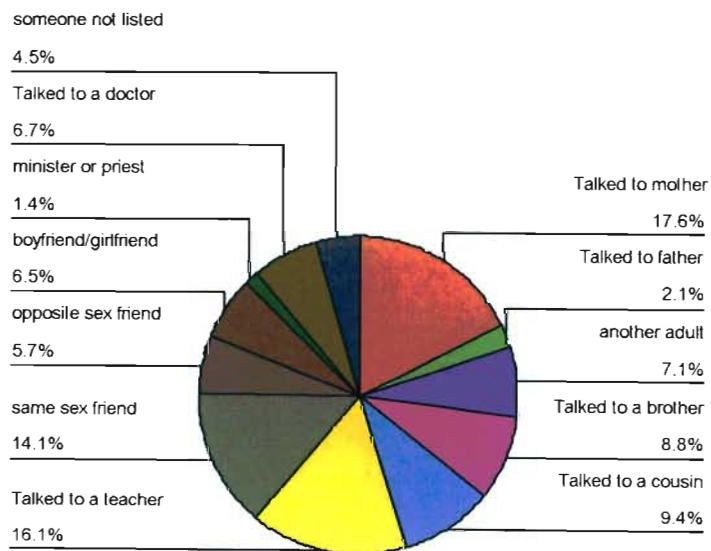
The following graph is an illustration of the findings to this variable. The results showed that on average most adolescents talk to friends of the same sex (14.6%, $n = 102$), their teachers (14.5%, $n = 101$), and their mothers (14.4%, $n = 101$) about sex. The person that is least likely for adolescents to talk to about sex is a minister of religion (1.2%, $n = 8$). Looking at the two genders separately revealed that the same three people (mothers, teachers and same sex friends) were still the most common across the two genders but this time in a different order. Most girls (17.6%) talked to their mothers about sex, followed by their teachers (16.1%) and lastly same sex friends (14.1%). Boys on the other hand talked mostly to same sex friends (15.1%) followed by their teachers (12.9%) and lastly their mothers (11.1%).

Boys and Girls across both grades

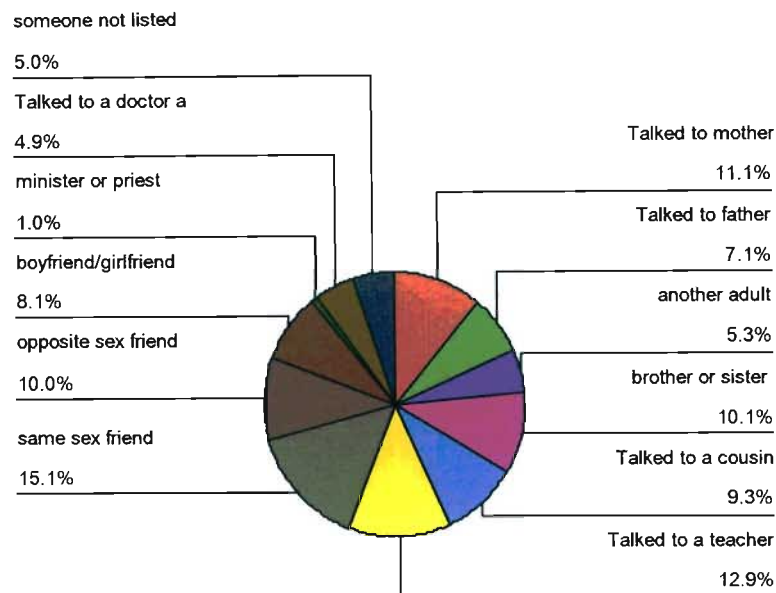


Looking at the two genders separately the following were noted:

Girls



Boys

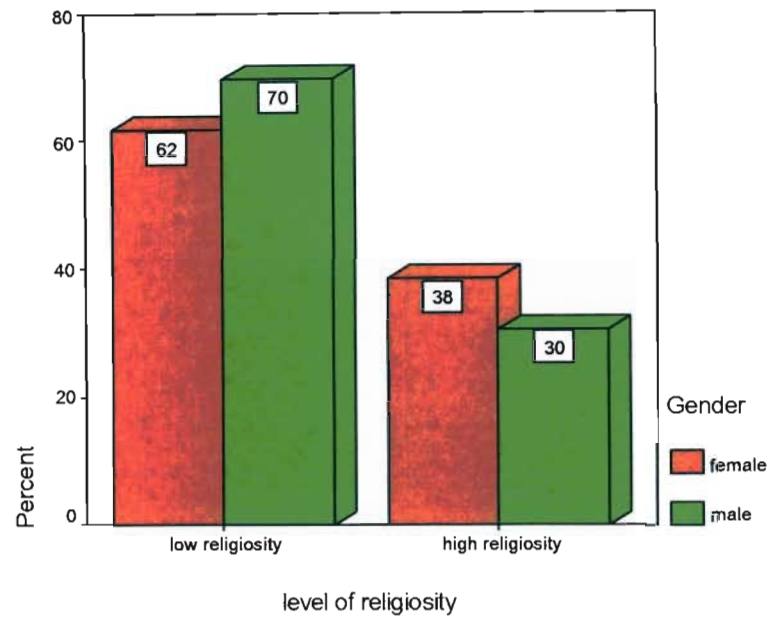


4.3 Level of religiosity:

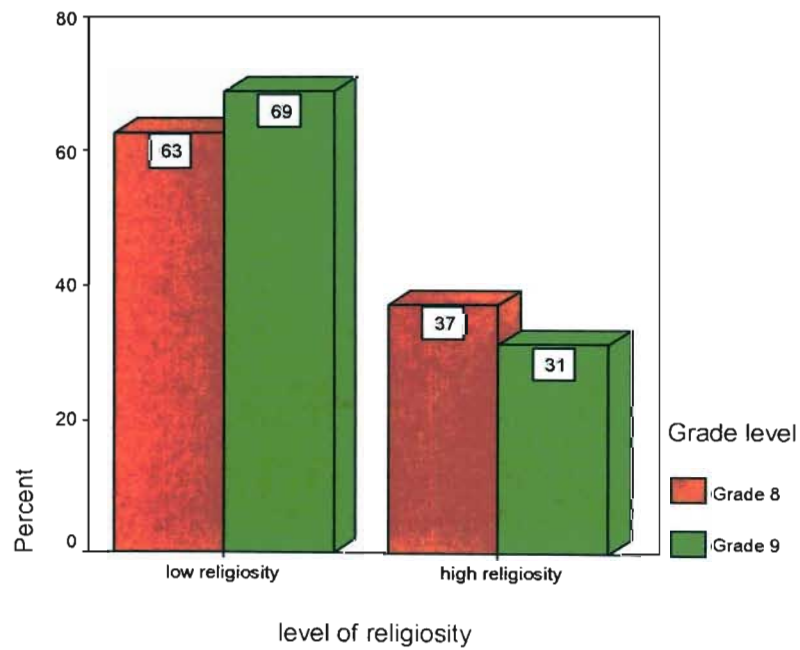
Gender and Grade differences:

On average girls were more religious than boys. Thirty-eight percent of girls ($n = 129$) were categorized as highly religious compared with 30% of boys ($n = 108$). Grade differences were also noted with grade 8 learners showing higher levels of religiosity (37%) compared to grade 9 learners (31%).

GENDER DIFFERENCES



GRADE DIFFERENCES



4B Data Analysis

Firstly data was captured onto an SPSS spreadsheet and afterwards cleaned through a process of doing range checks, where values that were out of the specified ranges were sought and surveys checked to confirm these values. In cases where respondents had entered these values onto their surveys this was recorded as missing data and treated as such. The first step in working with the data was conducting exploratory data analysis using the SPSS statistical program. This stage of data analysis involved running descriptives of the different variables and examining those to get a sense of what the data looks like. These are presented under the results section.

The second stage which was more of an in-depth analysis followed, and this involved looking closely at the relationships that existed amongst individual variables. Because the researcher was primarily interested in the relationships that existed amongst the variables, t-tests were conducted to examine any significant differences in means amongst the variables of interest such as the two genders and the two grades. ANOVAs were run to test for the differences in means across the different age groups. Correlations were then conducted to test for relationships between variables such as perceived parental monitoring and engagement in risky behaviours. The next step was to run cross-tabulations and chi-square tests in order to examine associations between specific variables such as gender and grade level at school and engagement in risky behaviours. Finally a regression analysis was conducted to identify factors that contribute to an individual's engagement in risky behaviours. The following are the results from these tests.

a) T-tests: The first stage of data analysis involved conducting *t*-tests to examine the differences in means between the two genders as far as the following are concerned: parental

monitoring, risky behaviour, level of religiosity and attitudes towards condom use.

According to Nunez (2002) the *t*-test is used to determine whether the means of two groups are sufficiently different to conclude that they come from two distinct populations. The following table illustrates the results of the *t*-tests across the two genders.

