

**THE CORRELATION BETWEEN CERTAIN
INTERPERSONAL RELATIONSHIPS AND THE
RISKY SEXUAL BEHAVIOUR OF URBAN BLACK
ADOLESCENTS**

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[B.Sc. (Psychology, Zoology), Hons (Psychology)]

*Dissertation (in article format) submitted in accordance with the partial requirements for
the degree*

MSc. Psychology

in the

DEPARTMENT OF PSYCHOLOGY,

FACULTY OF HUMANITIES

at the

UNIVERSITY OF THE FREE STATE

MAY 2006

SUPERVISOR : PROF. D.A. LOUW

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DECLARATION

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NG KIGOZI

READER'S ORIENTATION

In accordance with the regulations of the University of the Free State, this dissertation is presented in the format of two articles. By virtue of the fact that the methodology employed was very similar in the two studies, this may translate into a perception of overlap and repetition between articles. However, this situation is not unusual in the research community, where several articles based on a single study are published independently. Consequently, it is suggested that the reader view each article independently.

ARTICLE 1

THE CORRELATION BETWEEN PARENT-ADOLESCENT RELATIONSHIPS AND ADOLESCENT SEXUAL BEHAVIOUR

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THE CORRELATION BETWEEN PARENT- ADOLESCENT RELATIONSHIPS AND ADOLESCENT SEXUAL BEHAVIOUR

ABSTRACT

The development of adolescent risk-taking behaviour has been attributed to various factors, including the influence of parents. The present study sought to explore the impact of the relationship between black parents and their adolescents on the latter's sexual behaviour. More than 500 male and female adolescents completed the *Parent-Child Relationship Questionnaire* (PCRQ; Furman, 1991) and a self-report *sexual practices questionnaire*. Results showed no significant correlation between the variables. However, gender differences were established regarding two relationship dimensions, namely power assertion and possessiveness. More specifically, significantly more female than male adolescents reported that their parents exerted stringent and restricting control. Concerning overall sexual activity, boys were found to be significantly more sexually active than girls. This could be ascribed to cultural-societal norms concerning the rearing of the two genders. Limitations of the study (e.g. generalisability) are discussed and recommendations given.

Key words: adolescent sexual behaviour, parent-adolescent relationship, *Parent-Child Relationship Questionnaire*, *sexual practices questionnaire*.

SAMEVATTING

Die ontwikkeling van adolessente risikogedrag word aan verskeie faktore, insluitend die invloed van die ouers, toegeskryf. Die doel van die huidige studie is om die impak van die verhouding tussen swart ouers en hulle adolessente op laasgenoemde se seksuele gedrag, te ondersoek. Meer as 500 deelnemers het die *Parent-Child Relationship Questionnaire* (PCRQ,

Furman, 1991) en 'n selfbeskrywende vraelys oor adolessente seksuele praktyke voltooi. Die resultate het egter geen betekenisvolle korrelasie tussen die veranderlikes aangedui nie. Geslagsverskille het egter ten opsigte van twee verhoudingsdimensies voorgekom, naamlik magshandhawing en besitlikheid. Meer spesifiek het betekenisvol meer vroue- as mans-adolessente gerapporteer dat hul ouers streng en beperkende beheer oor hulle uitgeoefen het. Wat algemene seksuele aktiwiteite betref, is gevind dat mans-adolessente meer seksueel aktief is as vroue-adolessente. Dit kan toegeskryf word aan die kulturele en gemeenskapsnorms rakende die opvoeding van die twee geslagte. Tekortkominge van die studie (bv. veralgemeenbaarheid) word bespreek en aanbevelings word gedoen.

LITERATURE REVIEW

The developmental tasks during adolescence are greatly influenced by several factors such as personal experiences and perceptions of the surroundings. In this regard there is general agreement that parents, as primary socialisers, play a significant role. They transfer information, values, beliefs and morals to adolescents (Heaven, 2001) which in turn may influence a wide variety of behaviour, including sexuality.

It is therefore understandable that the role of various parenting practices on the sexual behaviour of adolescents has received much attention from researchers. For instance, studies have revealed a negative correlation between parental monitoring (i.e. parents' knowledge of children's whereabouts) and adolescent sexual risk-taking behaviour (Borawski, Ievers-Landis, Lovegreen & Trapl, 2003; Huebner & Howell, 2003; Rai et al., 2003). In other words, adolescents who reported high parental monitoring were more likely to engage in sexually healthy practices such as involvement in monogamous relationships and the consistent use of contraception. Rodgers (1999) views such findings as a response by adolescents to inferred parental care that is expressed through the parents' monitoring behaviour. In addition, Metzler, Noell, Biglan, Ary and Smolkowski (1994) discovered a positive correlation between parental monitoring and deviant peer relationships with concomitant sexual risk-taking

behaviour in adolescents. They explain that when there is not much parental monitoring of adolescent activities, there is a greater likelihood for such adolescents to associate themselves with deviant peers and, consequently, indulge in various problematic behaviour including those of a sexual nature.

A finding associated with monitoring that could indirectly influence adolescent sexual risk-taking is the availability of parental figures. Metzler et al. (1994) established that in situations where parental figures were reportedly rarely available or totally absent, adolescents were likely to engage in risky sexual behaviour. They proposed that when the parents were not available, not only was parental monitoring reduced but the adolescents also lacked models of appropriate sexual behaviour.

On the other hand, Rodgers (1999) maintains that when parents tend to monitor adolescents a great deal, adolescents may instead take on high-risk sexual behaviour. Specifically, the researcher found that adolescents who perceived a high level of psychological control in their parents' monitoring were more likely to report high-risk sexual behaviour. In this case, it was assumed that the element of parental psychological control, especially through guilt provocation, is less likely to allow for adolescents' psychological maturity. This in turn prevents the internalisation of morals associated with responsible sexual decision-making. Such adolescents are prone to high-risk sexual behaviour.

Previous research has described parental monitoring as predominantly unidirectional (i.e. parents' knowledge of children's whereabouts). However, Stattin and Kerr (2000) maintain that the practice of monitoring should be a two-way process characterised by the elements of parents' solicitation of information from adolescents, parental control of adolescents and adolescents' disclosure of information. This process not only allows for children to freely divulge information to their parents, but also allows for the establishment of pleasant communication channels between parents and children. In this regard, Pettit, Laird, Dodge, Bates and Criss (2001) also emphasise that, as adolescents actively engage in extra-familial settings, parents need better skills in monitoring, communication and effective listening so as to keep track of their children's whereabouts more easily. Such skills would also increase the

chances of children obeying the rules and regulations set by parents (e.g. about how much time is spent with friends).

Good parent-adolescent communication has also been found to have an effect on other variables such as peers, which are known to influence adolescent sexual risk-taking such as peers. For instance, Whitaker and Miller (2000) found that adolescents who discussed sex and condoms with parents were less likely to be influenced by peer norms of sexual activity. They were also less likely to engage in high-risk sexual behaviour. The researchers proposed that good communication between parents and adolescents not only informs adolescents but also reinforces parents' values and serves to protect adolescents against peer-group pressure.

Several other areas concerning parenting and adolescent sexual risk-taking behaviour have been researched. For instance, Ary, Duncan, Biglan, Metzler, Noell and Smolkowski (1999) established that adolescent problem behaviour such as sexual risk-taking was caused by high levels of conflict between family members, little family involvement and monitoring of adolescent behaviour. High conflict is exemplified by rampant arguments between parents and children, while family involvement entails the tendency for parents and children to show support for one another, the feeling of togetherness, and the tendency for parents and children to co-exist peacefully. Lange, Evers and Jansen (2002) add that positive parent-child relationships are characterised by high parental acceptance of adolescents and low conflict between the parties. A similar observation was made by Taris and Semin (1997) when they found that in low conflict situations, both children and parents strive to understand one another and to maintain a good relationship. It is therefore less likely for children from this type of background to consent to high-risk sexual behaviour. Taris and Semin (1998) also established that adolescents who were more involved with their mothers were likely to be assertive although less sexually experienced. They proposed that the mothers' involvement enhances the transmission of sexual values from mothers to adolescents and consequently promotes sexually responsible behaviour among adolescents.

In addition, disciplinary strategies employed by parents have also been associated with risky sexual behaviour in adolescents. These include strategies such as reinforcement, punishment,

ignoring, inductive techniques such as discussion, and coercive verbal control (Furman & Giberson, 1995; Oburu & Palmèrus, 2003). According to Furman and Giberson (1995) employment of any disciplinary strategies will influence the occurrence of given behaviour. Metzler et al. (1994) explained that coercive interactions between parents and children would in most cases increase conflict between them. This may in turn, increase adolescent involvement with deviant peers, increasing the likelihood of these adolescents endorsing risky sexual behaviour.

It is also important to mention that certain disciplinary strategies have been associated with specific parenting styles projected by Baumrind (1971). According to Baumrind, authoritarian parents are most likely to employ power assertive strategies such as physical punishment, the use of forceful commands, and the withdrawal of privileges. On the other hand, authoritative parents employ inductive methods such as reasoning, explaining and setting of clear limits. In addition, permissive parents do not exercise any of the aforementioned disciplinary strategies. Accordingly, adolescents from these backgrounds should be expected to behave differently. For example, it might be said that compared to the adolescents of authoritative parents, children of authoritarian and permissive parents are more likely to develop problem behaviour including that of a sexual nature. This is because of the lack of assertiveness, and loss of self control associated with children from the respective parenting styles.

However, it could be argued that disciplinary strategies do not depend on parenting style per se, but also on personal and contextual factors. For example, Oburu and Palmèrus (2003) in a study with grandmothers and their adopted grandchildren established a significant relationship between stress on the one hand, and the use of power assertive techniques such as physical punishment and physical restraint, on the other. They explained that adoption of such disciplinary strategies occurred under the stressful circumstances emanating from the AIDS pandemic in which parents who had been the major breadwinners had all perished from AIDS-related disease. As such, grandmothers found themselves in situations that called for them to be financial as well as moral resources to the AIDS orphans. Given such severe circumstances for many of these grandmothers, the use of power assertive disciplinary

strategies was the only way to manage the AIDS orphans while having to seek a means to survive.

More research findings (e.g. Pettit, et al., 2001) have linked disciplinary strategies to the tendency for parents to control their children psychologically. From their research, Pettit et al. (2001) found mothers who were harsh and punitive to children in early childhood were more likely to be psychologically intrusive in adolescent years. They state that such an outcome is due to the intention of parents to control not only their children's overt behaviour, but also their developing psychological autonomy. However, parent-adolescent interactions such as these could most likely result in conflict as adolescents strive to attain psychological autonomy on the one hand, and parents endeavour to strip them of it, on the other. Also, as has been mentioned (Metzler et al., 1994), conflict-ridden situations allow for limited parental involvement. It is possible therefore, that adolescents from these background will engage in high-risk sexual behaviour when they increasingly spend time away from conflict-ridden homes. This, in turn, may increase their chances of associating with deviant peers.

Another important factor associated with parenting that could grossly affect adolescent sexual behaviour is poverty. McLoyd (1990) reported that for the most part poverty-stricken parents are emotionally stressed. For this reason, such parents tend to be less supportive, sensitive or even involved with their children. Also, parents in these circumstances tend to employ power assertive techniques such as the command for obedience and the use of physical punishment in disciplining their children. He goes on to say that emotional stress stemming from environmental factors like poverty tends to limit the extent to which parents reward, explain, consult and negotiate with their children. In this regard, it could be said that the emotional distress associated with poverty would tend to discourage parents from practices such as monitoring, support, and involvement, which, as has been mentioned previously, contribute to low levels of adolescent sexual risk-taking.

