DETERMINANTS OF SEXUAL BEHAVIOUR PATTERNS AMONG ADOLESCENTS IN LAIKIPIA DISTRICT, KENYA

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DECLARATION

I declare that this thesis is my original work. It has not been published or submitted elsewhere for examination.

Signature: _____

Date: 28th July 2008

Dr. Elizabeth Wangui Onyiego

DECLARATION

I declare that this thesis is my original work. It has not been published or submitted elsewhere for examination.

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DEDICATION

This thesis is dedicated to:

- To my husband Clement and our son J.B. for their encouragement,
- And to my mother and late father for their encouragement.

This far the Lord has brought me.

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LIST OF ABBREVIATIONS

AIDS	*Acquired Immune Deficiency Syndrome*
DEO	*District Education Officer*
DO	*District Officer*
ES	*Economic Status*
FGD	*Focus Group Discussion*
FGM	*Female Genital Mutilation*
GDP	*Gross domestic product*
HIV	*Human Immunodeficiency Virus*
KDHS	*Kenya Demographic and Health Survey*
KYIP	*Kenya Youth Initiative Project*
MOH	*Ministry of Health; Medical Officer of Health*
NACC	*National Aids Control Council*
SES	*Socio-Economic Status*
SPSS	*Statistical Package for Social Science*
STI	*Sexually Transmitted Infection*
TV	*Television*
UN	*United Nations*
UNAIDS	*Joint United Nations Programme on HIV/AIDS*
UNDP	*United Nations Development Programmes*
USA	*United States of America*
WHO	*World Health Organisation*

OPERATIONAL DEFINITIONS

ADOLESCENT/ADOLESCENCE

"Youth", "Adolescents" and "Young people" are defined variously. WHO refers to people between ages 10 and 19 as adolescents and the larger age group 10-24 as young people. The three terms often are used interchangeably as is the case in this study (WHO, 1986).

SEXUALITY, SEXUAL BEHAVIOUR, SEXUAL ACTIVITY

Human sexuality is multidimensional and dynamic and its definitions are varied and complex. It can be viewed as the state of `being', thus giving one a sexual identity and orientation, (WHO, 1991).

An individual's experience of sexuality is influenced by biology, gender roles and power relations and such factors as age, social and economic conditions (WHO, 1991).

Human sexuality is the quality of being human, as men and women encompass the most intimate feelings and deepest longings of the heart to find meaningful relationships Webb 1985).

Sexuality is, however, more than a biological phenomenon and much more than a sex act. It involves the biological and psychosocial aspects, such as gender, sexual response and orientation, values and attitudes, relationships, affection and love (Fogel, 1990). The psychological aspects of sexuality include an individual's attitudes and values, emotions and motivations to have or to avoid sexual experiences. These components affect sexual expressions, behaviour and functioning (Webb 1985). It can be viewed from different

dimensions, for instance, as 'sex' which involves the anatomical assignment; as a 'sexual activity' which refers to the natural functions; and as a 'sexual behaviour' which involves verbal and non-verbal expressions (Webb, 1985).

The socio-cultural dimension of human sexuality strongly influences how an individual develops as a sexual being. The moral standards, norms and expectations of any society govern the expression of sexuality. Two aspects of culture that attempt to control sexuality are religious and legal systems. Fogel (1990) points out that, moral rules are imposed by the cultures in which people live and, that they do not develop from the experiences of individual persons. Sexual behaviours are neither innate nor instinctive, but are learned and a result of `taking in' processing and incorporating 'cues and cultural norms' (Feyisetan and Pebley, 1989).

The study of adolescent sexuality involves an examination of the social, economic and health effects of their sexual expression, on both micro and macro levels. This includes, for instance, an assessment of the effects of sexual activity on the individual's health should unintended pregnancies or sexual infections (including HIV) result.

SAFE SEX

Sexual intercourse where both partners are not infected with STIs including HIV.

SAFER SEX

Sexual intercourse using male or female condoms.

PREVALENCE

Total number of cases at a given time.

INCIDENCE

New cases of disease over a certain period of time.

PERCEPTION

Views, opinions or values held by an individual.