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
PMGSCALE	Equal variances assumed	.748	.387	-2.615	649	.009	-.1690	6.464E-02	-.2960	-4.21E-02
	Equal variances not assumed			-2.618	648.779	.009	-.1690	6.456E-02	-.2958	-4.23E-02
condom attitude scale	Equal variances assumed	3.157	.076	5.732	632	.000	.4242	7.400E-02	.2788	.5695
	Equal variances not assumed			5.731	625.311	.000	.4242	7.401E-02	.2788	.5695
risky behaviour scale	Equal variances assumed	55.960	.000	-11.565	693	.000	-1.2994	.1124	-1.5200	-1.0788
	Equal variances not assumed			-11.658	655.329	.000	-1.2994	.1115	-1.5183	-1.0805
level of religiosity	Equal variances assumed	2.289	.131	4.173	688	.000	.2502	5.996E-02	.1325	.3680
	Equal variances not assumed			4.181	687.976	.000	.2502	5.985E-02	.1327	.3678

As can be seen from the above table the difference in means between male and female adolescents on the perceived parental monitoring variable is a statistically significant one ($t = -2.615, p < 0.009$). This means that there are genuine differences in the population means of the two genders, which simply means that the two samples do not come from the same population. The same is also observed from the other variables; risky behaviour, level of religiosity and attitudes towards condom use ($t = -11.57; t = 4.17; t = 5.73, p < 0.0005$) respectively. All three variables revealed statistically significant differences across the two genders.

T-tests were also conducted to examine any significant differences between the two grades, also looking at the above four variables. The results showed that there were significant

differences across the two grades in terms of perceived parental monitoring ($t = -3.16$, $p < 0.002$) and risky behaviour ($t = -2.92$, $p < 0.004$), but that there were no significant differences between the two grades as far as attitudes towards condom use ($t = -.38$, $p < 0.702$) and level of religiosity ($t = 1.51$, $p < 0.132$) are concerned. The following table illustrates this.

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
PMGSCALE	Equal variances assumed	1.584	.209	-3.156	640	.002	-.2066	6.548E-02	-.3352	-.781E-02
	Equal variances not assumed			-3.162	639.701	.002	-.2066	6.535E-02	-.3349	-.783E-02
condom attitude scale	Equal variances assumed	2.960	.086	-.383	624	.702	-2.914E-02	7.613E-02	-.1786	.1204
	Equal variances not assumed			-.381	600.110	.703	-2.914E-02	7.651E-02	-.1794	.1211
risky behaviour scale	Equal variances assumed	2.025	.155	-2.923	685	.004	-.3570	.1221	-.5967	-.1172
	Equal variances not assumed			-2.926	683.154	.004	-.3570	.1220	-.5965	-.1174
level of religiosity	Equal variances assumed	.362	.548	1.508	680	.132	9.166E-02	6.078E-02	-2.77E-02	.2110
	Equal variances not assumed			1.513	679.980	.131	9.166E-02	6.057E-02	-2.73E-02	.2106

Since one of the questions this study aimed to answer was whether there would be gender and grade level differences in terms of the level of parental monitoring perceived by the adolescents, the above results answer this question. At this point one can only point to the differences but cannot explore the direction of these differences, in other words we cannot say which group receives more monitoring. The directions of the differences will be discussed later under the chi-square tests results.

b) Analysis of variance: In the second stage ANOVAS were conducted to test for differences across the different age groups as far as the above four behaviours and attitudes were concerned (parental monitoring, risky behaviour, attitudes towards condom use and level of

religiosity). One-way Analysis of variance (ANOVA) is a statistical technique that is appropriate for designs having one independent variable (in this case each of the four variables) but consisting of more than two groups (in this case the different age groups), (Durrheim, 2002). The overall results showed significant differences across the age groups in all four behaviours. For a full printout see Appendix C. Tukey's HSD statistic was calculated to examine which subsets have means that differ significantly from each other. According to Durrheim (2002) the Tukey's HSD is a post hoc test which is conducted to allow for multiple comparisons to determine which means are significantly different. The following diagram is an illustration of the results for one of the variables, attitudes towards condom use. The rest are all presented in the Appendix C.

condom attitude scale			
Tukey HSD ^{a,b}			
Age	N	Subset for alpha = .05	
		1	2
18 or older	4	2.0000	
17	35	2.6286	2.6286
16	83		3.1687
15	166		3.2470
14	204		3.3382
13 or younger	113		3.3451
Sig.		.284	.156

- Means for groups in homogeneous subsets are displayed.
- a. Uses Harmonic Mean Sample Size = 19.330.
 - b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

The results of the Tukey's HSD revealed that in terms of attitudes towards condom use, the 17 and 18-year old age groups subset is significantly different to the 13, 14, 15, 16 and 17-year old age groups subset. The second sub-set (13, 14, 15, 16 and 17-year olds) has higher means than the first sub-set, which indicates that this age group has more negative attitudes towards condom use than their older peers. This group can thus be labelled 'high risk' in terms of its attitudes towards condom use.

c) Correlations: The third stage of data analysis involved the calculation of the Pearson product-moment correlation coefficient to examine the relationships among the main variables in the study. These variables are perceived parental monitoring, risky behaviour, age, gender, grade, type of family the adolescent comes from, and level of religiosity of each individual adolescent. The following table presents the results of this test.

		Gender	Grade level	Age	level of religiosity	risky behaviour scale	pmg revised scale	TRADFAM
Gender	Pearson Correlation	1	.032	.154**	-.083*	.348**	-.066	-.018
	Sig. (2-tailed)	.	.407	.000	.030	.000	.093	.642
	N	695	680	681	692	695	651	684
Grade level	Pearson Correlation	.032	1	.377**	-.063	.093*	-.076	.114**
	Sig. (2-tailed)	.407	.	.000	.098	.015	.056	.003
	N	680	687	674	684	687	642	675
Age	Pearson Correlation	.154**	.377**	1	-.016	.161**	-.119**	-.117**
	Sig. (2-tailed)	.000	.000	.	.679	.000	.002	.002
	N	681	674	690	687	690	646	679
level of religiosity	Pearson Correlation	-.083*	-.063	-.016	1	-.136**	.045	-.012
	Sig. (2-tailed)	.030	.098	.679	.	.000	.249	.745
	N	692	684	687	702	702	655	690
risky behaviour scale	Pearson Correlation	.348**	.093*	.161**	-.136**	1	-.116**	.035
	Sig. (2-tailed)	.000	.015	.000	.000	.	.003	.353
	N	695	687	690	702	705	657	693
pmg revised scale	Pearson Correlation	-.066	-.076	-.119**	.045	-.116**	1	.038
	Sig. (2-tailed)	.093	.056	.002	.249	.003	.	.339
	N	651	642	646	655	657	657	647
TRADFAM	Pearson Correlation	-.018	.114**	-.117**	-.012	.035	.038	1
	Sig. (2-tailed)	.642	.003	.002	.745	.353	.339	.
	N	684	675	679	690	693	647	693

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

* . Correlation is significant at the 0.05 level (2-tailed).

Results showed higher levels of risky behaviour to be associated with an increase in grade level as well as age, ($r = .093$, and $r = .161$ at $p < 0.01$). Gender was inversely correlated with parental monitoring ($r = -.066$) although this relationship was not statistically significant. This means that boys were found to be less monitored than girls. Perceived parental monitoring was also negatively associated with risky behaviour ($r = -.116$, $p < 0.01$). Level of religiosity negatively correlates with involvement in risky behaviour ($r = -.136$ at

$p < 0.01$). It is important to note at this point that correlation does not imply causation (Lachenicht, 2002) and that one should thus be careful in interpreting the results. According to this author a strong correlation between two variables indicates a statistical relationship but not necessarily that one variable caused the other. We therefore cannot infer causation at this point, but can only point out to the demonstrated relationship between the variables in question.

d) Chi-square tests: Among the questions that this study aimed to answer was whether there would be gender and grade level differences in terms of parental monitoring. Chi-square tests were thus performed to examine associations between gender and level of parental monitoring as well as grade and level of parental monitoring. The following are the findings of this study.

Gender differences

Gender * revised pmg Crosstabulation

Count		revised pmg		Total
		low parental monitoring	high parental monitoring	
Gender	female	48	268	316
	male	70	266	336
Total		118	534	652

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3.499 ^b	1	.061		
Continuity Correction ^a	3.129	1	.077		
Likelihood Ratio	3.520	1	.061		
Fisher's Exact Test				.067	.038
Linear-by-Linear Association	3.494	1	.062		
N of Valid Cases	652				

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 57.19.