Existing research studies in South Africa have also mentioned the influence of parents on adolescent sexuality. According to Delius and Glaser (2002) there were few reported cases of unplanned pregnancy in traditional black families in South Africa because parents and other

community members strictly monitored and regulated adolescent sexual activity. In addition, sexuality was openly discussed in all families. However, major transitions have since occurred: for example, the onset of black work-related rural-urban migration which led to the breakdown of many traditional family structures that had previously provided a favourable atmosphere for adolescent sex-related instruction. Also, adolescents have assumed independence from often absent parents, which has led to a further disintegration of parent-adolescent connectedness.

In another South African study, De Visser and Le Roux (1996) similarly noted a breakdown in black parent-adolescent interactions. In this study, although mother-adolescent relationships were reportedly fair, the researchers observed that fathers played a negligible role in their children's sexual development. Parent-adolescent relationships were also characterised by conflicts and adolescents were reported to disregard parents' values. Parents acted indifferently in return. Moreover, these adolescents' relationships with peers and sexual partners were also weak, tainted by distrust and lack of support. With this background, adolescents often used sex as a means of maintaining social relationships, many of which culminated in unplanned pregnancies. James, Reddy, Taylor and Jinabhai (2004) also confirmed the sorry state of parent-adolescent relationships in many South African families when they established that the least used source of sex-related information for the adolescents in their study was the parents.

Despite the breakdown of family-based guidance on sex-related matters as well as the presence of poor communication between parents and adolescents, there is still evidence for parents' continued concern for adolescents' sexually risky activity. For example, Kelly and Parker (2000) mentioned that in some South African rural areas, mothers would send their children to clinics to receive contraceptives whether they were sexually active or not. The adults' concern for the adolescents is also reflected in Macphail and Campbell's (2001) study where adults attempt to restrain adolescent sexual activity through monitoring and punishment. Surprisingly, the same study reported a double standards set especially by inebriated adults who engaged in public sex-related acts. In addition, the study revealed that adolescents stealthily engaged in sexual activity in the absence of their parents. From this

study it could be deduced that adolescents whose parents set bad examples are less likely to engage safe sex behaviour owing to lack of motivation from these parents. Research studies on punishment have found that the use of physical punishment in most cases elicits anger, hostility and rebellion. Concerning Macphail and Campbell's study, stealthy sexual acts could be a form of rebellion toward parents.

One factor that might have grossly affected parent-adolescent communication on sex-related matters in many black South African communities is the introduction of contraceptives. According to Kelly and Parker (2000) contraceptives have not only eliminated the threat of unplanned pregnancy, but have also interfered with the traditional process by which parents regulated adolescent sexual activity. Avoidance of unplanned pregnancy was one of the reasons parents used in order to restrain adolescents sexual activity, but with the introduction of contraceptives, parents no longer have a valid enough excuse to monitor their children's sexual activity, further widening the relational gap between parents and adolescents.

On the whole, existing South African studies only partially support international findings regarding the influence of parents on adolescent sexual risk-taking behaviour. For example, whereas South African parents' efforts at monitoring and restraining adolescent sexual activity may be appreciated, their methods such as punishment do not compare with the ones such as solicitation and disclosure, recommended in international studies. So far, such methods have yielded few positive results concerning adolescent sexual risk-taking.

In order to cast more light on the influence of parent-adolescent relationships, the present study was conducted in the Mangaung area of the Free State Province, where research in this area is specially lacking. As existing literature (Baumeister, Catanese & Vohs, 2001; De Visser & Le roux, 1996; Lesch & Kruger, 2004) indicates that there are important gender differences in adolescent sexuality with regard to the experience of sexual encounter, emotional aspects related to sexual activity, and differences in sex drives for example, the present study also focuses on this aspect.

RESEARCH METHODOLOGY

Participants. The total sample consisted of 512 randomly selected black adolescents aged 15 to 19 years from six high schools in the Mangaung area of the Free State Province. The participants' (N=501) average age was 17.58 years. Male (49.1%) and female (50.9%) participants (N=505) had almost equal representation. Over 50% of participants (N=486) were in grade 11, while 28.6% and 20.2% were in grades 10 and 12 respectively. Participants were mostly Sesotho-speaking, although other languages such as Isixhosa, IsiZulu and Tswana were spoken. Permission to use this sample was obtained from the Free State Department of Education and the principals for the high schools considered.

Measures. Two measuring instruments were used.

1. The *Parent-Child Relationship Questionnaire* (PCRQ; shortened Child Version; Furman, 1991) was used to measure parent-adolescent relationship. More specifically, this instrument is designed to measure children's perception of their relationship with their parents. Variables measured together with their subscales include:
 - Parental feelings of warmth for their children: affection, admiration by the parent and admiration for the parent.
 - Disciplinary warmth: praise, shared decision making and rationale.
 - Personal relationship: prosocial, similarity, companionship, intimacy and nurturance
 - Power assertion: quarrelling, physical punishment, dominance, deprivation of privileges, verbal punishment and guilt induction.
 - Possessiveness : possessiveness, protectiveness.

The instrument consists of 40 items related to parent-child relationship. Items are scored on a 5-point Likert scale (1=hardly at all; 5=extremely much). Participants were required to complete the PCRQ with regard to the parental figure with whom they perceived a better relationship.

Reliability coefficients for the main scales range from 0.68 to 0.88. According to Furman and Giberson (1995), evidence for convergent validity is such that the variables measured by the PCRQ are significantly correlated to the parents' management techniques.

2. *Sexual practices questionnaire*. A self-report questionnaire on sexual behaviour and specifically sexual practices was developed by the researcher to determine the sexual practices of participants. The items included a biographical section and questions developed from relevant existing literature regarding sexual practices (Buga, Amoko & Ncayiyana, 1996; Varga, 1997; Visser, 2003; Vundule, Maforah & Jordaan, 2001). Examples of the items are: the age of onset of sexual activity, frequency of sexual activity, number of sexual partners in the last six months, safe sex practices, pregnancy, and the influence of peers, parents and culture on sexual practices. Given the fact that English was only a second or even third language for most of the participants, items were made as user-friendly as possible. The researcher was also personally present during the administration of the questionnaires in each of the schools so that she could address any problems related to the questionnaire.

Statistical Analysis

The demographic composition of the sample was established by means of frequencies of the various subgroups. Descriptive statistics (means and standard deviations) were calculated for all the scales administered. That is, the *Parent-Child Relationship Questionnaire*, and the sexual practices questionnaire. Descriptive statistics were also calculated for the various demographic subgroups in order to compare their scores. To further these comparisons, t-tests were used to compare the mean scores of demographic subgroups on the various scales.

RESULTS AND DISCUSSION

As mentioned, the total number of participants was 512. It should be noted, however, that not all participants answered every question. As a result, there was a variation in the total number of participants (N) recorded for every question.

As far as the presence of parents is concerned, more than 40% of participants (N=507) lived with mothers only, while 33.5% stayed with both biological parents. Only a small number (4.5%) stayed with fathers only. The higher number of maternally headed homes and scarcity of fathers is also exhibited in other South African studies (e.g. De Klerk & Ackerman, 2002; De Visser & Le Roux, 1996; Jewkes, Vundule, Maforah & Jordaan, 2001). Such an occurrence has been attributed to a number of reasons including labour migration, divorce, desertion, imprisonment, and hospitalisation (Delius & Glaser, 2002; Mboya & Nesengani, 1999). As it was not the focus of the present study, the reason for the high number of absent fathers was not established.

Parent-adolescent relationship

Table 1 provides data concerning the main scales of the PCRQ.

Table 1: Descriptive results of the PCRQ main scales.

Main scales	N	\bar{X}	S
Parental feelings of warmth	503	3.94	0.95
Disciplinary warmth	498	3.29	0.84
Personal relationship	502	3.25	0.88
Power assertion	503	2.82	0.70
Possessiveness	502	3.30	0.82

Concerning the main scales, Table 1 indicates that participants scored highest on perceived parental feelings of warmth and lowest on perceived power assertion. Mean scores for the three remaining main scales were almost even. Further analysis of the subscales (i.e.

affection, admiration by the parent, admiration of the parent, praise, shared decision making, rationale, prosocial, similarity, companionship, intimacy, nurturance, quarrelling, physical punishment, dominance, deprivation of privileges, verbal punishment, guilt induction, possessiveness and protectiveness) indicated that participants scored highest on the subscale of admiration of parents ($n = 498$, $\bar{x} = 3.90$, $s = 1.02$) and lowest on physical punishment ($n = 496$, $\bar{x} = 2.50$, $s = 1.06$). Scores for the rest of the subscales fluctuated between the highest and lowest.

A comparison between the PCRQ main scale scores from the current study and one international study (Gerdes, Hoza, & Pelham, 2003) showed some similarities. For example, in both settings, mean scores on perceived parental feelings of warmth were ranked highest, while power assertion scored the lowest, irrespective of the parent in question. However, the mean scores on perceived parental warmth were higher in the Gerdes et al. study than in the current study. Also, scores on perceived parental power assertion in the Gerdes et al. study were lower than in the current study. The reason for the difference in scores is unclear but a possible reason could lie in the psychometric properties of the PCRQ and the nature of the participants. The PCRQ is an American instrument which has not been standardised for South Africans such as the present group. This also implies that as the PCRQ is only available in English, the present participants who were mainly Sesotho-speaking had to answer the questions in their second or third language.

Regarding the results reflected in Table 1, it is naturally expected for parents to show warmth and support for their children. In one South African study, Edwards (1994) also revealed that participants in his study perceived high levels of warmth with their parents. Parenting behaviour was particularly the love, acceptance and emotional support rendered to children. In addition, the aforementioned results on power assertion differ from findings by Whiting and Whiting (1975) and Oburu and Palmèrus (2003), among the Gusii tribe in Kenya. Whiting and Whiting established that, when interacting with their children, the mothers in their study employed power assertive and coercive methods such as physical punishment more than inductive methods of discipline such as praise, rewards, open affection and encouragement in their interaction with children. A possible reason for such differences could

lie within parental beliefs concerning ideal rearing styles. According to Whiting and Whiting, the mothers in their study held an inherent belief that when children were shown open affection, the resulting behaviour would be a blatant display of disobedience toward their parents.

Table 2: The relationship between male and female participants regarding the PCRQ main scales

Main Scale	Gender	N	\bar{X}	df	t	Significance (2 tailed)
Parental Warmth	male	241	3.92	494.00	-0.280	0.780
	female	255	3.94			
Disciplinary Warmth	male	238	3.28	487.25	-0.571	0.568
	female	253	3.32			
Personal relationship	male	242	3.20	493.00	-1.311	0.190
	female	253	3.30			
Power assertion	male	242	2.74	490.06	-2.532	0.012*
	female	254	2.90			
Possessiveness	male	241	3.20	488.08	-2.936	0.003**
	female	254	3.41			

* $p < 0.05$ ** $p < 0.01$

Concerning the main scales of power assertion and possessiveness, the mean scores for female participants were significantly higher than those of males. Therefore, female participants significantly perceived greater parental power assertion and possessiveness than males. Further analysis on the subscales showed that the only PCRQ subscales where

significant difference among participants was found were possessiveness ($p < 0.01$), quarrelling ($p < 0.05$) and verbal punishment ($p < 0.05$). Female participants scored significantly higher means than male participants on all these three scales. That is, female, more than male participants perceived greater levels of parental possessiveness, quarrelsomeness and the tendency to employ verbal punishment.

Although no South African studies that used the PCRQ could be traced, the present finding supports the results of researchers who use similar measuring instruments. For example, Mboya (1995) established that parenting practices were geared toward girls more than boys. Specifically, girls scored significantly higher ($p < 0.05$) on all the scales of the *Perceived Parental Behaviour Inventory* than boys. That is, the girls in the study perceived more parental support, interest, encouragement, expectation, and participation from their parents.

Sexual behaviour

The participants' sexual behaviour is reflected in Table 3.