ABSTRACT

Background: Twenty five percent of the world's population is between 10-24 years of age. With increasing social and peer pressures on young people to be sexually active and, in the case of boys, to have several different partners, reproductive health problems and deaths are common among sexually active adolescents. Epidemiological studies have revealed the existence of a pattern including age, gender, social economic status and sexuality, predisposes some young people to be more at risk of becoming infected with sexually transmitted infections (STIs) including HIV than others.

The literature reviewed from Kenya Demographic and Health Surveys (KDHS) and various studies, gives a general overview of adolescents' sexuality around the globe, in Sub Saharan Africa and Kenya. But there is minimal data for Laikipia district emanating from these studies or National Health Surveys. These studies and surveys revealed that adolescents' level of knowledge of the risks involved in early and unprotected sexual activity does not reduce their risky sexual behaviour.

Settings: A study was carried out in Laikipia district in July 2004 among 15–19 year old adolescents in school and out of school.

Objective: The study was undertaken to determine the sexual behaviour patterns among adolescents in Laikipia district.

Design: A descriptive cross-sectional study design was used.

Subjects: Data was obtained from 477, male and female, adolescents aged between 15 – 19 years.

Method: Self administered questionnaires and 6 focus group discussions were used to collect quantitative and qualitative data. Statistical Package for Social Sciences - SPSS – was used to analyse the generated data.

Results: The findings of the study revealed that 39.0% of adolescents in Laikipia were sexually active by age 19 which is lower than the 85% and 60% noted in the KDHS, 1998 and 2003 respectively. Levels of sexual activity of adolescents in Laikipia are also lower than the 80% for Sub Saharan Africa, as revealed by Noble, Cover, Yanagishita, (1996). The study being in a rural setting revealed that sexual activity of adolescents in Laikipia, is lower than the 58% of a rural setting revealed in a study done by Maggwa (1987) and by KDHS (1993).

Conclusion: This study found out that the main variables affecting sexual behaviour in 15–19 year old adolescents in Laikipia were gender, religion, whether an adolescent was in school or not, and perception.

Teachers, parents and Health Education Programmes were the most popular methods of disseminating information to the youth.

Recommendations: As such, the study recommends that the Government of Kenya should encourage the Protestant and Catholic churches in their role in reducing sexual activity among the youth and that the relevant reproductive health messages should be designed with clarity for the youth. NGO's and programme implementers should address sexual health issues before adolescents start engaging in sexual activity (age 10-15 is suggested). Finally Ministry of Education should review the role of Family Life Education with a view to re-introducing it in Schools' Curricula.

CHAPTER 1

1.0 INTRODUCTION

In many societies including Africa, the immediate and extended family traditionally provided young people with information about sex and sexuality, which was formalized as part of initiation into adult roles. However, colonization brought about a change in the economic system, with the introduction of formal education. The proliferation of education coupled with recent and rapid urbanization and migration affected family values, beliefs, and practices that had hitherto formed community networks. Young people of both sexes were removed from their homes and interacted without parental supervision. This impacted negatively on sexual education, socialization, as well as sexual behaviour and sexuality of young people.

Young people have a greater number of sexual partners and yet lack access to effective contraception. With menarche occurring at a younger age and marriage taking place much later, a 'contemporary adolescence' phase has evolved. 'Contemporary adolescents' are faced by a longer period during which they are more at risk of the negative consequences of adolescent sexuality relative to young people of previous generations (Piot, 1994; Moore, 1994; Balmer et al., 1997; Fuglesang, 1997; Caldwell and Caldwell et al., 1998; Rivers and Aggleton, 1999).

Epidemiological studies in developed and developing countries have revealed the existence of a pattern that predisposes some young people to be more at risk of becoming infected with sexually transmitted infections (STIs) including HIV than others. These include age, gender, social economic status and sexuality. Adolescents also often have

less access to education and information, services and resources than those who are older (Friedman, 1993; Rivers and Aggleton, 1999).

Health services are rarely designed specifically to adolescent needs, and health workers rarely receive specialist training on issues pertinent to adolescent sexual health (Friedman, 1993; Zelaya et al., 1997; WHO, 1998).