Symmetric Measures

	Value	Approx. Sig.
Nominal by Phi	-.073	.061
Nominal Cramer's V	.073	.061
N of Valid Cases	652	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

According to Lachenicht (2002) Cramer's V is a widely used measure of association between variables and when this statistic equals 0 it means there is no relation between two variables. This measure however is difficult to interpret probabilistically and it is at this point that the researcher may wish to use other measures of association. The odds ratio (Lachenicht, 2001) was calculated (by hand) at this point. Calculation of the odds ratio showed that one is 1.65 times more likely to receive high parental monitoring if they are a girl than if they are a boy. According to the same author, odds ratios have a definite advantage of being unaffected by sample sizes or by unequal rows or column sizes.

Grade differences

Grade level * revised pmg Crosstabulation

Count		revised pmg		Total
		low parental monitoring	high parental monitoring	
Grade	Grade 8	44	265	309
level	Grade 9	73	261	334
Total		117	526	643

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	6.256 ^b	1	.012	.014	.008
Continuity Correction ^a	5.755	1	.016		
Likelihood Ratio	6.322	1	.012		
Fisher's Exact Test					
Linear-by-Linear Association	6.246	1	.012		
N of Valid Cases	643				

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 56.23.

Symmetric Measures

		Value	Approx. Sig.
Nominal by	Phi	-.099	.012
Nominal	Cramer's V	.099	.012
N of Valid Cases		643	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

The above results display a significant association between grade and level of parental monitoring. Calculation of the odds ratio in this case indicated that participants were 1.46 times more likely to receive higher parental monitoring if they were in grade 8 than if they were in grade 9.

e) Regression Analysis

The aim of conducting a multiple regression statistical procedure in the present study was to identify factors that would predict engagement in risky behaviour. According to Hair, Anderson, Tatham & Black (1998) multiple regression is a statistical technique that can be used to analyse a relationship between a single dependent variable and several independent variables. The objective of this technique, according to the same authors, is to use the independent variables (IVs) whose values are known to predict the single dependent variable (DV) selected by the researcher. In other words, multiple regression finds out how the IVs should be combined so as to allow the best possible prediction of the DV. In addition to this function, multiple regression also affords the researcher a means of assessing the nature of the relationships between the independent variables and the dependent measure (Hair, et al., 1998).

The following variables were identified as possible predictor variables: gender, age, level of parental monitoring, level of religiosity, family conflict as well as family structure. The stepwise estimation approach was employed as a method that would allow the researcher to examine the contribution of each independent variable to the regression model. According to Hair, et al., (1998) sequential search approaches, of which the stepwise estimation approach is one, will maximise the predictive ability of the regression model. Previously on conducting exploratory data analysis it had been discovered that some variables, such as the dependent variable risky behaviour, were not normally distributed. To correct for this, the variable had to be transformed (using a square root transformation) so that the assumption of normality would be met before running the multiple regression procedure. Also variables that were non-metric, such as gender and type of family, were re-coded into dummy variables. Transforming the data allows the researcher to modify either the dependent or

independent variables so as to improve or modify the relationship between the independent and dependent variables and also to allow the use of non-metric variables in the regression variate (Hair, et al., 1998). Once the transformations had been applied the regression procedure was then conducted. The following table depicts the results of the stepwise regression model with gender, age and level of religiosity as the independent variables and risky behaviour as the dependent variable.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.432 ^a	.186	.185	.74267
2	.455 ^b	.207	.204	.73364
3	.468 ^c	.219	.215	.72898

a. Predictors: (Constant), gender dummy variables

b. Predictors: (Constant), gender dummy variables, Age

c. Predictors: (Constant), gender dummy variables, Age, level of religiosity

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.530	.046		11.630	.000
	gender dummy variables	.710	.063	.432	11.280	.000
2	(Constant)	.299	.075		3.975	.000
	gender dummy variables	.675	.063	.410	10.731	.000
	Age	9.515E-02	.025	.147	3.842	.000
3	(Constant)	.560	.118		4.736	.000
	gender dummy variables	.659	.063	.401	10.513	.000
	Age	9.387E-02	.025	.145	3.814	.000
	level of religiosity	-.188	.066	-.108	-2.851	.005

a. Dependent Variable: SQRTTB

As can be seen from the results table gender was entered first in the model. This variable proved to be the most powerful predictor of involvement in risky behaviour. Gender was followed by age as the second most powerful predictor of risky behaviour even though this variable only added 2% variance in the dependent variable. The third most powerful

predictor of involvement in risky behaviour was level of religiosity, which also did not add much variance to the dependent variable ($\pm 1\%$).

The final F-statistic in the model is significant at $p < 0.01$ ($F = 51.716$) (See appendix D for the complete output), and this means that our model accounts for a statistically significant proportion of the variation in risky behaviour among the school-going youth. Also looking at the coefficients table shows that the partialled effects of each variable in the model (gender, age and religiosity) are statistically significant with $t = 11.280$ at $p < 0.0005$ for gender, $t = -3.842$ at $p < 0.0005$ for age and $t = -2.851$ at $p < 0.005$ for level of religiosity.

CHAPTER 5: DISCUSSION

Perceived parental monitoring: gender and grade level differences

The results of this study showed more girls (85%) perceiving themselves to be receiving high parental monitoring than boys (79%). Chi-square tests also revealed both gender and grade level differences through the calculation of odds ratios which showed teenagers to be almost twice (1.65 times) as likely to perceive high parental monitoring if they were a girl than if they were a boy. This confirms the findings of previous research (Flannery, et al., 1994, Jacobson & Crockett, 2000, & Li et al., 2000) where it was demonstrated that girls perceive higher levels of parental monitoring compared to boys. This is also not a surprising finding considering the fact that in African culture boys are socialised differently to girls, who are not encouraged to develop independence at an early age but are closely monitored and the parents are stricter on them than on their brothers. As a result of this practice boys become less monitored than girls, which leaves them with ample time to socialise with deviant peers, who in return, may influence them to engage in risky behaviours. Research has demonstrated similar parenting practices in other cultures (Barry, Bacon and Child, 1957, cited in McCandless, 1970) where girls are subjected to stricter rules at home than boys.

When the two grade levels were compared, it was found that perceived parental monitoring decreases with age, with participants in grade 8 perceiving more monitoring than participants in grade 9 (86% to 78%). Calculation of odds ratios also indicated that participants are almost one and a half times (1.46) more likely to perceive high parental monitoring if they are in grade 8 than grade 9. Li et al. (2000), Flannery et al. (1994), and Jacobson & Crockett (2000) found similar findings in terms of the relationship between age and / or grade level at school and perceived parental monitoring. According to Li and colleagues (2000) what this

reflects is that as children age, their psychosocial developmental tasks include separation from parents, which results in the development of independence. As a result of this adolescents spend more time away from home socialising with their peers, which results in less direct supervision from their parents and increases opportunities to engage in risky behaviours.

The relationship between perceived parental monitoring and engagement in risky behaviours

The Pearson product-moment correlation coefficient was calculated to examine the relationship between perceived parental monitoring and engagement in risky behaviours. This showed perceived parental monitoring to be inversely correlated with engagement in risky behaviours. This means that the more teenagers perceive themselves to be monitored by their parents, the less likely they are to engage in risky behaviours. This was an expected finding considering that previous research has found similar results (DiClemente, et al., 2001; Kerr & Stattin, 2000, Li, et al., 2000). An explanation of this relationship is provided by Kerr and Stattin (2000) in their study where they argue that perceived parental monitoring minimises the adolescent's contact with deviant peers and delinquency-promoting circumstances. In this way then perceived parental monitoring acts as a protective factor according to Jessor's conceptual framework of adolescent risk and protective factors (Jessor, 1993). This explains why an increase in parental monitoring tends to lead to a decrease in the adolescent's engagement in risky behaviours.

Even though perceived parental monitoring has been shown to decrease engagement in risky behaviours, multiple regression analyses employed by this study did not show this variable to be one of the primary predictors of engagement in risky behaviour. Instead gender, age and

level of religiosity were shown to be the three main predictors of engagement in risky behaviours among this sample. This could mean that even though perceived parental monitoring plays a role in preventing risky behaviour from occurring, on its own it does not predict involvement in risky behaviours, but rather acts as one of the protective factors, that provides an adolescent with an environment that does not promote deviant behaviour. Similar findings were obtained by Flannery, et al. (1994) who suggests that the impact of perceived parental monitoring is not direct but rather mediated by other interpersonal variables.

Risky behaviours

Alcohol

Forty-one percent of the youth in this study indicated that they have used alcohol. Gender differences were also noted with 51% of the boys in the study indicating that they had used alcohol compared to 32% of the girls. Boys also start drinking earlier than girls do, at around eight years of age (4% of boys and 3% of girls). This is an expected finding considering the fact that the above results on perceived parental monitoring demonstrated that boys are less monitored than girls and the fact that this is supported by existing literature (Flisher, Ziervogel, Chalton, Leger & Robertson, 1993; Myers & Parry, 2002b). When boys are less supervised this leaves them with ample opportunity to socialise with deviant peers and to be exposed to delinquency-promoting situations. As previous research has demonstrated the influence that peers have over adolescents (Sutherland, 2002; Metzler, Noell, Biglan, Ary & Smolkowski, 1994), it is not surprising that teenagers who have more time to socialise with their peers would engage more in risky behaviours, alcohol usage being one of them.