Table 3: Results on cross-tabulations between sexual practices and gender

Variable	Sexual activity	Males			Females			Significance 2 tailed
		N	f	%	N	f	%	
Prevalence of sexual activities	Oral sex	199	94	47.2	208	74	35.6	0.017*
	Anal sex	180	33	18.3	177	21	11.9	0.088
	Vaginal sex	229	158	69.0	216	97	44.9	0.000**
Type of initial sexual activity with boyfriend/girlfriend	Oral sex	159	61	38.4	186	53	28.5	0.047*
	Anal sex	107	41	26.1	134	31	18.0	0.237
	Vaginal sex	204	126	61.8	205	86	42.0	0.000**
Believed sexual activity of peers	Oral sex	154	106	68.8	156	92	59.0	0.070
	Anal sex	150	81	54.0	158	81	51.3	0.680
	Vaginal sex	196	175	89.3	201	149	74.9	0.000**
Type of sexual activity with more than one partner	Oral sex	145	69	33.8	166	20	12.1	0.000**
	Anal sex	144	28	19.5	150	19	12.6	0.493
	Vaginal sex	200	84	42.0	190	27	14.2	0.000**
Type of sexual activity acceptable in a committed relationship	Oral sex	165	59	35.8	166	59	35.5	0.998
	Anal sex	160	40	25.0	168	41	24.4	0.980
	Vaginal sex	201	127	63.2	205	83	40.5	0.000**

* $p < 0.05$ ** $p < 0.01$

As is evident from Table 3, the majority of participants had engaged in vaginal sexual activity. Significantly more boys than girls had engaged in both oral and vaginal sexual activities respectively. The incidence of anal sexual activity for both genders in the current study could be regarded as surprisingly high by some. However, studies have found higher incidences. For example, a study on youth in Cape Town (Simbayi Kalichman, Jooste, Cherry, Mfecane & Cain, 2005) established that 34.50% and 26.96% male and female youths respectively had engaged in anal sexual activity. Overall, the prevalence of adolescent sexual activity in the current study aligns with existing literature (e.g. Buga et al. 1996; Olivier,

1996; Simbayi et al., 2005). Concerning gender differences, it is generally accepted that adolescent sexuality is laden with discourses which prescribe different sex roles for boys and to girls. For example, greater sexual liberties are ascribed to boys than to girls. For this reason, it would be acceptable for boys to be more sexually active than girls. This outcome was confirmed by further investigation: more than 50% of both genders maintained that it would be more acceptable for boys to be more sexually active than girls. Also, over 40% of participants agreed that cultural traditions and norms had a certain degree of influence on their sexual practices. Of these, the percentage of boys was significantly higher ($p < 0.01$) than that of girls (43.4% vs. 42.1%).

It was found that for most participants that initial sexual activity had been with either girlfriends or boyfriends. The rest of the sexually active participants of both genders had had their first sexual encounter with especially strangers (4.4%) and family members (2.0%). According to Table 3 which only indicates initial sexual activity with boyfriends/girlfriends, there was a significant difference between boys and girls concerning the initiation of oral and vaginal sexual activities. The percentage of boys was higher than that of girls. These findings confirm research by Jewkes et al. (2001) on urban and peri-urban South African adolescents that the first sexual encounter for most of the participants in their study had been with boyfriends.

From the same Table 3, over 50% of participants assumed that their peers were sexually active concerning all the afore-mentioned sexual activities. The number of boys who held this view was significantly higher than that of girls. This finding is consistent with that of Visser (2003) who also established that the majority of participants in her study believed that peers were sexually active. Although the aspect was not addressed in the present study, the present researcher agrees with Van Dijk (2002) who found that peer modelling can play a role in adolescents' initial sexual activity.

Results from Table 3 also show that most participants had been involved in sexual relationships with more than one partner in the thet six months prior to the present study. In particularly, significantly more boys than girls had been involved in multiple sexual

relationships with regard to oral and vaginal sexual activities respectively. The current findings are consistent with other studies, e.g. Jewkes et al. (2001), Olivier (1996), Peltzer and Promtussananon (2005) and Vundule et al. (2001). It is also a further confirmation of the higher prevalence of sexual activity among boys than girls.

Evidence from Table 3 further indicates that a relatively large number of participants would engage in a sex, as long as it was a committed relationship. Findings relating to vaginal sexual activity show that significantly more boys than girls held such an opinion. This finding confirms a report by Van Dijk (2002) that sexual activity is believed to be a sign of intimacy between the parties involved.

Besides the findings reflected in Table 3, other findings determined by the sexual practices questionnaire about the participants' sexual practices will be briefly outlined below.

- Most sexually active participants seemed to have had their first sexual encounter between the ages of 15 and 16 for all the mentioned sexual activities. In addition, a relatively small percentage of participants commenced sexual activity in preadolescent years (oral sex: 6.9%, N=379; anal sex: 3.9%, N=311; vaginal sex: 7.2%, N=418). These findings are in line with existing research about initiation of adolescent sexual activity in South Africa (e.g. Buga et al., 1996; Visser, 2003; Free State Youth Commission, 2004).
- As far as pregnancy is concerned, 16.7% of the 264 males that answered this question had made a girl pregnant, while 9.3% (N=268) of females who responded to this question had fallen pregnant before. The current number of pregnancies reported by females is over three times smaller than that (31.3%) found by Buga et. al (1996). The smaller percentage in the present study could be that the continuation and persistent advocacy for safe sex has had a positive effect in the ten years since the Buga et al. study. Further investigation revealed that a substantial percentage (56.8%, N=479) of participants had consistently used protection during sexual activity.
- A total of 51.6% (N=370), 34.1% (N=308) and 64.1% (N=404) continued with oral, anal and vaginal sex respectively after the first sexual encounter. More specifically, the findings on the frequency of the specific sexual activities were as follows:

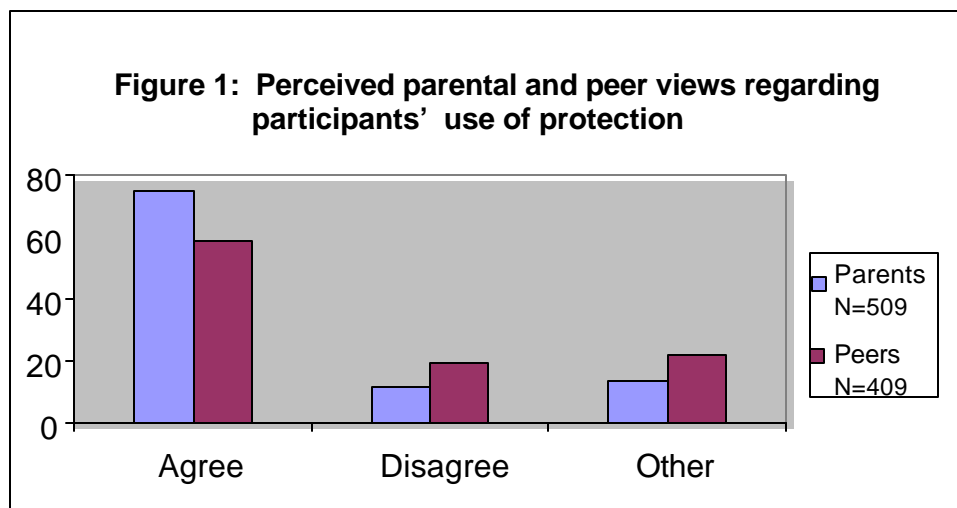
- ❖ Oral sex: regularly; 15.1%; occasionally; 11.9%; rarely; 17.0%; never; 7.6%.
- ❖ Anal sex: regularly; 4.5%; occasionally; 6.2%; rarely; 21.7%; never; 2.3%.
- ❖ Vaginal sex: regularly; 12.1%; occasionally; 20.8%; rarely; 17.3% ; never, 13.9%.

Compared to vaginal sex, the occurrence of oral and anal sex was relatively rare. Van Dijk (2002) and Simbayi et al. (2005) also found from their respective studies that oral and anal sex were infrequent. Van Dijk in particular reported that adolescents in her study found oral sex to be repulsive and dirty. For the same reason, it is likely that adolescents in the current study had engaged in oral and anal sex for curiosity purposes and subsequently such sexual activities were discontinued.

- The majority (88.3%, N=496) of participants agreed that both partners should be involved in sexual decision making. No significant differences were established between the genders concerning this view point.
- The numbers of participants who experienced forced sexual activity were: oral sex: 6.1%, N=342; anal sex: 6.5%, N=353 and vaginal sex: 9.2 %, N=414. This prevalence is similar to that established by other South African studies such as Andersson et al., (2004) and Madu and Peltzer (2001). However, these percentages should be seen in perspective: it is generally accepted that the incidence of certain forms of sexual behaviour such as sexual violence is often, if not mostly, underreported (Ackerman & De Klerk, 2002; Mannah, 2002). The relatively small amount of reported forced sexual activity in the present study could be explained by the kind of social relationship between participants and their respective sexual partners. According to Andersson et al. it is less likely for an individual to refer to forceful sexual activity with an acquaintance as coercive. As has been established, participants in the current study had had sexual encounters mostly with their boy/girlfriends. Therefore, it is possible for these participants to have overlooked probable forceful sexual acts as the sexual partners were known to them.
- A disturbing finding in the present study was that 10% of the participants (N=496) had given or received material compensation in exchange for sexual favours. As this is a relatively high percentage, it could be indicative of a tendency for demeaning sexual behaviour among adolescents, a field that calls for further future investigation.

- Most participants (55.3%, N=483) reported that religion or spirituality did not play any role at all in as far as their sexual practices were concerned. No significant differences were established between the boys and the girls in this regard. As it was not the focus of this study, details about the exact influence (positive or negative) of religion were not established. However, research has established that religion plays an important role in preventing high-risk sexual behaviour (Kelly & Vencatachellum, 2003). On the other hand, adolescents have been reported to cite religion as an excuse for not using contraception (Nicholas & Tredoux, 1996). More work is required to explore religious factors underlying adolescent sexual behaviour.

The safe sex practices of participants were explored. Figure 1 reflects the results concerning the participants' perceived parental and peer views on their use of participants' use of protection.



From Figure 1, it is evident that most participants believed that their use of protection would be more acceptable to parents than their peers. These results align with research by Macphail and Campbell (2001) about the influence that peers have been reported to have over adolescents, specifically, that peer norms have a negative influence on adolescents' safe sex practices.

Additional investigation into the participants' use of protection such as condoms revealed that:

- Significantly more boys ($p < 0.05$) than girls used protection. Condoms, whether supplied or used, were the most prevalent (71.4%, $N=500$) form of protection against STIs and unplanned pregnancy. The majority of participants (73.7%, $N=475$) found these to be easily available. Significantly more boys ($p < 0.05$) than girls found easy access to condoms. Also, over 80% ($N=500$) of participants affirmed that girls could carry condoms to provide to their partners during sexual activity.
- Nearly 50% ($N=500$) of participants disagreed with the myth that condoms reduce sexual pleasure. Of these, significantly more boys ($p < 0.05$) than girls disagreed with such a myth.
- Of the 490 participants who attempted this question, only 20.2% of sexually active participants believed that they were susceptible to HIV/AIDS. This could be regarded as very low by some especially since the majority of participants (see Table 3) in the present study were sexually active. Significantly more boys ($p < 0.05$) than girls perceived a low risk for sexually transmitted diseases. The results align with other research findings such as Macphail and Campbell, 2001 and James et al. (2004). This could possibly be explained by the fact that boys, more than girls, are more inclined to risky and reckless behaviour (Bradley & Wildman, 2002).
- 78.6% ($N=508$) of participants alleged that it would be easy for them to convince sexual partners to use protection every time they engaged in sexual activity. No significant difference was established between male and female participants concerning the ease with which they would negotiate safe sex.