Young people in Tanzania indicated that they were hesitant to go to public health clinics or hospitals for any type of service, but were more likely to treat themselves with over-the-counter medicines (Fuglesang, 1997). Similarly, young people have reported that access to contraception and condoms is difficult (Zelaya et al., 1997).

It is alleged that young people have been receiving contradictory messages concerning sexuality and HIV/AIDS. For example young people recently interviewed in Kenya, suggested that AIDS was a scare campaign perpetrated by older people to prevent them from enjoying sex (Balmer et al., 1997).

Adolescents are unlikely to use a contraceptive the first time they have sex and are more likely than older women to experience a contraceptive failure (Blanc and Way, 1998).

The attainment of secondary levels of education and above is associated with lower rates of adolescent childbearing, but other socio-economic changes reduce this effect in several countries (Singh, 1998). In resource poor countries, gender differences affect the schooling experiences of adolescents, as evidenced from Kenya where sex education is not taught and double standards on sexual activity exist; where males are socialized to have many sexual partners, while the females are expected to stay chaste (Mensch and Lloyd, 1998).

Other important risk factors predisposing this group include socio-cultural, political and economic forces such as poverty, migration, war and civil disturbance. Unequal power relations between women and men, unequal life chances, rigid and stereotypical gender roles in many parts of the developing world have the potential to predispose young women to the risk of unwanted sex, since they have little control over how, when and where sex takes place (Gupta, Weiss and Mane, 1996; Aggleton and Rivers, 1998; Sweat and Denison, 1995; Elford, 1997; WHO, 1998).

Sexually active young women are discouraged from discussing sex too openly with their own partners, since ignorance of sexual matters is often viewed as a sign of purity and inexperience. This means that young women are less likely to negotiate for safer sex with their male partners.

In Kenya, for example, young women felt that they did not have control over their sexuality; instead girls learned that sex was something that happened to them and not something they could initiate or actively participate in (Balmer et al., 1997).

In Malawi, over 57% of adolescent girls said that it was easier to risk pregnancy than to ask a partner to use a condom (Helitzer-Allen, 1994), while in Tanzania, young men attempt to gain enhanced adulthood and social status through engaging in sexual activity (Seel, 1996).

In many parts of the world including Kenya, people with HIV/AIDS routinely experience negative social reactions including discrimination, stigmatisation and ostracisation (Auer, 1996; Malcolm et al, 1998). Children and young people especially young women are

sometimes left without social support and legal protection from the community and may therefore be coerced into sex work (Levine, Michaels and Back, 1996).

It is therefore necessary to examine and suggest strategies related to high-risk sexual behaviour among adolescents, in order to bring about a reduction in unsafe pregnancy, abortion and STIs including HIV.

1.1 BACKGROUND

Currently 25% of the world's population is between 10-24 years of age, and 86% of them live in developing countries (Population References Bureau, 2000).

There are increasing social and peer pressures on young people to be sexually active and, in the case of boys, to have had several different partners (Rivers & Aggleton, 1998). But reproductive health problems and deaths are more common among sexually active adolescents than among women in their 20's and early 30's (Senderowitz, 1995).

Adolescent pregnancy is common in many countries with millions of adolescent girls giving birth to 15 million infants every year (Alan Guttmacher Institute, 1997). Several studies have shown that 82-85% of adolescent pregnancies are often unplanned and unwanted and that pregnancy related causes are the main determinants of mortality among 15-19 year- old females worldwide (UNICEF, 1994).

Pregnancy related health risks for both adolescent mother and child, include toxaemia, haemorrhage, anaemia, infection, malnutrition, cephalo-pelvic disproportion, obstructed

labour and vesico- or recto-vaginal fistula. In Niger for example, 80 percent of all cases of fistulae occur to young women aged between 15 and 19 (Senderowitz, 1995).

Other consequences such as low birth weight, perinatal, infant, child and maternal mortality are also prevalent (Shane, 1997; Daly, Azefor and Nasah, 1994; Bicego et al., 1996). Indeed it has been noted that children born to adolescents are more likely to die during their first five years of life than those born to women aged 20–29 (Cates and Stone, 1992).