Age and grade level differences were also noted from the results of this study. Similar findings have been demonstrated in previous research by Sutherland (2002) who found an age-related increase in alcohol use, with most teenagers starting to drink around age 13. The majority of boys in the current study started drinking around age 14, with the majority of girls starting at age 13. A possible explanation for this could be the fact that girls mature earlier and, as a result, associate with older peers who may be influencing them or putting them under pressure to start drinking alcohol. Visser and Moleko (2002) found that among primary school-going youth they surveyed, 87% thought it was not acceptable behaviour for a young person to use alcohol. In this study it was also demonstrated that those who do not think their peers are using alcohol are also less likely to use the substance themselves. This is an indication that the perceived group norms shift as soon as adolescents move on to high school and observe their peers starting to drink alcohol. This could explain the age-related increase in alcohol use which coincides with the move to high school where they may begin to believe that social norms and peer beliefs are shifting and that it is now acceptable behaviour for one to start drinking.

Dagga use

Dagga was the most common substance of abuse among this sample of school-going youth with 20% of the boys and three percent of the girls indicating that they have used it. Similar findings were obtained by Myers and Parry (2002a) in their study across three sites in South Africa. A possible explanation for this could be the fact that dagga is cheap compared to most drugs and easily accessible in the townships compared to other substances. Dagga use also increases with grade level with more teenagers in grade 9 using the substance than teenagers in grade 8 (11% to 12%). In the Visser and Moleko study (2002) which was conducted among primary school learners, 91 % of the participants thought it was not right

for people of their age to use this substance which explains the low percentage of use in this sample. However, as the adolescent moves on to high school and they start experimenting with drugs, it is therefore most likely that their drug of choice would be dagga bearing in mind affordability and accessibility factors.

White pipe

White pipe is the least common drug among school-going youth with only five percent of the boys and two percent of the girls in this sample indicating use of the drug. As far as grade level differences are concerned, white pipe appears to be the only drug that decreases in use with advancing school grade level. Four percent of grade 8 learners in this sample have used the drug compared with 2.5% of grade 9 learners. A possible explanation for this could be that white pipe is losing popularity among older youth as they begin to experiment with other newer drugs such as “Ecstasy”, or alternatively the issue of affordability comes to the fore as adolescents find that they cannot afford this drug. Myers and Parry (2002a) estimated the cost of Mandrax, the main ingredient of white pipe, to be between R30 and R40 per tablet in 2000. Dagga on the other hand was estimated at around R1 to R2 per joint. One can therefore conclude that using white pipe and maintaining this habit is a luxury that ordinary high school youth may not be able to afford, especially youth from lower income families such as was part of the current study.

Inhalants

Inhalants appear to be more common in schools than white pipe but less common than dagga. Thirteen percent of the boys and seven percent of the girls in this study indicated use of these substances. A possible reason for this could be due to the fact that inhalants are easily

available, one can buy glue and sprays at any café, and these are also very cheap substances compared to other drugs such as white pipe, cocaine and others.

Sexual activity

Fifty-five percent of the boys and 15% of the girls in the study have engaged in sexual activity. Boys also start having sex earlier than girls with 19% of those who are sexually active, indicating having started around the age of eight, and most girls (23% of the sexually active) waiting until they are about fourteen. These are expected findings considering the fact that social norms encourage young men to show sexual bravado, defiance of risk and high levels of sexual activity (Kelly & Parker, 2000 in Eaton, et al., 2003). The results from this study also confirm the findings of other South African studies, (LoveLife, 2001; Eaton, et al., 2003).

This study also found sexual activity to increase with advancing age and / or grade level. Thirty-nine percent of grade 9 learners in this sample have had sex compared with 30% of grade 8 learners. Similar findings were advanced by Eaton and colleagues (2003) who also speculated that at least 50% of young people in South Africa are sexually active by age 16 and that probably 80% are by the time they reach age 20. Poverty and lack of recreational facilities could be some of the factors that contribute to the increase in sexual activity (Eaton et al., 2003). When this is the case young people tend to use sex as entertainment because there is nothing else for them to do in the under-resourced areas they live in.

Contraception / Method of protection

Fifty-six percent of the boys and 50% of the girls in this study did not use any form of contraception during their first sexual encounter. The figures of those who did not use any contraception on their last sexual encounter are 46% for boys and 43% for girls. Similar

results were obtained by other South African researchers (LoveLife, 2001 & Eaton, et al., 2003). According to Lovelife half of the sexually experienced youth indicate that they do not always use contraception, and boys are less likely to report use than girls. Among possible explanations for these gender differences could be that, fewer boys than girls indicate contraception use simply because they are not directly involved in the use of these substances, especially with oral contraception, but rather that their girlfriends are. It is also possible that boys view contraception as the girl's responsibility and therefore assume that the girl would take care of such matters in a relationship.

Of note however is the fact that even though teenagers are not using contraception consistently, contraception use is nonetheless increasing across both genders. A possible explanation for this could be that the first sexual encounter is usually unplanned which means that the adolescent did not plan in advance to use or carry contraception with him / her for when it happens. The following sexual encounters would therefore be more planned and by that time the adolescent would have made up his / her mind to be more careful and to use contraception.

Attitudes towards condom use

Eighty-three percent of the girls displayed negative attitudes towards condom use. The figure for boys was 70%. Contrasting findings emerged from the LoveLife study (2001) where more boys (68%) than girls (54%) displayed a negative attitude towards condom use. One of the barriers to condom use that has been identified by previous research is low perception of risk amongst the youth (Karnell, 2001). Karnell further suggested that this low perception of risk among youth could be due to lack of direct experience with someone dying of AIDS, which could cause the youth to think that the disease is not as prevalent as it is.

Other barriers to condom use include embarrassment to purchase or go to the clinic to get them, perceived loss of pleasure associated with condom use, and myths surrounding condom use, such as that condoms break or slip inside the woman's vagina (Eaton, et al., 2003). The myth that condoms 'disappear' inside the girl's vagina could explain why more girls than boys would display negative attitudes towards condom use, especially if this is a widely held myth.

Grade level differences were also noted with 75% of grade 8 learners and 77% of grade 9 learners displaying negative attitudes towards condom use. A possible explanation for this could be that older youth, who are socialising with older people and also due to dire economic circumstances at home, (which is a characteristic of this sample), are forced to seek financial assistance from older boyfriends (in the case of girls), and as a result sex happens on the man's terms, which is usually without a condom (Eaton, et al., 2003). A result of this would be that the older youth would tend to display more negative attitudes towards condom use than the younger youth. According to LoveLife (2001) 16% of sexually experienced girls say they have had sex in exchange for money, food or other gifts. In this way poverty is seen to be playing a role as a risk factor because it acts as a barrier to condom use.

Level of religiosity

T-tests revealed statistically significant differences between the two genders ($t = 4.173, p < .000$) in terms of the level of religiosity. Regnerus (2003) found in the literature that he reviewed on the relationship between religion and positive adolescent outcomes, that most girls tended to be more religious than boys. There were also differences in terms of grade level but these were not statistically significant ($t = 1.508, p < .132$). Correlation tests showed level of religiosity to have an inverse relationship with engagement in risky behaviours,

meaning that the more religious the teenager is, the less likely they are to engage in risky behaviours. These results confirm those of Nicholas & Durrheim (1995, cited in Eaton, 2003) where they found religious youth to be more likely to postpone sexual activity and also to have fewer sexual partners. The regression model also showed the level of religiosity to be the second most powerful predictor of engagement in risky behaviour. It is possible that being religious encourages one to live a life that closely follows the commands of the Bible of living a sin-free life. This would mean that one does not engage in those activities that may be regarded as sinful such as having sex before marriage, drinking and abusing drugs. This would thus explain the inverse relationship between level of religiosity and involvement in risky behaviours. According to Regnerus (2003) religion acts as a protective factor and thus promotes ideal outcomes in adolescents by encouraging the adoption of healthy behaviours in youth. In the same review he found that youth who were more religious were also more likely to exercise more frequently, eat better and generally adopt a healthier lifestyle as compared to the youth that were less or not at all religious.

Factors that predict engagement in risky behaviours

The stepwise multiple regression procedure was employed as a means of identifying factors that could predict engagement in risky behaviours. Among the variables entered were gender, age, level of perceived parental monitoring, family conflict, type of family and attitudes towards condom use. From the regression model output gender proved to be the most powerful predictor of involvement in risky behaviour. Adolescent gender was also a significant predictor of deviant behaviour in an earlier study by Forehand, Miller, Dutra & Chance (1997). This variable was followed by the age of the adolescent as the second most powerful predictor of risky behaviour even though this variable only added 2% variance in the dependent variable. The third most powerful predictor of involvement in risky behaviour

was the level of religiosity but this too did not add much variance to the dependent variable (+- 1%).