Parent-adolescent relationship and adolescent sexual behaviour.

Following the results presented in Table 2 and 3, investigation was carried out to determine whether the perceived parent-adolescent relationship had any effect on the participants' sexual behaviour (see Table 4). To facilitate the understanding of the relationship between these variables, an independent t-test was performed to determine the link between parent-

adolescent relationship (power assertion and possessiveness scales), sexual behaviour (sexually active vs. non-sexually active) and gender (male vs. female).

Table 4: The relationship between sexual activity, gender and PCRQ main scales.

PCRQ main scale	Type of sexual activity	Gender	Sexually active	n	\bar{x}	t	df	Significance (2-tailed)
Power assertion	oral sex	male	yes	90	2.8	0.332	193	0.740
			no	105	2.7			
		female	yes	73	3.0			
			no	133	2.9			
	anal sex	male	yes	32	2.9	1.502	42	0.140
			no	145	2.7			
		female	yes	21	3.1			
			no	155	2.9			
	vaginal sex	male	yes	154	2.7	-0.1031	223	0.111
			no	71	2.9			
		female	yes	87	2.9			
			no	118	2.9			
Possessiveness	oral sex	male	yes	89	3.3	1.469	192	0.144
			no	105	3.1			
		female	yes	73	3.5			
			no	133	3.4			
	anal sex	male	yes	31	3.4	1.464	184	0.145
			no	145	3.1			
		female	yes	21	3.5			
			no	155	3.4			
	vaginal sex	male	yes	153	3.2	0.799	222	0.408
			no	71	3.2			
		female	yes	97	3.5			
			no	118	3.3			

*p < 0.05

Findings indicated that there were no significant differences in mean scores between sexually active and non-active participants of both genders with regard to the PCRQ main scales of power assertion and possessiveness. In other words, there was no difference in the way male and female sexually active, and non-active participants perceived the aspects of parental power assertion and possessiveness. This finding seems to imply that parent-adolescent relationships do not cover adolescent sexuality. That is, parent-adolescent relationships do not

seem to have a particular impact on their children's sexual behaviour. This, unfortunately could have severe implications as far as adolescent sexual risk-taking is concerned. Similar findings were reported in a South African study by De Visser and Le Roux (1996).

From these results, it would also seem that the present study supports Harris (1998) claims that seek to underestimate the influence of parent-adolescent relationships on adolescent development. She argues that what might be seen as parental influence is actually genetic. For example, children will engage in certain risky behaviour because they have inherited the genetic predisposition for such behaviour from their parents and not because they have observed or learned it from their parents. In addition, she maintains that it is the peers and not the parents that provide significant environmental influence over adolescents' behaviour. However, this is only a claim that has not received sufficient empirical support. On the other hand, parent-adolescent relationships have been shown to influence several aspects of adolescent development such as academic performance (Gutman, McLyod, & Tokoyawa, 2005; Kagan, 1999), substance use (Bogenchneider, Wu, Raffaelli, & Tsay, 1998,) and psychosocial development (Larson, Wilson, Brown, Furstenberg & Verma, 2002; Steinberg, 2001). Therefore, the present results should be viewed in perspective.

CONCLUSION

The objective of the present study was to determine whether there is any link between parent-adolescent relationships and adolescent sexual behaviour. The results indicated no relationship between these variables. A possible explanation is that these relationships, even when they were good, mostly did not include the sexual domain of the adolescents. Therefore, it is recommended that parent-training programmes emphasise the influence that parental interactions have on their children's behaviour, and also that discussion of sexuality should become part of these relationships and interactions.

Another important focus of the current study was to establish whether there was any difference in the way parents related to boys and girls. Results showed that parents employed

significantly more power assertive and possessive strategies toward girls than boys. The most significant forms of power assertion were verbal punishment and quarrelling. Exercise of such power assertive methods might have major implications as far as the girls' general development is concerned. For example, continued exercise of these methods might increase conflict between girls and their parents. According to Ary et al. (1999) high levels of conflict between parents and children in most cases leads to low parental involvement and poor monitoring ultimately giving way to adolescent problem behaviour.

Concerning the participants' sexual activity, vaginal sex was the most prevalent, followed by oral and anal sex. Boys were significantly more sexually active than girls and this could be ascribed to cultural discourses which allow for more sexual liberty among boys than girls.

The present study produced important results concerning parent-adolescent relationships. However, a major limitation of this study was that the measures used were not standardised for use among black South African adolescents. Particularly, the PCRQ was standardised for use among American populations and has not been used elsewhere in South Africa. It is therefore recommended that future studies place specific emphasis on the development of measures suited for use among the different ethnic South African populations. Another limitation was that the current results are not generalisable to all black adolescents living in the Free State province as the study only included adolescents living in the Mangaung region. Therefore, similar future studies should be done in other geographical areas of this province.

It is hoped that findings from the present study will provide answers concerning parent-adolescent relationships and in the process further the understanding of adolescent sexual behaviour.

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ARTICLE 2

THE RELATIONSHIP BETWEEN SEX EDUCATION AND ADOLESCENT SEXUAL BEHAVIOUR

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THE RELATIONSHIP BETWEEN SEX EDUCATION AND ADOLESCENT SEXUAL BEHAVIOUR

ABSTRACT

In order to determine the effect of sex education on the sexual behaviour of black adolescents, 512 male and female participants completed the *Sex Education Inventory* and *Sexual Practices Questionnaire*. Results showed that female participants preferred their mothers as sex educators. Males had no significant preference, except concerning vaginal sexual activity where they preferred their fathers as the source of information. Mothers also actually provided sex-related information to significantly more female than male participants. On the whole, it seems that parents continue to play an important part as far as adolescent sex-education is concerned. However, the role played by fathers in providing sex-related information still remains relatively minimal. Concerning other sources of sex-related information, participants indicated significant preference for the media and trained counsellors. Two factors, namely gender and the participants' type of sexual activity, influenced preference for these. Findings on sexual behaviour as such showed that the majority of participants were sexually active. The prevalence of oral and anal sexual activities was relatively high. Recommendations are made to improve sex education campaigns, for example, that the focus should also be on other sexual activities besides the traditional vaginal.

Key words: adolescent sexual behaviour, sex education, *Sex Education Inventory*, *Sexual Practices Questionnaire*

SAMEVATTING

Ten einde die invloed van geslagsvoorligting op die seksuele gedrag van swart adolessente te bepaal, het 512 deelnemers van albei geslagte die *Sex Education Inventory* en *Sexual Practices Questionnaire* voltooi. Die resultate dui daarop dat vroulike adolessente hul moeders as geslagsvoorligters verkies. Die manlike geslag het nie enige betekenisvolle voorkeur gehad nie, behalwe rakende vaginale seksuele aktiwiteite waar hulle hul vaders as bron verkies het. Moeders het ook betekenisvol meer seks-verwante inligting aan vroue- as mansdeelnemers gegee. In die geheel blyk dit dat ouers steeds 'n belangrike rol in adolessente se geslagsvoorligting speel. Die rol wat deur vaders in die verskaffing van seksverwante inligting speel, is egter relatief min. Wat ander bronne van seksverwante inligting betref, het die deelnemers aangetoon dat die media en opgeleide voorligters die hoogste op hul lys is. Twee faktore, naamlik geslag en die aard van die deelnemers se seksuele aktiwiteit, het hierdie voorkeur beïnvloed. Die resultate rakende seksuele gedrag as sodanig toon dat die meerderheid van deelnemers seksueel aktief is. Die voorkomsyfer van orale en anale seksuele aktiwiteite is relatief hoog. Aanbevelings word gemaak om geslagsvoorligtings-veldtogte te verbeter, byvoorbeeld dat ook op ander seksuele aktiwiteite benewens die tradisionele vaginale gefokus moet word.

LITERATURE REVIEW

The adolescent stage is an important stage of development at which an individual seeks to establish an identity in a number of areas, including sexually. Sexual identity not only involves establishing sex roles, but also expressing sexuality (Sigelman & Rider, 2003).

In their continued search for sexual identity, adolescents tend to experiment with various behaviour such as sexual activity without protection and sexual activity with multiple partners (James, Reddy, Taylor, & Jinabhai, 2004; Hutchinson, Jemmott, Jemmott, Braveman & Fong,

2003; Kelly & Parker, 2000). In the process, they place themselves at risk for sexually transmitted infectious diseases (STIs) and unplanned pregnancy. Jewkes, Vundule, Maforah and Jordaan (2001) provide evidence in this regard. From their study with 544 subjects, 97.4% of the reported pregnancies had not been planned. These pregnancies were associated with frequent unprotected sexual encounters as most of the girls said that they had had sexual intercourse at least once a week. Twenty-six of the girls also acknowledged having had more than one sexual partner at the time of the study. Furthermore, a survey on reproductive health among youth in the Free State indicated that 37.0% of 400 black youths in the survey had had multiple sexual partners. Of these, 12 % had had more than four sexual partners in the previous twelve months prior to the survey (Free State Youth Commission, 2004).

According to Louw and Louw (in press) adolescent sexual behaviour is presently characterised by the first sexual experience occurring at a younger age. A recent review of research on adolescent sexual activity in South Africa revealed that at least 50% of adolescents are sexually active by their sixteenth birthday (Eaton, Flisher, & Aaro, 2003). In addition, Louw and Louw emphasise that, due to the difference in the nature of data collection and a disparity in subjects' truthfulness about their sexual practices, it is almost impossible for researchers to obtain accurate statistics concerning the average age of onset of adolescent sexual activity. However, it remains disconcerting that adolescent sexual debut is occurring at relatively young ages. For example, from her study on primary school students, Visser (2003) reported that the youngest sexually active participants in her study had been only 10 years old. In addition, a survey on sexual behaviour among youth in the Free State province revealed that 6.3 % of 400 black participants had experienced sexual activity before the age of twelve. Overall, male adolescents have been reported to initiate sexual activity at a much younger age than females (Buga, Amoko, & Ncayiyana, 1996).

Adolescent sexual behaviour

Research findings indicate that the major reasons behind the early onset of adolescent sexual activity concern the biological, social, cultural, and socio-demographic contexts. From a biological context, Kelly and Parker (2000) explain that this could be because adolescents

mature sexually at relatively young ages today. Unfortunately, the necessary judgment, insight and control are often lacking at such a young age.

Jewkes et al. (2001) determined that, socially, many female adolescents initiated sexual activity as a sign of affection toward their partners. Other factors that also played a role were fear of rejection, fear of violence from partners and pure curiosity. Another social factor that has been reported to play a role in initiation of sexual activity is the high sex-content material in the media that adolescents access (Kelly & Parker, 2000). The same study also established that some parents had introduced their children to contraception at menarche. Since such a practice curtails the threat of unplanned pregnancy, this could be interpreted as an “incitement” to initiate sexual activity at very tender ages.

Concerning the cultural context, Delius and Glaser (2002) drew from Xhosa and Zulu cultural practices in an attempt to explain the incidence of early sexual activity among adolescents. In these cultures, puberty is highly regarded and is commemorated by acts such as male circumcision. Traditionally, circumcised pubescent males were encouraged to initiate various kinds of sexual acts as a sign that they had attained manhood. These adolescents were allowed to practise supervised, non-penetrative sexual acts that not only precluded pregnancy, but were also a form of sexual release for the males. However, with the breakdown of the traditional family structures and parental authority over adolescents, these practices have also decreased. Many adults in these traditional societies migrated to urban centres in search of work, usually staying away from home for days on end, making it difficult for them to monitor their children’s sexual activities. Accordingly, adolescents’ previously supervised, non-penetrative sexual acts have developed into fully-fledged, often-unprotected intercourse. Van Dijk (2002) found similar trends in her study.