Girls aged 15-19 are twice as likely to die from complications related to childbirth as women in their 20's, while those aged below 15 are five times as likely to die from childbirth as women in their twenties (UN, 1991; Senderowitz, 1995). Indeed while the maternal mortality ratio for East Africa is 600 deaths per 100,000 live births (WHO, 1997), that for Ethiopian women aged 15-19 is 1,270 per 100,000 live births, which is approximately three times higher relative to that of women aged 20-34 in the same country (Noble, Cover and Yanagishita, 1996).

Abortion is legally restricted in many countries and adolescents often resort to unsafe procedures by unskilled providers. These adolescent girls therefore suffer a significant – and disproportionate – share of death and disability from unsafe abortions (Singh, 1998). Each year, girls aged 15-19 undergo at least five million induced abortions worldwide (Koontz and Conly, 1994).

In many African countries, up to 70% of women treated for abortion complications are younger than 20 years (WHO, 1993).

A review of 13 studies in seven Sub-Saharan African countries shows that adolescents between the ages of 11 and 19 years account for 39-72% of all abortion-related complications (Senderowitz, 1995).

In Kenya, illegal abortions among adolescents account for 28-64% of all emergency admissions in Kenyan hospitals (Ojwang and Maggwa, 1991).

In a Ugandan study, 17% of young girls aged 15-18 had undergone an abortion (Noble, Cover and Yanagishita, 1996).

Treatment of abortion-related complications, which include sepsis, hemorrhage, uterine perforation, and cervical trauma, which may cause infertility and chronic illness, often requires several days of hospitalization and staff time, as well as blood transfusions, antibiotics, pain control medications and other drugs. In some hospitals in developing countries, treating the complications of unsafe abortion consumes as much as 50% of the total budget (Coeytaux et al., 1993).

Although the United States is experiencing a decline in adolescent sexual intercourse, it continues to have the highest adolescent STD and birth rates of any industrialized nation (Piot, Islam 1994; Moore, 1994).

In Sub-Saharan Africa, more than half of girls give birth before age 20, while in Latin America and the Caribbean, this figure drops to one third (Hobcraft, 1997).

In Kenya, 45.6% of adolescents aged 19 years had begun childbearing. Rift Valley has 30.5% of 15–19 year olds who have begun childbearing (Laikipia is in the Rift valley). This was the highest of all the provinces in the country (KDHS, 2003).

Early marriages, which increase fertility rates, are still prevalent in Sub-Saharan Africa, with the average age of brides being 15.1 years in Niger, 16.5 years in Cameroon, and 17.5 years in Burkina Faso (Kishor and Neitzelk, 1996).

Delaying marriage often delays first birth, and can also reduce the total number of children a woman has, since she will spend fewer years in childbearing (WHO, 1995).

Women with secondary level of schooling tend to marry later and have fewer children than those with no education. Total Fertility Rate for Kenyan women of reproductive age is 6.7 children per woman for those with no education but it is only 3.2 children for those with some secondary education and above (KDHS, 2003).

Teenage motherhood is associated with discontinued or delayed education which limits their educational attainment. This inhibits the development of skills necessary for the job market. Thus it increases the likelihood of reduced employment opportunities, low wages, limits their capacity to support themselves, prolonged welfare dependency, unstable marriages and large families with poor health status (Population Council, 2002).

In the recent past the total number of women and men aged 15-24 living with HIV/AIDS was 11.8 million worldwide, and of these, 8.6 million (over 70%) were in Sub-Saharan Africa (UNAIDS, June 2000; UNAIDS, WHO, 2001).

Each year, one adolescent in twenty worldwide contracts an STD (including HIV/AIDS) (UNICEF, 1994). Indeed sexually transmitted infections (STIs) including HIV are most common among young people aged 15-24. It has been estimated that half of all HIV

infections worldwide have occurred among people aged below 25years, and in some developing countries this has risen to 60% (WHO, 1995).

In Kenya it is estimated that about 13% of females and 6.4% of males aged 15-24 had HIV/AIDS (1999) compared with the current 6% females and slightly over 1% males for the same age group (UNAIDS, 2000). Adolescents aged 15-19 constituted 1.6% of all AIDS cases (KDHS, 2003). It is estimated that in Kenya the impact of HIV/AIDS may reduce the GDP by 14-15% in the next 10 years (NACC, 2000).