In our model age has a positive relationship with the dependent variable, risky behaviour.

This confirms the results of the previous tests, such as the chi-square and Pearson r where age was shown to be positively correlated with engagement in risky behaviour. This means that the older the teenager becomes the more likely they are to engage in risky behaviours.

However, gender and level of religiosity are shown to have a negative relationship with involvement in risky behaviours. Again this confirms the results of the Pearson r and the chi-square tests. This means that a male teenager is more likely to be involved in risky behaviour than a female teenager. The results also demonstrate that the less religious a teenager is, the more likely they are to become involved in risky behaviours.

Finally, level of perceived parental monitoring, family type, as well as presence of conflict within the family, and attitudes towards condom use did not come up in the regression model as predictors of involvement in risky behaviours. A possible explanation for why perceived parental monitoring did not predict involvement in risky behaviours is, according to Jessor (1993), the fact that parental monitoring acts as a protective factor that moderates risk influence on problem behaviour during adolescence. According to Jessor this factor reduces the potential for drug abuse and other risky behaviours but on its own, does not predict involvement in such.

A possible reason for why family conflict and type of family did not predict engagement in risky behaviours could be the fact that, even though these two variables show an inverse relationship with involvement in risky behaviours, their influence is not so powerful and direct as to predict risky behaviour but that they do present one with an environment which

could lead to risky behaviour given that there are other risk factors present. These risk factors could be individual, such as one's personality, or socio-economic such as poverty, a factor whose influence has been discussed at length in the previous discussion.

CHAPTER 6: ETHICAL ISSUES

Informed consent and confidentiality

Because the participants of this study were minors and also because of the sensitive nature of the questions that the youth were required to answer, a few ethical issues, particularly around the issues of informed consent and the participants' autonomy were faced by the researcher. The ethical dilemma faced by the researcher was the non-return of consent forms (See Procedure section under Method, chapter 3) which resulted in the researcher using the passive method of consent to participate in the study.

The APA ethics code Section 6.11 indicates that informed consent may be waived when research involves the use of anonymous questionnaires (APA, 1992). Researchers such as Hughes and Gutkin (1995, cited in Jason, Pokorny, & Katz, 2001) do not agree with this since they believe some studies may ask highly sensitive questions that may cause emotional stress, and that anonymous questionnaires do not protect those subjects from such stress, particularly when parental consent was not obtained in the first place. The researcher is obliged under these conditions to ensure the protection and look after the welfare of the participants. One way for the researcher to do this is by explaining the study in detail to the participants as well as alerting them to any possible risks of participation so that, should they choose to take part, they would have been fully informed as to what to expect from their participation in the study. Participants should also be made aware that they are free to leave at any stage of data collection should they experience any discomfort, and that they will not be punished for doing so (APA, 1992; Greig & Taylor, 1999). The researcher in the present study made sure all the above requirements were met whilst also using anonymous questionnaires to ensure confidentiality, and explained to the participants which people will have access to the questionnaires (supervisor, etc.). According to Greig and Taylor (1999)

research subjects need to be made aware that research may be published and who will have access to it.

Passive consent as a method thus adopted by this study, has been endorsed by some researchers for various reasons. One of these is that it has been noted that active consent procedures introduce bias in a study by negatively affecting the response rate (Biglan & Ary, 1985 cited in Jason, 2001). In the same study it was demonstrated that a certain type of parent reads consent forms, signs them and makes sure they are returned to school.

Anderman (1995 cited in Jason, 2001) found that subjects with written consent were more likely to be white, living with both parents, having a grade point average of B and above, and involved in extra-curricular activities in school. In the Jason paper there was debate that many high-risk youth are unlikely to have parents who provide schools with written consent for their children to participate in research, thus requirements for written consent may prevent high-risk takers from taking part in research that aims to assess the same issues of risk-taking behaviour. Another possible reason for the non-return of consent forms in this case could be the fact that the consent forms were not translated into isiZulu which would have contributed to the failure on the part of some parents to sign and return them to school timeously. In future the researcher will have to ensure that the consent forms are translated into the local mother tongue of the participants.

Having presented the above issue the researcher hopes that the use of passive consent by this study was more beneficial than harmful and that there is a lesson here for future researchers to consider all the relevant facts before embarking on a study of a similar nature.

Benefit to participants

The aim of all research should be to bring benefit and minimise risk to the participants. This study did not bring any direct benefit to the participants but it is hoped that the findings from it would be used by other researchers to design intervention strategies that will help combat risky behaviour in youth.

CHAPTER 7 LIMITATIONS OF THE STUDY & IMPLICATIONS FOR FUTURE RESEARCH

The following were the limitations of this study:

- The study relied on self-report from the participants on the behaviours they participate in, as well as on the level of parental monitoring that they perceive themselves to be receiving. For this reason one cannot be certain that the information the participants gave was accurate. It is possible for some individuals, especially minors, to under-report on their behaviours for fear of punishment if they should be caught. Some individuals may exaggerate or over-report their behaviours because they are afraid of being thought not normal if they do not engage in the kinds of behaviours that their peers engage in.
- Another limitation of this study is the fact that it used a sample of school-going youth which was further limited by including only grades 8 and 9 learners, which means that the results cannot be generalised to the whole population of youth. It is possible that the youth that attends school is different to the youth that stays at home or are already holding full-time or even part-time employment.
- The third limitation of the study is that it is a cross-sectional design, which means that one cannot use the data thereof to examine underlying causal structures, and etiological processes that lead to engagement in risky behaviours.
- Lastly the questionnaire used in this survey was written in the second language of the participants and it is possible therefore that some of the responses given were, due in part, to failure to understand the question(s) in the first place. Although in the design stage the questionnaire was translated into Zulu and back translated into English to make it easier to understand to a person who speaks English as a second language, the researcher is aware that this could have compromised the validity of this instrument. Also participants were encouraged to ask if they did not understand the questions but even though this was

the case the researcher cannot be certain that everyone who did not understand, asked for clarification.

The results from this study should thus be interpreted with caution bearing in mind the above limitations of the study.

Implications for future research

Having discussed the limitations of this study it could be suggested that future research needs to include youth that are out of school to make the results more generaliseable to the whole population of youth. Random sampling procedures using both out-of-school and still-at-school youth would further ensure the generaliseability of the results obtained from such a study. A longitudinal design would also allow researchers to determine the long-term relationship between perceived parental monitoring and involvement in risky behaviours.

This study failed to investigate parental monitoring through the reports of other people in the adolescent's life such as parents, siblings and / or teachers. This could be achieved by interviewing those people who are involved in the adolescent's life by using the same set of questions on the perceived parental monitoring scale that the adolescent himself or herself answered, and comparing those responses to the ones given by other respondents. Future research might benefit from employing triangulation procedures, such as employing different methods of data collection like observations and / or parent interviews. Although observations might be costly and also time consuming, in a longitudinal study a few adolescents could be tracked over a period of time, and the interactions between them and their parents in terms of parental monitoring, observed and noted. These could then be analysed against the level of involvement in risky behaviours of those adolescents.

Finally, what the current study has demonstrated is the wide range of risky behaviours that adolescents engage in, as well as some of the factors that increase the likelihood that youth will engage in these behaviours. Intervention strategies should therefore target the youth both in and out of school and teach them about the consequences of engaging in such behaviours. Parents can also benefit from any intervention strategies that aim to address these problems through equipping them with monitoring skills and training them on how to increase monitoring without being intrusive in their adolescents' lives.

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APPENDIX A

PARENTAL MONITORING AND RISK-TAKING BEHAVIOUR IN ADOLESCENTS

Instructions: **PLEASE BE HONEST. YOUR ANSWERS ARE COMPLETELY CONFIDENTIAL. DO NOT PUT YOUR NAME ON THIS PAPER.**

Marking Instructions: Please mark your answers like these samples:

WHAT IS YOUR FAVOURITE COLOUR? (Choose one)

- | | |
|---|-------------------|
| 1 | BLUE |
| 2 | GREEN |
| 3 | RED |
| 4 | ORANGE |
| 5 | NONE OF THE ABOVE |

OR:

WHAT SUBJECTS DO YOU ENJOY? (Tick as many as you agree with)

- | | |
|-------------------------------------|------------------|
| <input checked="" type="checkbox"/> | ENGLISH |
| <input checked="" type="checkbox"/> | MATHS |
| <input type="checkbox"/> | PHYSICAL SCIENCE |
| <input checked="" type="checkbox"/> | LIFE ORIENTATION |
| <input type="checkbox"/> | COMMERCE |

If you don't understand how to mark your paper, please ask the supervisor.

Now you are ready to begin!