Socio-demographic factors such as the number of rooms in the house, the number of children in the home, an absence of recreational facilities and poverty have also been associated with early adolescent sexual activity. For instance, Vundule, Maforah, Jewkes and Jordaan (2001) found that pregnant teenagers in their study came from families with many children. They proposed that a large family accords less individual parent-child attention and supervision

that, in turn, could pave the way for sexual activity at relatively early ages. In another instance, Senyatsi (2001) noted that children in her study dwelt in one-roomed houses and were more likely to witness adult sexual activity. This could easily arouse children's curiosity and trigger sexual activity. With regard to poverty, Mannah (2002) mentioned that the majority of South African children live in adverse poverty and, for many of them, sexual activity is a means of survival. Mannah gives the example of parents prompting their children to initiate sexual relationships with teachers in exchange for food. Kelly and Parker (2000) reported that children in their study from impoverished areas resorted to sexual activity due to lack of recreational facilities that would have offered them external stimulation.

In most cases, initial sexual activity prompts continuing sexual activity, which could lead to adverse consequences like unplanned pregnancies and sexually transmitted infections such as HIV/AIDS. Studies such as Buga et al. (1996) and Oni, Prinsloo, Nortje, and Jourbert (2005) have revealed that a number of sexually active adolescents do not practise contraception let alone protection from sexually transmitted infection. In this regard, studies have revealed that exposure to sex education campaigns does not necessarily lead to an increase in the use of contraception and protection (Mannah, 2002; Visser, Schoeman & Perold, 2004). In line with these findings, James et al. (2004) reported that although 85% of sexually active students in their study agreed that condoms should be used every time one had sexual intercourse, only 46.2% reported consistent usage. Nearly 20% of the sexually active females still had sexual activity with their partners although these partners had refused to use condoms. Also, 49.3% of sexually active males simply preferred not to use condoms. A survey in the Free State province, also showed a discrepancy between knowledge levels (e.g. about HIV/AIDS) and the practice of safe sex measures such as the use of condoms during sexual activity (Free State Youth Commission, 2004). One may deduce from the aforementioned research that continued high-risk sexual behaviour is not necessarily a result of a lack of knowledge about the adverse consequences, but the failure to implement the acquired knowledge.

Safe sex practices

One remaining aspect of great concern is the possible effect of existing social circumstances on the practice of safe sex among adolescents. Research has established that prevailing social circumstances such as poverty and socialisation could hamper the tendency to take precautions even among informed and willing individuals. For example, Ntozi, Ahimbisibwe, Mulindwa, Ayiga, and Odwee (2001) reported that prostitutes in their study knew about and often carried condoms. However, many of them would forego using them when a client offered to pay more money for unprotected sex. In addition, Mannah (2002) determined that female adolescents in her study encountered forced unprotected sex, to which the victims seemed to have come to succumb. She maintained that the underlying explanation for such an occurrence could lie within socialisation. Females are culturally expected to be caring and submissive, while males are usually controlling and aggressive. For this reason, males employ aggressive methods in their attempt to obtain women for the purpose of sexual satisfaction. Varga (1997) adds that violence instils fear in the women making it difficult for them to negotiate safe sex with their partners. Also, the views held by society may hamper efforts toward safe sex negotiation. For example, in some societies a woman who carries condoms is perceived to be promiscuous (Macphail & Campbell, 2001).

Another factor that has contributed to a reduced amount of safe sex practice among adolescents is being acquainted with a sexual partner. For instance, Macphail and Campbell (2001) reported that young people in their study saw little reason for continued condom use especially in steady sexual relationships where the partner was well known to them. To these adolescents, use of condoms in steady sexual relationships was deemed a violation of trust. This was despite the lack of knowledge about one's partner's sexual history or HIV status even for recently acquainted individuals.

Perceived personal invulnerability to, for example, HIV/AIDS infection may also account for minimal use of preventive measures. According to Louw and Louw (in press), insusceptibility is an example of egocentrism that could be expressed in the form of personal fables. This causes individuals to think that AIDS can happen to others but not them. In one instance,

Macphail and Campbell (2001) established that 70% of sexually active young men in their study saw little chance of being infected with HIV despite the high infection rate reported in that area. Moreover, personal invulnerability may also be influenced by community practices. For example, Kelly and Parker (2000) reported that some communities in their study relegated AIDS to other communities. Victims' bodies were hidden from public view and the cause of death in such communities would be attributed to witchcraft. Since individuals in these communities got little or no chance to witness the effect of AIDS, they were inclined to perceive themselves as less at risk for such infection.

Sex education

The indication is that the major sources of sex education include educators, parents, media (newspapers, radio and television) and peers. According to Mannah (2002), schools are the ideal centres for sexual education for a number of reasons. Firstly, educators and learners are in almost daily contact. Secondly, educators are highly skilled and would stand a great chance of succeeding given their vast influence on learners. It is also possible to reach children from an early age at school. However, Mannah also mentions major limitations behind schools as a medium for sex education. For instance, some of the educators lack the proper training; they do not have the ability to translate English terminology into local languages; if they make an effort to teach sex education to the students they are negatively stereotyped by society; and lastly, the educators themselves are not always ideal role models for the children. In addition, Visser et al. (2004) evaluated HIV prevention in schools and found that on the whole, although there was an increase in the knowledge level there was no concomitant major change in behaviour.

With regard to parents as sources of sex-related information, research has established that in many cases, parents are uncomfortable when it comes to conducting sex-related discussions with children (Diiorio, Kelly, & Hockenberry-Eaton, 1999; Kelly & Parker, 2000). Moreover, the tendency for some parents to use threats and punishment in an attempt to discourage children's sexual activity has served instead to exacerbate high-risk sexual behaviour, to such an extent that children have been reported to engage stealthily in unprotected sexual acts

(Macphail & Campbell, 2001). On the other hand, some parents do show concern for the sexual health of their children. For example, some mothers in rural areas have been reported to introduce their daughters to contraception at the earliest sign of menarche (Kelly & Parker, 2000).

An area of parenting that has been strongly associated with adolescent sexual risk-taking is parent-adolescent communication on sexual matters. Existing literature has reported mixed findings in this regard. For example, Karofsky, Zeng and Kosorok (2000) determined that adolescents who reported that they had frequent sex-related communications with their parents were more likely to initiate sexual activity at an older age. Hubner and Howell (2003), however, found no direct relationship between these variables. Nevertheless, the researchers proposed that significant results are more likely to be obtained when the variable of parent-adolescent communication is considered in terms of the timing, style and content of the communication. To this end, Clawson and Reese (2003) found that timely parent adolescent sex-related discussions were likely to lead to reduced sexual risk-taking behaviour. More specifically, adolescents who had discussed sex-related issues with their parents before the onset of sexual activity were more likely to have initiated sexual activity at an older age, to have had fewer sexual partners and to have used contraceptives consistently.

Concerning the style of communication, it was established that when parents employ a friendly and attentive communication style in relaying sex-related information to adolescents, the latter are likely to perceive this as supportive. This will enhance sexually responsible behaviour as opposed to when the style of communication is threatening (Mueller & Powers, 1990).

Research on the content of sex-related discussions between parents and children has revealed that some parents emphasise the negative outcomes of sexual risk-taking such as unplanned pregnancy and sexually transmitted infections (Diiorio et al., 1999; Miller, Kotchick, Dorsey, Forehand & Ham, 1998). This leaves adolescents deficient in knowledge concerning safe sex negotiation, how to handle social pressures to engage in sexual activity, and the motivation to practise protected sex. The inability of many parents to conduct balanced sex-related

discussions has not been precisely accounted for. However, it could be ascribed to their own lack of accurate information concerning sex-related matters.

The role of fathers in sex education has also received much attention. Generally, fathers have been found to play a minimal role as far as information dissemination to adolescents is concerned. For example, Dutra, Miller and Forehand (1999) reported that adolescents in their study discussed more sexual matters with mothers than with fathers despite the fact that these children hailed from two biological-parent homes. Moreover, studies such as Diiorio et al. (1999) have shown that sons would rather discuss some sex-related topics such as wet dreams with their fathers than their mothers as they feel the fathers identify more with their sons' sexual needs than mothers. The same researchers attribute the phenomenon that fathers play a minimal role in sex-related discussions with adolescents to the fathers' prolonged absence from children during development. This not only weakens the children's attachment to fathers, but possibly also the communication channels between them. Kirkman, Rosenthal and Feldman (2002) further investigated the reasons behind fathers' minimal role in sex-related communication with adolescents. They established that, on the whole, fathers found the subject of sexuality very difficult to discuss with their children. In some families, the subject was considered taboo, while in others, fathers felt embarrassed to raise issues on sexuality especially in the presence of their daughters. Also, some fathers assumed that their wives had addressed the topic as they were more involved and spent more time with the children. The discourse that women are better communicators and more intimate than men, and therefore in a better position to discuss sexuality, also prevailed in many of the families interviewed. In South Africa, Jewkes et al. (2001) also found from their study that most pregnant adolescents' fathers were absent. In such situations, it is unlikely that these adolescents had ever received any sex-related guidance from their fathers.

The impact of the media as a source of sex education has been highly commended. However, access to the media remains a problem, especially among most poor populations. The most prominent sexual health strategies promoted through the media include abstinence, faithfulness to one partner and use of condoms (Kelly & Parker, 2000). In addition to the

media, peer sexual education is also lacking in preventive knowledge and is more laden with disparaging messages on sexual health practices (Macphail & Campbell, 2001).

Buga et al. (1996) recommend a need for continued dissemination of sexual information to adolescents as this would facilitate further understanding of adolescent sexual behaviour. In order to make a contribution in this field, the present study aims at investigating the relationship between sex-education and the sexual behaviour of black adolescents. More specifically, the focus will be on the preferred and actual sources of sex-related information; the sex-related topics discussed between participants and their parents; the factors that discourage parent-adolescent sex-related discussions; adolescents' satisfaction with the mode of sex education; their satisfaction with the current knowledge pertaining to sex; and parent-adolescent rapport.

METHODOLOGY

Participants. A convenience sample was used which consisted of 512 black adolescents aged 15 to 19 years. These were selected from six high schools in the Mangaung area of the Free State province. Both male and female participants were included. Most of the participants were Sesotho speaking, although other languages such as Setswana, IsiZulu and IsiXhosa were also spoken. Permission to use this sample was obtained from the Free State Department of Education and the principals for the high schools considered.

Measures. Two measuring instruments were used.

- *Sex Education Inventory* (SEI, Bennet & Dickson, 1998). Items from this instrument were adapted to measure the preferred and actual sources of sex-related information and family environment for acquiring knowledge on sex-related matters. The items in the original SEI were formatted to allow for better comprehension by the participants. For example, a *yes/no* response was used to determine the sex-related topics discussed between participants and each parent,

and at school. The same response mode was employed to determine the factors that discouraged participants from discussing sex-related topics with their parents. Likert type scales, including 3-Point, 4-Point, 5-Point and 7-point scales were used to determine parental caution, rapport with each parent in discussing sex-related matters, affection shown by each parent when discussing sexuality with adolescents, and adolescents' satisfaction with the mode of sex education and with their current knowledge pertaining to sex respectively. The Sexual Activities Inventory as outlined in the SEI was excluded from this particular questionnaire because some of the items therein overlapped with those in the self-report sexual practices questionnaire that was also used in the present study. The rest of the items were not relevant to the objective of the current study.

American psychometric reports on the SEI are promising. The SEI has high test-retest reliability (0.87 and 0.74 for ordinal and nominal scales respectively). Bennett et al. (in Bennett & Dickson, 1998) demonstrated evidence for construct validity for this instrument when they established a correlation between the aspects for which parents are perceived to be responsible and the aspects for which they are actually responsible ($r=0.32$ for males and $r=0.47$ for females). No South African data were available in this regard.