1. WHAT IS YOUR SEX?

- | | |
|---|--------|
| 1 | FEMALE |
| 2 | MALE |

2. WHAT GRADE ARE YOU IN? (Choose one)

- | | |
|---|----------|
| 1 | GRADE 8 |
| 2 | GRADE 9 |
| 3 | GRADE 10 |
| 4 | GRADE 11 |
| 5 | GRADE 12 |

3. WHAT GROUP DO YOU BELONG TO? (Choose one)

- | | |
|---|------------------------------|
| 1 | ZULU |
| 2 | XHOSA |
| 3 | SOTHO |
| 4 | OTHER BLACK AFRICAN GROUP |
| 6 | WHITE |
| 7 | COLOURED |
| 8 | INDIAN |
| 9 | OTHER GROUP NOT LISTED ABOVE |

4. HOW OLD ARE YOU NOW? (Choose one)

- | | |
|---|---------------|
| 1 | 13 OR YOUNGER |
| 2 | 14 |
| 3 | 15 |
| 4 | 16 |
| 5 | 17 |
| 6 | 18 OR OLDER |

5. WHICH OF THE FOLLOWING ADULTS DO YOU LIVE WITH, ALL OR MOST OF THE TIME? (Tick as many as you agree with)

- | | |
|--------------------------|---|
| <input type="checkbox"/> | MOTHER |
| <input type="checkbox"/> | FATHER |
| <input type="checkbox"/> | STEPMOTHER |
| <input type="checkbox"/> | STEPFATHER |
| <input type="checkbox"/> | AUNT OR UNCLE |
| <input type="checkbox"/> | GRANDPARENT(S) |
| <input type="checkbox"/> | OLDER BROTHER OR SISTER |
| <input type="checkbox"/> | OTHER ADULT(S) |
| <input type="checkbox"/> | LEGAL GUARDIAN(S) (INCLUDING FOSTER PARENTS OR ORPHANAGE) |

6. WHAT IS THE HIGHEST LEVEL OF SCHOOLING YOUR MOTHER COMPLETED? (Choose one)

- | | |
|---|--|
| 1 | DIDN'T GO TO SCHOOL |
| 2 | SOME PRIMARY SCHOOL |
| 3 | COMPLETED PRIMARY SCHOOL |
| 4 | SOME SECONDARY SCHOOL |
| 5 | MATRIC |
| 6 | SOME VARSITY, COLLEGE OR TECHNICAL SCHOOL |
| 7 | GRADUATED FROM VARSITY OR TECHNICAL SCHOOL |
| 9 | I DON'T KNOW |

7. HOW CLOSE DO YOU FEEL TO YOUR MOTHER? (Choose one)

- | | |
|---|-----------------------|
| 1 | NOT AT ALL |
| 2 | VERY LITTLE |
| 3 | SOMEWHAT |
| 4 | QUITE A BIT |
| 5 | VERY MUCH |
| 9 | MY MOTHER PASSED AWAY |

8. HOW MUCH DO YOU THINK YOUR MOTHER CARES ABOUT YOU? (Choose one)

- | | |
|---|--------------|
| 1 | NOT AT ALL |
| 2 | VERY LITTLE |
| 3 | SOMEWHAT |
| 4 | QUITE A BIT |
| 5 | VERY MUCH |
| 6 | I DON'T KNOW |

9 NOT APPLICABLE

9. WHAT IS THE HIGHEST LEVEL OF SCHOOLING YOUR FATHER COMPLETED? (Choose one)

- 1 DIDN'T GO TO SCHOOL
- 2 SOME PRIMARY SCHOOL
- 3 COMPLETED PRIMARY SCHOOL
- 4 SOME SECONDARY SCHOOL
- 5 MATRIC
- 6 SOME VARSITY, COLLEGE OR TECHNICAL SCHOOL
- 7 GRADUATED FROM VARSITY OR TECHNICAL SCHOOL
- 9 I DON'T KNOW

10. HOW CLOSE DO YOU FEEL TO YOUR FATHER? (Choose one)

- 1 NOT AT ALL
- 2 VERY LITTLE
- 3 SOMEWHAT
- 4 QUITE A BIT
- 5 VERY MUCH
- 9 MY FATHER PASSED AWAY

11. HOW MUCH DO YOU THINK YOUR FATHER CARES ABOUT YOU? (Choose one)

- 1 NOT AT ALL
- 2 VERY LITTLE
- 3 SOMEWHAT
- 4 QUITE A BIT
- 5 VERY MUCH
- 6 I DON'T KNOW
- 9 NOT APPLICABLE

12. HOW MANY PEOPLE, INCLUDING YOU, LIVE IN YOUR HOUSEHOLD?

- 1 1
- 2 2
- 3 3
- 4 4
- 5 5
- 6 6
- 7 7
- 8 8 OR MORE

PLEASE ANSWER HOW MUCH YOU AGREE OR DISAGREE WITH THE FOLLOWING STATEMENTS:

13. MY PARENTS OR GUARDIANS KNOW WHERE I AM AFTER SCHOOL.

- 1 AGREE A LOT
- 2 AGREE A LITTLE
- 3 DON'T AGREE OR DISAGREE
- 4 DISAGREE A LITTLE

5 DISAGREE A LOT

14. I TELL MY PARENTS OR GUARDIANS WHO I AM GOING TO BE WITH BEFORE I GO OUT.

1 AGREE A LOT

2 AGREE A LITTLE

3 DON'T AGREE OR DISAGREE

4 DISAGREE A LITTLE

5 DISAGREE A LOT

15. WHEN I GO OUT AT NIGHT, MY PARENTS OR GUARDIANS KNOW WHERE I AM.

1 AGREE A LOT

2 AGREE A LITTLE

3 DON'T AGREE OR DISAGREE

4 DISAGREE A LITTLE

5 DISAGREE A LOT

16. MY PARENTS OR GUARDIANS THINK IT IS IMPORTANT TO KNOW WHO MY FRIENDS ARE.

1 AGREE A LOT

2 AGREE A LITTLE

3 DON'T AGREE OR DISAGREE

4 DISAGREE A LITTLE

5 DISAGREE A LOT

17. MY PARENTS OR GUARDIANS KNOW HOW I SPEND MY MONEY.

1 AGREE A LOT

2 AGREE A LITTLE

3 DON'T AGREE OR DISAGREE

4 DISAGREE A LITTLE

5 DISAGREE A LOT

THE NEXT FEW QUESTIONS ASK YOU ABOUT YOUR RELIGIOUS PRACTICES:

18. HOW OFTEN DO YOU ATTEND RELIGIOUS SERVICES? (Choose one)

1 NEVER

2 RARELY

3 ONCE OR TWICE A MONTH

4 ALMOST ONCE A WEEK OR MORE

19. HOW IMPORTANT IS RELIGION IN YOUR LIFE? (Choose one)

- 1 EXTREMELY IMPORTANT
- 2 VERY IMPORTANT
- 3 SOMEWHAT IMPORTANT
- 4 A LITTLE IMPORTANT
- 5 NOT AT ALL IMPORTANT

20. MANY CHURCHES AND OTHER PLACES OF WORSHIP HAVE SPECIAL ACTIVITIES FOR TEENAGERS, SUCH AS YOUTH GROUPS, BIBLE CLASSES OR CHOIR. IN THE PAST 12 MONTHS, HOW OFTEN DID YOU ATTEND SUCH YOUTH ACTIVITIES?

- 1 NEVER
- 2 RARELY
- 3 ONCE OR TWICE A MONTH
- 4 ONCE A WEEK OR MORE

THE NEXT FEW QUESTIONS ASK ABOUT YOUR EXPERIENCES WITH ALCOHOL AND DRUGS:

21. HAVE YOU EVER USED ALCOHOL?

- 1 Yes
- 0 No

22. IF YOU NEVER USED ALCOHOL BEFORE, WHY NOT? (Choose the answer that fits best)

- 1 I NEVER HAD THE CHANCE
- 2 I DO NOT LIKE WHAT IT DOES TO PEOPLE
- 3 I BELIEVE IT IS WRONG TO USE IT
- 4 OTHER REASON
- 5 NO REASON
- 9 I HAVE USED ALCOHOL

23. HAVE YOU EVER USED DAGGA?

- 1 Yes
- 0 No

24. HAVE YOU EVER USED ECSTASY?

- 1 Yes
- 0 No

25. HAVE YOU EVER USED "WHITE PIPE" (MANDRAX MIXED WITH DAGGA)?

- 1 Yes
- 0 No

26. HAVE YOU EVER USED METHYLHYDRATE PILLS?

- 1 Yes
- 0 No

27. HAVE YOU EVER USED INHALANTS? (PAINTS, SPRAY, GLUE, OR PETROL)

- 1 Yes
- 0 No

28. AT WHAT AGE DID YOU FIRST DRINK ALCOHOL? (Choose one)

- 0 I HAVE NEVER USED ALCOHOL
- 1 8 OR YOUNGER
- 2 9
- 3 10
- 4 11
- 5 12
- 6 13
- 7 14
- 8 15
- 9 16
- 10 17
- 11 18 OR OLDER

29. IN THE LAST 14 DAYS, HOW MANY TIMES HAVE YOU USED ALCOHOL? (Choose one)

- 1 ZERO
- 2 1 TO 2
- 3 3 TO 5
- 4 6 TO 9
- 5 10 TO 19
- 6 20 TO 39
- 7 40 OR MORE

30. IN THE LAST YEAR, HOW MANY TIMES HAVE YOU USED ALCOHOL? (Choose one)

- | | |
|---|-------------|
| 1 | ZERO |
| 2 | 1 TO 50 |
| 3 | 26 TO 100 |
| 4 | 100 TO 200 |
| 5 | 201 TO 424 |
| 6 | 425 TO 899 |
| 7 | 900 OR MORE |

31. THE LAST TIME YOU DRANK ALCOHOL, HOW MANY DRINKS DID YOU HAVE? (1 DRINK = 1 GLASS OF WINE, 1 WINE COOLER, 1 BOTTLE OF BEER, OR 1 TOT OF LIQUOR) (Choose one)

- | | |
|---|----------------|
| 1 | 1 |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |
| 5 | 5 |
| 6 | 6 TO 9 |
| 7 | 10 OR MORE |
| 9 | NOT APPLICABLE |

32. OF YOUR CLOSEST FRIENDS, HOW MANY DO YOU THINK HAVE EVER USED ALCOHOL? (Choose one.)

- | | |
|---|------|
| 1 | NONE |
| 2 | SOME |
| 3 | MOST |
| 4 | ALL |

33. AT WHAT AGE DID YOU FIRST SMOKE DAGGA? (Choose one)

- | | |
|----|---------------------------|
| 00 | I HAVE NEVER SMOKED DAGGA |
| 01 | 8 OR YOUNGER |
| 02 | 9 |
| 03 | 10 |
| 04 | 11 |
| 05 | 12 |
| 06 | 13 |
| 07 | 14 |
| 08 | 15 |
| 09 | 16 |
| 10 | 17 |
| 11 | 18 OR OLDER |

34. IN THE LAST 14 DAYS, HOW MANY TIMES HAVE YOU USED DAGGA? (Choose one)

- | | |
|---|------------|
| 1 | ZERO |
| 2 | 1 TO 2 |
| 3 | 3 TO 5 |
| 4 | 6 TO 9 |
| 5 | 10 TO 19 |
| 6 | 20 TO 39 |
| 7 | 40 OR MORE |

35. IN THE LAST YEAR, HOW MANY TIMES HAVE YOU USED DAGGA? (Choose one)

- | | |
|---|-------------|
| 1 | ZERO |
| 2 | 1 TO 50 |
| 3 | 26 TO 100 |
| 4 | 100 TO 200 |
| 5 | 201 TO 424 |
| 6 | 425 TO 899 |
| 7 | 900 OR MORE |

PLEASE RATE THE FOLLOWING STATEMENTS ABOUT HAVING SEX:

36. I BELIEVE IT'S OK FOR PEOPLE MY AGE TO HAVE SEX WITH SOMEONE THEY'VE JUST MET. (Choose one)

- | | |
|---|-------------------------|
| 1 | AGREE A LOT |
| 2 | AGREE A LITTLE |
| 3 | DON'T AGREE OR DISAGREE |
| 4 | DISAGREE A LITTLE |
| 5 | DISAGREE A LOT |

37. I BELIEVE IT'S OK FOR PEOPLE MY AGE TO HAVE SEX WITH SOMEONE THEY LOVE. (Choose one)

- 1 AGREE A LOT
- 2 AGREE A LITTLE
- 3 DON'T AGREE OR DISAGREE
- 4 DISAGREE A LITTLE
- 5 DISAGREE A LOT

38. MY RELIGION TEACHES ME THAT PEOPLE SHOULD WAIT UNTIL THEY ARE MARRIED BEFORE THEY HAVE SEX. (Choose one)

- 1 AGREE A LOT
- 2 AGREE A LITTLE
- 3 DON'T AGREE OR DISAGREE
- 4 DISAGREE A LITTLE

39. OF YOUR CLOSEST FRIENDS, HOW MANY DO YOU THINK HAVE EVER HAD SEX? (Choose one)

- 1 NONE
- 2 SOME
- 3 MOST
- 4 ALL

PLEASE ANSWER HOW MUCH YOU AGREE OR DISAGREE WITH THE FOLLOWING STATEMENTS, EVEN IF YOU HAVE NEVER HAD SEX BEFORE:

40. CONDOMS ARE UNTIDY. (Choose one)

- 1 AGREE A LOT
- 2 AGREE A LITTLE
- 3 DON'T AGREE OR DISAGREE
- 4 DISAGREE A LITTLE
- 5 DISAGREE A LOT

41. A CONDOM IS *NOT* NECESSARY IF YOU KNOW YOUR SEX PARTNER. (Choose one)

- 1 AGREE A LOT
- 2 AGREE A LITTLE
- 3 DON'T AGREE OR DISAGREE
- 4 DISAGREE A LITTLE
- 5 DISAGREE A LOT

42. CONDOMS TAKE AWAY THE PLEASURE OF SEX. (Choose one)

- 1 AGREE A LOT
- 2 AGREE A LITTLE
- 3 DON'T AGREE OR DISAGREE
- 4 DISAGREE A LITTLE
- 5 DISAGREE A LOT

43. IF MY SEX PARTNER WANTED TO USE A CONDOM, I WOULD ACCEPT HIS/HER CHOICE TO USE ONE.
(Choose one)

- 1 AGREE A LOT
- 2 AGREE A LITTLE
- 3 DON'T AGREE OR DISAGREE
- 4 DISAGREE A LITTLE
- 5 DISAGREE A LOT

44. A CONDOM IS *NOT* NECESSARY WHEN YOU ARE WITH THE SAME SEX PARTNER FOR A LONG TIME.
(Choose one)

- 1 AGREE A LOT
- 2 AGREE A LITTLE
- 3 DON'T AGREE OR DISAGREE
- 4 DISAGREE A LITTLE
- 5 DISAGREE A LOT

45. MY RELIGION FORBIDS ME FROM USING A CONDOM DURING SEX (Choose one)

- 1 AGREE A LOT
- 2 AGREE A LITTLE
- 3 DON'T AGREE OR DISAGREE
- 4 DISAGREE A LITTLE
- 5 DISAGREE A LOT

46. WHO HAVE YOU EVER TALKED TO ABOUT SEX? (Tick as many as you agree with)

- ___ MY MOTHER OR FEMALE GUARDIAN
- ___ MY FATHER OR MALE GUARDIAN
- ___ ANOTHER ADULT IN MY FAMILY
- ___ A BROTHER OR SISTER
- ___ A COUSIN
- ___ A TEACHER
- ___ A FRIEND WHO IS THE SAME SEX AS I AM
- ___ A FRIEND WHO IS OF THE OPPOSITE SEX
- ___ MY BOYFRIEND OR GIRLFRIEND
- ___ MY MINISTER OR PRIEST
- ___ A DOCTOR
- ___ ANOTHER PERSON NOT LISTED ABOVE

47. HAVE YOU EVER HAD SEX? ("GOING ALL THE WAY" OR VAGINAL SEX)?

- | | |
|---|-----|
| 1 | Yes |
| 0 | No |

THE NEXT GROUP OF QUESTIONS ASK ABOUT WHEN YOU HAD SEX FOR THE FIRST TIME. IF YOU NEVER HAD SEX, MARK THE LAST ANSWER FOR EACH QUESTION:

48. HOW OLD WERE YOU WHEN YOU HAD SEX FOR THE FIRST TIME? (Choose one)

- | | |
|----|--------------------|
| 1 | 9 OR YOUNGER |
| 2 | 10 |
| 3 | 11 |
| 4 | 12 |
| 5 | 13 |
| 6 | 14 |
| 7 | 15 |
| 8 | 16 |
| 9 | 17 |
| 10 | 18 OR OLDER |
| 11 | I'VE NEVER HAD SEX |

49. WHERE WERE YOU THE FIRST TIME YOU HAD SEX? (Choose one)

- | | |
|---|------------------------------------|
| 1 | MY PARTNER'S HOME |
| 2 | MY HOME |
| 3 | OUTDOORS, LIKE IN A FIELD OR WOODS |
| 4 | AT A FRIEND'S HOME |
| 5 | IN A CAR |
| 6 | OTHER |
| 9 | I'VE NEVER HAD SEX |