- *Sexual practices questionnaire.* The researcher developed a self-report questionnaire on sexual behaviour, especially the sexual practices of adolescents. Questions were developed from relevant existing literature regarding sexual practices (Buga, et al., 1996; Varga, 1997; Visser, 2003; Vundule et al., 2001). Examples of the items included a biographical section, the age of onset of sexual activity, frequency of sexual activity, number of sexual partners in the last six months, safe sex practices, pregnancy, and the influence of peers, parents, culture and religion on sexual practices. The researcher was also personally present during the administration of the questionnaires in each of the schools so that she could address any problems related the questionnaire. In addition, given the fact

that English was only a second or even third language for most of the participants, care was taken to make the items as user-friendly as possible.

Statistical analysis. The demographic composition of the sample was established by means of frequencies of the various subgroups. Descriptive statistics (means and standard deviations) were calculated for the two measuring instruments. Descriptive statistics were also calculated for the various demographic subgroups in order to compare their scores. To further these comparisons, t-tests, and analysis of variance (ANOVA) were used to compare the mean scores of demographic subgroups on the various scales.

RESULTS AND DISCUSSION

The demographic results of the study are reported in Figure 1 and Table 1. It should be noted that not all the participants answered all the questions. As a result, there was a variation in the total number of responses recorded for each question.

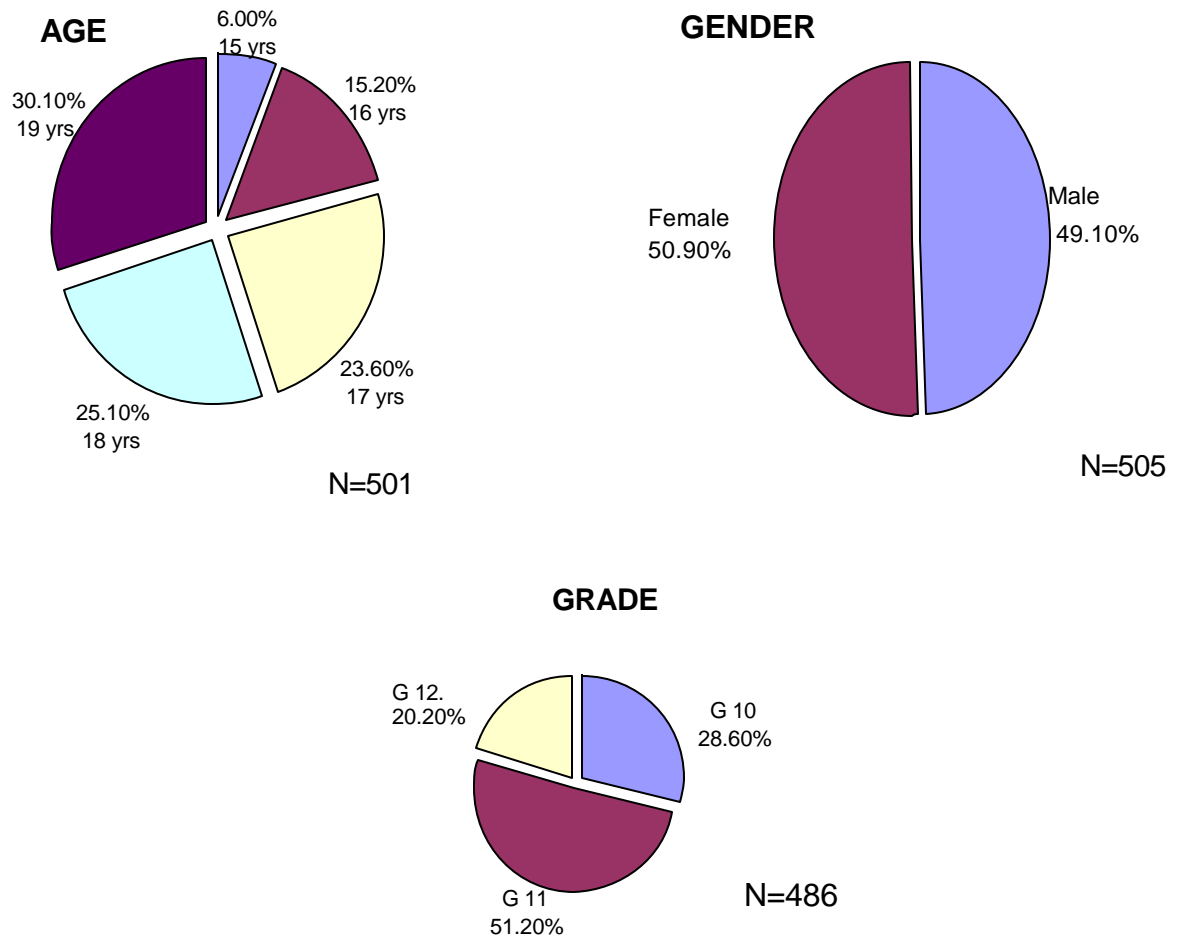


Figure 1. Age, gender and grade of participants.

Figure 1 reflects the following:

- Most predetermined age groups in the sample were relatively well represented. The majority of participants were between 17 and 19 years while the smallest groups were the 15 and 16 year olds. The average age for this sample was 17.58 years.

- Gender had equal representation. The percentage of females and males was approximately equal.
- Most participants were in grade 11, about twice as many as those in grades 10 and 12 respectively. This was because the data were collected at a time when grades 10 and 12 were preparing for final exams and the schools were hesitant to make them available to participate in the study.

Certain characteristics concerning participants' home environment are reflected in Table 1.

Table 1: The caregiver, number of household members, and the number of separate bedrooms.

Care giver	N	%	Members	N	%	Bedrooms	N	%
Both mother & father	171	33.4	one	54	10.6	None	23	4.5
Mother only	210	41.0	Two	92	18.1	One	76	15.0
Father only	23	4.5	Three	110	21.7	Two	226	44.5
Other	103	20.1	More	111	21.9	Three	115	22.6
						More	68	13.4
Total	507	100	Total	508	100	Total	508	100

Table 1 shows that almost 10 times more participants indicated that their mothers rather than their fathers were their caregivers. Only about a third of participants stayed with both biological parents. Over 60% of participants stayed in homes with more than one member in the house. About 80% of participants hailed from homes with at least two bedrooms. The finding on caregivers attests to that by Jewkes et al. (2001) and Nicholas and Tredoux (1996). They mentioned that the majority of participants in their study had absent fathers. Although the reasons for the fathers' absence were not the focus of the present study, they could involve labour migration, divorce, desertion, imprisonment, and hospitalisation (Delius & Glaser, 2002; Mboya & Nesengani, 1999).

Other demographic findings in the current study indicated that more than 70% of participants affirmed the presence of recreational facilities such as soccer field (N=505), a medical clinic (N=504) in the community, as well as a television set (N=511) in their home. Unfortunately,

no comparative data are available (Department of Statistics, personal communication, 24 March, 2006).

Sex Education

The sources of sex-related information, discussion of sex-related topics with parents, and the factors that discourage participants' discussions with parents will be discussed next.

a) *The sources of sex-related information are presented in Figure 4.*

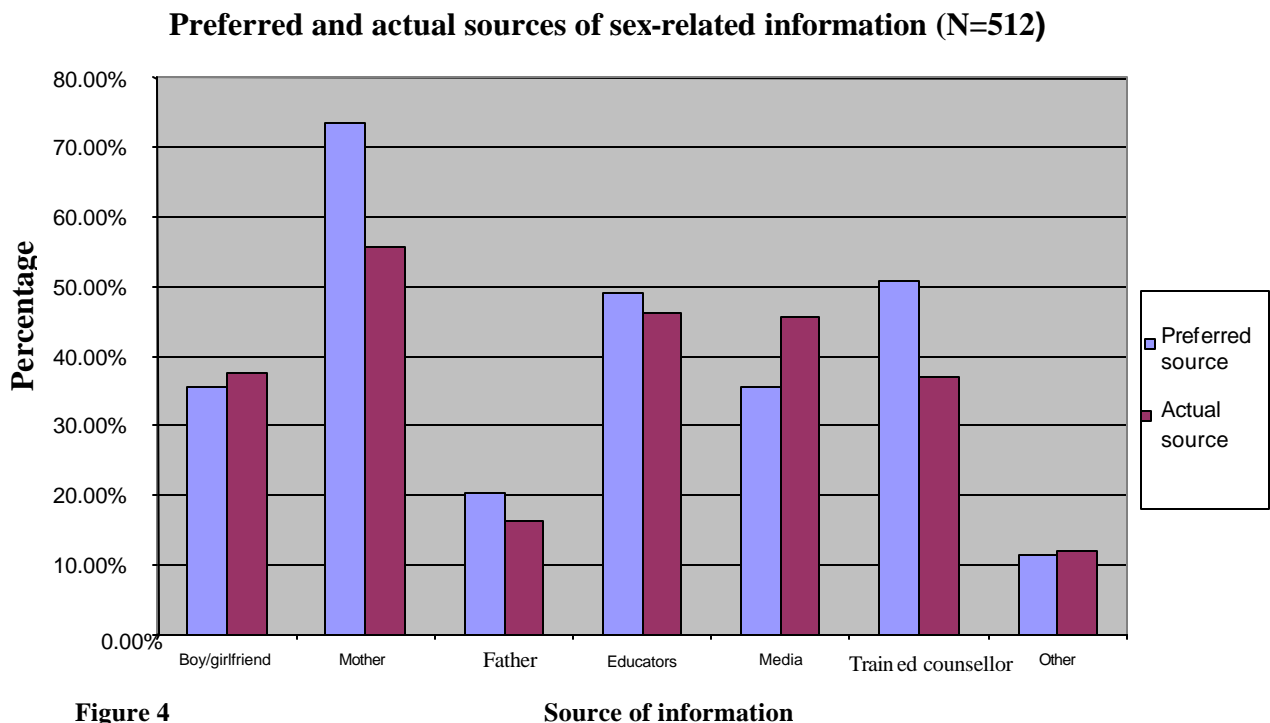


Figure 4

Source of information

From Figure 4, it is clear that the majority of participants preferred mothers as a source of sex-related information. Preference for mothers as a source of sex-related information is almost four times higher than that for fathers. The preference for mothers as sex-related informers confirms a study by Diiorio et al. (1999). This could be explained by the fact that mothers were the predominant caregivers for the majority of participants in this study. According to Kirkman et al. (2002), mothers are also better communicators, more intimate and more involved in children's lives.

With regard to parents as actual sources of sex-related information, nearly 60% of participants cited mothers. This is almost three times that of fathers. Again, this could be ascribed to the mothers' position as the primary caregivers. Their accessibility would increase the likelihood of their transmitting values and information, including that of a sexual nature, to their children (Taris & Semin, 1998).

The second most preferred source of sex-related information was trained counsellors, which was closely followed by educators. This could be attributed to findings that both trained counsellors and educators are generally well informed and would therefore be in an ideal position to distribute accurate sex-related information to adolescents (Ford, Millistein Eyre, & Irwin, 1996; Mannah, 2002). The third most preferred source was shared by boyfriends/girlfriends and the media. As it is assumed that boyfriends/girlfriends in the current study are also the participants' peers, it is informative to note that, although peers play a very important role in the adolescents' lives, they are not primarily preferred as a source of sex-related information. The present findings concerning preference for these two groups (i.e. boyfriends/girlfriends and the media) are consistent with a South African study by Nicholas and Tredoux (1996).