50. WHAT TYPE OF PROTECTION DID YOU USE THE FIRST TIME YOU HAD SEX? (Tick as many as you agree with)

- | | |
|---|------------------------------|
| — | NO METHOD WAS USED |
| — | BIRTH CONTROL PILLS |
| — | THE INJECTION (DEPO PROVERA) |
| — | CONDOMS |
| — | WITHDRAWAL (PULLING OUT) |
| — | I'VE NEVER HAD SEX |

THE NEXT GROUP OF QUESTIONS ASKS ABOUT YOUR RECENT SEXUAL EXPERIENCES. AGAIN, IF YOU NEVER HAD SEX, MARK THE LAST ANSWER FOR EACH QUESTION:

51. WHAT TYPE OF PROTECTION DID YOU USE THE LAST TIME YOU HAD SEX? (Tick as many as you agree with)

- ☐ NO METHOD WAS USED
- ☐ BIRTH CONTROL PILLS
- ☐ THE INJECTION (DEPO PROVERA)
- ☐ CONDOMS
- ☐ WITHDRAWAL ("PULLING OUT")
- ☐ I'VE NEVER HAD SEX

52. THINKING ABOUT THE LAST TIME YOU HAD SEX, HOW WOULD YOU DESCRIBE YOUR RELATIONSHIP WITH YOUR PARTNER? (Choose one)

- 1 JUST MET
- 2 TALKED WITH ONCE IN A WHILE BEFORE
- 3 WE ARE FRIENDS
- 4 HE/SHE IS MY GIRLFRIEND/BOYFRIEND
- 9 I'VE NEVER HAD SEX

THANK YOU FOR COMPLETING THIS SURVEY!

APPENDIX B

Dear Parent

The School of Psychology at the University of Natal is conducting a study looking at the relationship between perceived parental monitoring and involvement in health- related risk-taking behaviours in adolescents.

The study aims to replicate the research that has been done in the US and the UK, looking at teenagers' involvement in risk - taking behaviours (such as, alcohol use, substance abuse and sexual activity), to see if this is related to perceived levels of parental monitoring (the level of supervision by parents). The study aims to investigate the age at which these behaviours are initiated as well as how often teenagers engage in these behaviours. Boys will be compared to girls to see if one gender engages in certain behaviours, more than the other does. The level of parental monitoring (supervision) will be assessed across different age groups to test whether parental monitoring increases or decreases with age, and how this affects engagement in risk - taking behaviours.

It is hoped that the results of the study will be used by other researchers to design intervention strategies to help decrease involvement of adolescents in risk taking behaviours.

What the study entails: Data will be collected by giving a questionnaire to the participants, which should take +/- 1 hour to fill-in. The participants are assured of confidentiality and will not be required to write their names anywhere on the questionnaire. The results of the study will be used solely for academic purposes and will only be accessible to the researcher and her supervisor.

The questionnaire will consists of questions that assess perceived parental monitoring, that is, how much parents know about their children's after school activities. The rest of the questions will be questions that look at alcohol / substance use and sexual activity.

If you as the child's legal guardian / or parent would like to give permission for your child to participate in the study please sign the consent form below and send the letter back to the school with your child.

Thanking you in advance

Yours sincerely

P.T. Bennie (researcher)

CONSENT FORM

I.....(parent / guardian) of
.....(child's name), having read the brief of the study, hereby
give my permission for my son / daughter to take part in the study described above. I
understand that no harm will come to my child while participating in the study and that the
results of the study will be used solely for academic purposes. I have been assured of
confidentiality and understand that even in the event that the results of the study get
published, the names of the participants will not be divulged. I also understand that no
payment shall be given to the participants for taking part in the study.

Signed..... on this day. / 02
at.....

Appendix C: Oneway ANOVA

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
PMGSCALE	Between Groups	11.754	5	2.351	3.526	.004
	Within Groups	411.985	618	.667		
	Total	423.739	623			
risky behaviour scale	Between Groups	38.638	5	7.728	3.084	.009
	Within Groups	1653.700	660	2.506		
	Total	1692.338	665			
condom attitude scale	Between Groups	22.882	5	4.576	5.314	.000
	Within Groups	515.885	599	.861		
	Total	538.767	604			
level of religiosity	Between Groups	14.766	5	2.953	4.806	.000
	Within Groups	402.495	655	.614		
	Total	417.262	660			

Post Hoc Tests

Homogeneous Subsets

PMGSCALE

Tukey HSD^{a,b}

		Subset for alpha = .05
Age	N	1
13 or younger	119	1.8571
14	208	2.0317
16	89	2.1124
15	170	2.1918
18 or older	3	2.3333
17	35	2.3714
Sig.		.504

Means for groups in homogeneous subsets are displayed.

- Uses Harmonic Mean Sample Size = 15.297.
- The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

risky behaviour scale

Tukey HSD^{a,b}

		Subset for alpha = .05
Age	N	1
13 or younger	123	1.1220
14	221	1.1810
16	95	1.4632
18 or older	4	1.5000
15	183	1.5574
17	40	2.0000
Sig.		.503

Means for groups in homogeneous subsets are displayed.

- Uses Harmonic Mean Sample Size = 19.760.
- The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

condom attitude scale

Tukey HSD^{a,b}

Age	N	Subset for alpha = .05	
		1	2
18 or older	4	2.0000	
17	35	2.6286	2.6286
16	83		3.1687
15	166		3.2470
14	204		3.3382
13 or younger	113		3.3451
Sig.		.284	.156

Means for groups in homogeneous subsets are displayed.

- Uses Harmonic Mean Sample Size = 19.330.
- The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

level of religiosity

Tukey HSD^{a,b}

Age	N	Subset for alpha = .05	
		1	2
17	40	2.7750	
15	182	3.0000	
16	94	3.0745	3.0745
14	219	3.1598	3.1598
13 or younger	122	3.3279	3.3279
18 or older	4		3.7500
Sig.		.230	.074

Means for groups in homogeneous subsets are displayed.

- Uses Harmonic Mean Sample Size = 19.744.
- The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Appendix D

Variables Entered/Removed ^a

Model	Variables Entered	Variables Removed	Method
1	gender dummy variables		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	Age		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	level of religiosity		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: SQRTTB

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.432 ^a	.186	.185	.74267
2	.455 ^b	.207	.204	.73364
3	.468 ^c	.219	.215	.72898

- a. Predictors: (Constant), gender dummy variables
- b. Predictors: (Constant), gender dummy variables, Age
- c. Predictors: (Constant), gender dummy variables, Age, level of religiosity

ANOVA^d

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	70.181	1	70.181	127.242	.000 ^a
	Residual	306.664	556	.552		
	Total	376.844	557			
2	Regression	78.127	2	39.063	72.578	.000 ^b
	Residual	298.718	555	.538		
	Total	376.844	557			
3	Regression	82.446	3	27.482	51.716	.000 ^c
	Residual	294.398	554	.531		
	Total	376.844	557			

a. Predictors: (Constant), gender dummy variables

b. Predictors: (Constant), gender dummy variables, Age

c. Predictors: (Constant), gender dummy variables, Age, level of religiosity

d. Dependent Variable: SQRTRB

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.530	.046		11.630	.000
	gender dummy variables	.710	.063	.432	11.280	.000
2	(Constant)	.299	.075		3.975	.000
	gender dummy variables	.675	.063	.410	10.731	.000
	Age	9.515E-02	.025	.147	3.842	.000
3	(Constant)	.560	.118		4.736	.000
	gender dummy variables	.659	.063	.401	10.513	.000
	Age	9.387E-02	.025	.145	3.814	.000
	level of religiosity	-.188	.066	-.108	-2.851	.005

a. Dependent Variable: SQRTRB

Excluded Variables^d

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	TRADFAM	.051 ^a	1.323	.186	.056	1.000
	condom attitude scale	-.069 ^a	-1.753	.080	-.074	.945
	level of religiosity	-.110 ^a	-2.886	.004	-.122	.992
	revised pmg	-.080 ^a	-2.083	.038	-.088	.994
	presence of family conflict	.021 ^a	.560	.576	.024	1.000
	Age	.147 ^a	3.842	.000	.161	.978
2	TRADFAM	.062 ^b	1.640	.102	.069	.994
	condom attitude scale	-.050 ^b	-1.266	.206	-.054	.928
	level of religiosity	-.108 ^b	-2.851	.005	-.120	.992
	revised pmg	-.072 ^b	-1.907	.057	-.081	.991
	presence of family conflict	.009 ^b	.246	.806	.010	.993
3	TRADFAM	.060 ^c	1.598	.111	.068	.994
	condom attitude scale	-.057 ^c	-1.472	.142	-.062	.924
	revised pmg	-.062 ^c	-1.642	.101	-.070	.981
	presence of family conflict	.016 ^c	.415	.678	.018	.989

a. Predictors in the Model: (Constant), gender dummy variables

b. Predictors in the Model: (Constant), gender dummy variables, Age

c. Predictors in the Model: (Constant), gender dummy variables, Age, level of religiosity

d. Dependent Variable: SQRTTB