The second most numerous actual information disseminators were educators and the media. These were cited almost equally. They were followed by boyfriends/girlfriends and trained counsellors, whose ranking was also almost equal. It is also evident that both the boyfriends/girlfriends and the media were more the actual than the preferred sources of sex-related information. Mannah (2002) reported that schools were ideal centres of sex education. Results in the current study appear to confirm this report as educators were the actual sources of information almost as many times as they were preferred sources. A possible reason that the media was an important source is that the majority of participants in the present study had a television in their homes. This creates a situation where adolescents are exposed to material with a relatively high sexual content. Participants could also have turned either to their boyfriends/girlfriends or trained counsellors depending on the nature of information they required. Ford et al. (1996) reported that adolescents would turn to health professionals for

preventive information, especially on STIs, while Campbell and Macphail (2002) reported that peers play an important role as far as general sex-related information is concerned.

b) Results pertaining to the discussion of sex-related topics with parents were as follows:

- Participants were required to indicate which of the mentioned sex-related topics they had discussed with their parents. These include personal hygiene, menstruation, pregnancy/delivery, sexual intercourse, birth control (i.e. where to obtain and how to use birth control), sexually transmitted infections (STIs) such as syphilis and HIV/AIDS, prevention of STIs, abortion, masturbation, what to look for in a potential partner, and homosexuality.
 - ◆ Approximately 60% of participants (N=475) reported that they had discussed the following topics with their mothers: personal hygiene, menstruation, pregnancy/delivery, prevention of STIs and what to look for in a potential sexual partner. However, it seems that certain topics (i.e. sexual intercourse, abortion, masturbation and homosexuality) are still taboo as the participants had not discussed them with their mothers. About 40% of participants had never discussed any of the mentioned topics with their mothers. Reasons for this are outlined in Table 2.
 - ◆ Only two of the mentioned topics, namely STIs and what to look for in a potential partner, had been discussed by the participants and their fathers. However, even for these cases the percentage was relatively small (almost 35%). The majority (about 65%) of participants had never discussed any of the remaining topics with their fathers. This could also be ascribed to the factors mentioned in Table 2.
 - ◆ The sex-related topics discussed in common with both parents include STIs and what to look for in a potential partner. 43.3% of participants discussed these topics more often with mothers than fathers. A possible reason for the parents' discussion of these topics could be that both parents were worried about their children's sexual welfare. Diiorio et al. (1999) also found that both parents in their study discussed topics such as STIs, pregnancy and dating

because they were afraid that their children would become victims of consequences related to these aspects.

- ◆ Overall, 40% of participants had not discussed any of these topics with both their parents at all. This confirms a report by Eaton et al. (2003) that parents and their children did not discuss sex-related matters.
- ◆ However, 50% of participants had discussed all the mentioned topics to varying degrees with educators.
- Concerning the initiation of sex-related topics, almost 10% of participants (N=493) initiated discussions with their fathers, 6% indicated that their fathers initiated such discussions, while 15.2% of participants maintained that this responsibility was shared with their fathers. For these participants, discussions had last taken place between the ages of 13 and 15 years. On the other hand, results pertaining to discussions with mothers showed that 20% of participants (N=494) initiated such discussions. For 16.8% of participants, mothers initiated the discussions while for 23.3% of participants the responsibility was shared with their mothers. These discussions occurred when participants were between 13 and 19 years. From these findings, it could be deduced that parents generally did not initiate sexual discussions before their children reached 13 probably because they underestimated their children's sexual activity (Miller & Whittaker, 2001).
- The majority of participants (51.7%, N=491) preferred to discuss sex-related matters with both parents. About 26% preferred discussions with mothers only and 20% maintained that sex-related discussions should depend on the gender of the children. In other words, the father should be responsible for the male and the mother for the female children. The findings agree with a study by King and LoRusso (1997).

c) *The factors that discouraged participants from holding sex-related discussions with parents are presented in Table 2:*

The factors that discouraged participants from holding sex-related discussions with their parents are uniformly spread for both parents. More than 50% of participants were discouraged by embarrassment, by fear of their parents' probable reaction, and their asking

why the participants wanted to know about sex-related matters. The least important factors (less than 40%) were that parents would get angry if participants asked sex-related questions and that parents would tell lies concerning sexual matters. These findings confirm other reports concerning the discussion of sex related issues between parents and their children. (Eaton et al., 2003; Kirkman, et al., 2002).

Table 2: Factors that discouraged participants from discussing sex-related matters with parents

Source of discouragement	Father			Mother		
	<i>f</i>	N	%	<i>f</i>	N	%
Was embarrassed when I asked	195	468	41.7	184	477	38.6
Did not know how to answer my questions	204	460	44.3	190	475	40.0
Got angry when I asked	160	459	34.9	129	474	27.2
Told me things that were not true	146	457	31.9	126	467	27.0
Gave me a lecture instead of listening	195	460	42.4	206	469	43.9
Asked me why I wanted to know	250	456	54.8	242	469	51.6
Was not around when I had questions	226	458	49.3	201	470	42.8
Seldom had a chance to talk in private	191	457	41.8	210	465	45.2
Never brought up sex-related subjects	224	459	48.8	219	470	46.6
I was embarrassed to ask	278	465	59.8	255	476	53.6
I was afraid of probable reaction	278	460	60.4	259	475	54.5

Other findings concerning sex-related information revealed that a substantial percentage of participants (almost 40%, N=473) were dissatisfied with the current mode of sex education while 30% of participants were dissatisfied with their current knowledge regarding sex-related matters. It is therefore understandable that 42% of participants (N=488) indicated that they would not emulate the kind of sex education they received when it comes to educating their own children about sex.

Sexual behaviour

As could be expected from a questionnaire of this nature, several participants omitted certain questions, which resulted in differences in the total number of responses recorded per question.

- Prevalence of sexual activities was as follows: oral sex: 41.2% (N=413); anal sex: 14.9% (N=362); vaginal sex: 57.2% (N=451). Significantly more male ($p < 0.05$) than females had engaged in oral and vaginal sexual activities. The findings are consistent with other South African studies on adolescent sexual activity (Olivier, 1996; Simbayi, Kalichman, Jooste, Mfecane, & Cain, 2005).
- Most sexually active participants seemed to have had their first sexual encounter between the ages of 15 and 16 for all sexual activities. This finding confirms other South African studies such as Jewkes et al. (2001) and Oni et al. (2005). The present study also established that a relatively small percentage of the participants had initiated sexual activity in pre-adolescent years (oral sex: 6.9%, N=379; anal sex: 3.9%, N=311; vaginal sex: 7.2%, N=418). The finding aligns with those by Visser (2003) and the Free State Youth Commission (2004). Such incidence may be attributed to early sexual maturation (Louw & Louw, in press).
- Results on pregnancy indicated that 16.7% of 264 males had made a girl pregnant and almost 10% of females (N=268) had fallen pregnant. The number of pregnancies reported by females is much lower than that established in Buga et al.'s (1996) study. The drop in reported pregnancies could be attributed to the positive outcomes of sex education campaigns since Buga's study. Another finding from the current study that confirms this assertion is that 56.8% of participants (N=479) reported that they had used protection every time they had had sex.
- A total of 51.6% (N=370), 34.1% (N=308) and 64.1% (N=404) of the participants had continued with oral, anal and vaginal sexual activities since the first time. The overall frequency of oral and anal sexual activities was relatively rare compared to vaginal sexual activity, which was mostly occasional. The relative infrequency of oral and anal sexual activities is also reported in Van Dijk (2002) and Simbayi et al. (2005) studies. According to Van Dijk, some adolescents find oral sex to be repulsive and

dirty. Therefore, it could be said that the initial oral and anal sexual activities in the present study might have been due to curiosity. These could have been subsequently discontinued for the same reason as established by Van Dijk.

- The majority of participants reported that the initial sexual encounter had been with boyfriends (oral sex: 33.0%, N=345; anal sex: 21.9%, N=329; vaginal sex: 51.8% N=409). Only a small percentage of participants reported sexual activity with family members (oral sex: 2.6%; anal sex: 2.4%; vaginal sex: 2.6%) and strangers (oral sex: 1.7% anal sex: 2.4%; vaginal sex: 4.4%). This finding confirms that by Jewkes et al. (2001) that the first sexual encounter for most of the participants in their study had been with boyfriends.
- Concerning the number of sexual partners in the six months prior the study, the majority of participants indicated that they had engaged in sexual activity with more than one partner (oral sex: 22.2%, N=311; anal sex: 16% N=294; vaginal sex: 28.4%, N=390). Significantly more male ($p<0.05$) than female participants had sex with more than one partner. These findings align with other studies such as Peltzer and Promtussanon (2005) and Vundule et al. (2001). A possible explanation for the similar findings could lie within existing cultural discourses concerning adolescent sexuality (Delius & Glaser, 2002). Further investigation showed that over 50% of participants of both genders agreed with the opinion that it would more be acceptable for boys to be sexually active than girls. In addition, cultural norms were found to have a significantly stronger ($p<0.05$) influence over boys than girls. A possible explanation for this could be that boys, being more sexually active than girls, use cultural norms to rationalise their sexual behaviour.
- The reported incidence of forced sexual activity was as follows: oral sex: 6.1%, N=342; anal sex: 6.5%, N=353 and vaginal sex: 9.2 %, N=414. As there is a tendency for victims of forced sexual activity not to report the incidents (Ackerman & De Klerk, 2002), these results should be viewed in perspective. According to Andersson et al. (2004), it is less likely for an individual to refer to forced sexual activity with an acquaintance as coercive. Participants in this study had had most sexual encounters with boyfriends/girlfriends and it is possible that they overlooked probable forceful sexual acts because they knew the sexual partners.

- Over 50% of participants were confident that peers were sexually active (oral sex, N=310; anal sex, N=308; vaginal sex, N=397). This view was more significant among boys ($p<0.01$) than girls with regard to vaginal sex. The findings confirm those of Visser (2003).
- 88.8% of participants (N=489) were of the opinion that both partners should be involved in sex-related decision-making while 7.6% and 3.6% maintained that boys and girls should make the decisions respectively.
- The following percentages reflect the number of participants who agreed that they would engage in sexual activity in a committed relationship respectively: oral sex: 40% N= (331); anal sex: 30% (N=328) and vaginal sex: 50% (N=406). Significantly more boys ($p<0.01$) than girls held this opinion with regard to vaginal sexual activity. These results align with findings by Van Dijk (2002).
- Almost 10% of participants (N=496) had given or received material compensation in exchange for sexual favours. This could be regarded as particularly disturbing as it could indicate a tendency for demeaning sexual behaviour among adolescents. This area of study requires further investigation.
- Of the 490 participants who attempted this question, only 20.2% of the sexually active participants believed that they were unsusceptible to HIV/AIDS. Significantly more boys ($p<0.05$) than girls perceived a low risk for sexually transmitted diseases. This could possibly be explained by the fact that boys, more than girls, are inclined to risky and reckless behaviour (Bradley & Wildman, 2002). Present results confirm other research findings such as Macphail and Campbell (2001) and James et al. (2004).
- Most participants (55.3%, N=483) reported that religion/spirituality did not play any role at all in as far as their sexual practices were concerned. This finding differs from existing literature regarding the role of religion in preventing high-risk sexual behaviour (Kelly & Vencatachellum, 2003). This area calls for further future investigation.
- Concerning safe sex practices, condoms (71.4%, N=500) were the most prevalent form of protection against STIs and unplanned pregnancy. The majority of participants (73.7%, N=475) found these to be easily available in their community. 78.6% (N=508) alleged that it would be easy for them to convince sexual partners to use protection

every time they had sex. Nearly 50% (N=500) of participants disagreed with the myth that condoms reduce sexual pleasure. The majority of participants supposed that peers (56.4%, N=491) and parents (74.7%, N= 509) would approve of their (participants') use of protection. A vast majority 83.0% (N=507) agreed that girls could carry protection (e.g. condoms) to give to their partners when necessary. The present results differ from previous findings (e.g. Buga et al., 1996; Macphail & Campbell, 2001). The difference could possibly be an indication of the success of sex education campaigns since the previous studies.

Participants' gender, sexual activity and sources of sex-related information

In order to cast more light on the relationship between these three variables, a two-way analysis of variance was carried out to investigate the interaction between gender (male vs. female), the prevalence of participants' sexual activity (sexually active vs. not sexually active), and preference for sources of sex-related information (mothers and fathers). The results are reflected in Table 3. An important aspect of this study was the relationship between parents and adolescents (results reported in article 1 of this dissertation). It was therefore decided to focus mainly on the parents (i.e. mothers and fathers respectively). However, a brief summary will also be provided concerning the other major sources of sex-related information (i.e. boyfriends/girlfriends, educators, the media and counsellors).

Table 3: The interaction between gender and sexual activity, and preferred sources of sex-related information

Preferred sources of sex related information	Gender and sexual activity	df	Mean square	F	Significance 2-tailed
Mothers	gender	1	62.608	48.950	0.000**
	oral sex	1	7.290	5.700	0.018*
	gender × oral sex	1	0.065	0.051	0.822
	gender	1	28.731	22.666	0.000**
	anal sex	1	0.740	0.584	0.446
	gender × anal sex	1	0.642	0.507	0.477
	gender	1	64.038	51.918	0.000**
	vaginal sex	1	1.649	1.337	0.248
	gender × vaginal sex	1	0.000	0.000	0.992
Fathers	gender	1	2.945	0.053	0.016
	oral sex	1	0.385	0.792	0.376
	gender × oral sex	1	0.927	1.906	0.172
	gender	1	1.167	2.590	0.113
	anal sex	1	0.242	0.537	0.467
	gender × anal sex	1	0.242	0.537	0.467
	gender	1	2.198	5.292	0.024*
	vaginal sex	1	0.093	0.225	0.636
	gender × vaginal sex	1	1.080	2.601	0.111

*p<0.05; **p<0.01; × interaction between gender and sexual activity

Concerning all the above-mentioned sexual activities, gender evinces a significant effect (p<0.01) concerning the preference for mothers as information disseminators. Investigation of mean scores indicated that female participants scored higher than males in this respect ($\bar{X} = 2.33$ vs. $\bar{X} = 1.44$). In other words, females, more than male participants, preferred mothers to inform them about sexual matters. The only sexual activity where gender had a significant (p<0.05) effect with regard to preference for fathers was vaginal sex. Results on mean scores in this regard showed that male participants scored higher than female participants ($\bar{X} = 1.38$ vs. $\bar{X} = 1.08$). In other words, more males than females preferred fathers as sexual informers. Such an outcome is understandable given the fact that mothers are believed to identify better with the sexual needs of daughters than those of sons, while fathers with the sexual needs of sons than daughters (Dutra et al., 1999). It is also evident from Table 3 that oral sex had a significant effect as far as preference for mothers as sexual

informers is concerned. More specifically, the mean scores for participants who had already engaged in oral sexual activity were higher than for participants who had not. This means that sexually active participants preferred mothers to inform them on matters concerning oral sex. These results could be attributed to the participant's belief that oral sex has fewer emotional, physical, and moral risks and could therefore be a less dangerous alternative to especially vaginal sex (Halpern-Felsher, Cornell, Kropp & Tschann, 2005; Remez, 2000). As has been established in the current study, oral sexual activity was relatively rife (41.2%). According to Halpern-Felsher et al., oral sex is rarely addressed in many societies. Therefore, it should not be surprising that sexually active participants would want to obtain more information in this regard, especially from their mothers.

Investigation regarding gender and sexual activity, and other sources of information revealed that:

- a) For all the above-mentioned sexual activities gender had a significant effect for participants who preferred the media as a source of sex-related information. Significantly more females than males preferred the media as a source of sexual information (oral sex: $p < 0.05$; anal sex: $p < 0.01$; vaginal sex: $p < 0.01$). The results demonstrate that both girls and boys display a certain degree of curiosity concerning sexual matters. However, due to the nature of sexual matters, the genders satisfy their curiosity in different ways. It is possible that girls, being generally sexually reticent compared to boys, could have been drawn toward less interactive forms of the media such as newspapers and television to satisfy this curiosity.
- b) Significantly more ($p < 0.05$) sexually active (oral sex and anal sex) participants preferred the media as a source of sexual information than non-sexually active participants. The present findings are similar to a South African study by Nicholas and Tredoux (1996) regarding general sexual activity. It should be noted that existing empirical studies have focused their attention largely on vaginal sexual activity and results have been extrapolated to oral and anal sexual activities. This leaves a void in the understanding of the effects associated with oral and anal sexual activity (Halperin, 1999).

- c) There was a significant interaction effect between gender and anal sexual activity for participants who preferred the media as a source of sexual information. Given the dearth of information regarding this type of sexual activity in South Africa, this outcome necessitates further investigation in future.
- d) Significantly more ($p < 0.05$) participants who were not anally sexually active preferred to obtain sex-related information from trained counsellors compared to those who were sexually active. There was also a significant interaction effect between gender and anal sexual activity, for participants who preferred counsellors as a source of information on sexual matters. Because of the stigma and secrecy associated with the practice of anal sexual activity in South Africa (Halperin, 1999), scanty empirical data exist to allow for a comparative explanation of the present results.
- e) Concerning the preference for boyfriends/girlfriends as sources of sex-related information, no significant results were established regarding the effects of gender and sexual activity. Similar results were obtained for educators.

Results pertaining to the interaction between gender, sexual activity and parents as actual sources of sex-related information are presented in Table 4.

Table 4: The interaction between gender and sexual activity, and actual sources of sexual information

Actual source of sexual information	Gender and sexual activity	df	Mean square	F	Significance 2-tailed
Mothers	gender	1	7.972	6.380	0.012*
	oral sex	1	2.568	2.055	0.153
	gender× oral sex	1	10.730	8.587	0.004**
	gender	1	1.915	1.447	0.231
	anal sex	1	0.315	0.238	0.626
	gender× anal sex	1	1.421	1.074	0.301
	gender	1	13.374	10.274	0.002**
	vaginal sex	1	0.719	0.552	0.458
	gender× vaginal sex	1	4.616	3.546	0.061
Fathers	gender	1	0.002	0.003	0.953
	oral sex	1	0.338	0.686	0.411
	gender× oral sex	1	0.639	1.296	0.260
	gender	1	0.012	0.021	0.886
	anal sex	1	0.466	0.818	0.370
	gender× anal sex	1	0.001	0.002	0.969
	gender	1	0.220	0.455	0.502
	vaginal sex	1	0.767	1.583	0.212
	gender× vaginal sex	1	0.049	0.102	0.750

*p<0.05; **p<0.01; × interaction between gender and sexual activity

Gender had a significant effect for participants whose actual source of sex-related information were mothers (oral sex: p<0.05; vaginal sex: p<0.01). More specifically, descriptive statistics on mean scores indicated that female participants scored higher than male participants did. In other words, more female than male participants actually received sex-related information from their mothers. A possible explanation could be the mothers' (as primary caregivers) concern that females directly bear the consequences of sexual risk-taking, such as unplanned pregnancy (Diiorio et al. 1999). The lack of information on oral sexual activity cannot allow for an appropriate explanation for the present outcome. This emphasises the importance of future investigation on oral sexual activity.

The only other actual source of sex-related information where significant (p<0.05) effects of sexual activity were established was the media. Non-sexually active participants obtained higher mean scores than sexually active (vaginal sex) participants. This means that non-

sexually active participants actually received sex-related information from the media. Kelly and Parker (2000) established that messages on abstinence were largely spread through the media. The present outcome could be an example of a positive impact that such media messages have had on South African adolescent sexual practices.

The general and sex-related rapport with each parent was also investigated. Results showed that participants had more general rapport with mothers ($\bar{X} = 13.0, s = 2.90, N = 447$) than with fathers ($\bar{X} = 11.4, s = 3.20, N = 448$). A similar observation was made regarding sex-related rapport (mothers, $\bar{X} = 19.50, s = 3.80, N = 429$; fathers, $\bar{X} = 16.90, s = 3.9, N = 429$). Results relating to parental permissiveness showed that on the whole, parents exercised greater caution and instruction with female ($\bar{X} = 6.62, s = 1.94, N = 227$) than male participants ($\bar{X} = 6.11, s = 2.05, N = 181$) regarding the appropriate behaviour when expressing sexuality. These results provide further evidence that the participants prefer mothers to fathers as sex-related informers.

An independent t-test was performed to compare the prevalence of sexual activity with regard to the respondents' sex-related rapport with each parent. The results are presented in Table 5.

Table 5: The relationship between sex-related rapport and prevalence of sexual activity

Sexual activity		Sex related rapport									
		Mother					Father				
		n	\bar{x}	t	df	Significance 2-tailed	n	\bar{x}	t	df	Significance 2-tailed
Oral sex	Yes	144	18.90	-2.437	327.05	0.013*	134	16.21	-2.480	300.86	0.014*
	No	204	19.93				216	17.25			
Anal sex	Yes	41	19.39	-0.431	303	0.667	43	17.51	0.890	54.20	0.402
	No	264	19.67				268	16.93			
Vaginal sex	Yes	221	19.42	-0.930	332.07	0.353	216	16.95	-0.509	365.02	0.611
	No	158	19.80				169	17.15			

* $p < 0.05$

From Table 5, it is evident that the mean scores for sex-related rapport with both parents were generally higher for participants who had never engaged in all the above sexual activities than those who had. However, the difference in mean scores was only significant for oral sexual activity with regard to both mothers and fathers. The results could serve as evidence for the strong influence that parental views, support and information can have on adolescent sexual practices (Taris & Semin, 1998).

CONCLUSION

Adolescent sexual risk-taking remains a problem today despite the numerous sex-education campaigns. The current study sought to explore adolescents' preferred and actual sources of sex-related information and how these relate to adolescent sexual behaviour. Results indicated that mothers were the most preferred as well as the actual source of sex-related information. Although fathers were significantly preferred informers for male participants, they generally played a minimal role in sex education. However, the gender of the participants played an important part in the preference of parents as sex-related informers. Female participants significantly preferred mothers to inform them about all sexual activities while males significantly preferred fathers with regard to vaginal sexual activity. Overall, sex-related discussions between parents and adolescents were hindered by the adolescents' fear of their parents' reactions, embarrassment, and the parents' inquiry into the adolescents' need for such information. On the other hand, the preference for other sources of information (i.e. media and trained counsellors) was influenced by the gender of participants, and their sexual activity. Significantly more females than males preferred the media as a source of sexual information. Participants that were orally and anally sexually active preferred the media, while those who were not, significantly preferred trained counsellors as a source of information on sexual matters. Therefore, as well as working toward gender sensitivity, sex-education campaigns should also strive to disseminate factual information regarding not only coitus but also other aspects of sexual activity such as oral and anal sex.

Although the study produced interesting and valuable results, there were also certain limitations. Firstly, the measures used were not standardised for use among black South African adolescents. Particularly, the SEI is an American instrument which had not been used elsewhere in South Africa. The lack of standardised psychometric instruments in South Africa should be addressed urgently. The present situation forces researchers to use measures that will not be accepted in all scientific circles as being reliable, valid or even relevant. The present results, therefore, should also be interpreted in this light. Secondly, qualitative data from the participants could have augmented the self-reported quantitative data. This could have shed more in-depth light on several areas. Thirdly, as data were collected only from the

Mangaung region, the results of this study cannot be extrapolated to black adolescents living in other geographical regions of the Free State province. It is therefore recommended that similar studies be conducted in other areas of the Free State.

Although it is fully realised that a study on this level only covers the proverbial “tip of the iceberg” in that one cannot infer the nature of the whole from a small selection, it is clear that sex education does play a significant role in the sexual behaviour of black adolescents. It is therefore recommended that this intervention strategy should be investigated thoroughly to utilise its potential fully in the struggle against risky sexual behaviour.

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