Sexually transmitted diseases have a particularly large impact on young women who are more easily infected than older women and who, compared to men, are more frequently asymptomatic, more difficult to diagnose, and suffer more serious and long-term complications, such as pelvic inflammatory diseases and ectopic pregnancies (Cates and Stone, 1992).

Sexual relationships during adolescence increase the risk of contracting sexually transmitted diseases including HIV (Ojwang and Maggwa, 1991; Ferry et al., 2001). Indeed once sexually active, adolescent girls in Kisumu in Kenya and Ndola in Zambia (Cities with high HIV prevalence) very quickly became HIV infected (Buve et al., 2001). In areas characterised by peak HIV epidemics multiple sexual partners are known to occur very early with 49% females and 58% males of sexually active adolescents having 2-4 partners. Of the 10-14 year old adolescents, approximately 20% have had 2 sexual partners (Population Council, 2001).

In a study conducted in a rural community in Nigeria, 42.1% of the sexually active female adolescent participants had experienced either an abortion or a sexually transmitted disease (Brabin et al., 1995).

There are over 7,000 new HIV infections per day among 15–24 years old in Sub-Saharan Africa. However over time, HIV infections have shifted to younger age groups of the population with young women being particularly susceptible (De Cock et al., 1994). This is apparent in Uganda, where HIV prevalence among teenage females is six times higher than in teenage males (WHO, 1997).

In Abidjan, 11% of females under the age of 20 attending a maternal-child health clinic were HIV positive (De Cock et al., 1994). In Nairobi and Abidjan, up to 90% of female commercial sex workers are HIV positive, and adolescent African males are often clients of commercial sex workers.

In Zimbabwe, nearly 16% of male high school students reported having had sex with prostitutes (De Cock et al., 1994).

On the other hand, in Malawi, nine out of ten teenage boys, (50% of whom reported at least one casual sex partner in the past year) felt invulnerable to HIV (UNAIDS, 1997). In Kenya 80% of adolescent boys and 80% of adolescent girls perceived themselves at little or no risk of getting HIV and yet most of those sexually active were clearly at risk (KDHS, 1998).

Joint United Nations Programme on HIV/AIDS (UNAIDS) and its co-sponsoring organisations including UNDP, identified young people as a key group for HIV-related prevention activities. World AIDS Day in 1998 gave special emphasis to this fact and identified young people as a key group to work with.

Some HIV/AIDS education programmes target young people who live in abject poverty, those who lack regular or appropriate adult support, are stigmatised, discriminated

against or marginalized. Young people living in such precarious circumstances are often difficult to reach with HIV/AIDS programmes since they are more concerned with their daily survival like the need for shelter, food, money, protection, love and affection. Workers with such groups believe that meeting immediate needs and developing self-confidence will help street children to protect themselves from the risks of HIV infection (Vasconceles et al., 1993).

Girls in refugee camps are also at particular risk of becoming infected with HIV because they are forced to exchange sex for economic advantages or protection (Benjamin, 1996). Governments in Sub-Saharan Africa are concerned by the region's significant number of young people affected by the HIV/AIDS epidemic, for which the main contributor is unprotected adolescent sexual activity (Rivers and Aggleton, 1999).

CHAPTER 2

2.0 LITERATURE REVIEW

Globally, most people become sexually active during adolescence. Rates are highest in Sub-Saharan Africa, where more than half of the girls aged 15–19 in seven countries were sexually experienced (UN, 1991).

Studies from several countries reveal that the mean age at which young people become sexually active maybe falling (Fee and Yousef, 1993). For example surveys in South America found out that 73% of adolescent males and 28% of adolescent females in Rio de Janeiro reported having had premarital sex, compared with 59% and 12% in Quito respectively (Population Council, 1996).

In a recent Brazilian school-based study, 36% of females reported having had intercourse by the age of 13 (Weiss, Whelan & Gupta, 1996). Even in parts of the world such as India where there is little evidence of sexual activity among young people and where it is widely assumed that sexual initiation takes place within the context of marriage, recent studies have shown that approximately one in four unmarried adolescent boys are sexually experienced (Jejeebhoy, 1998).

In Sub Saharan Africa at least 80 % of African youth are sexually experienced by age 20. Seventy three percent of all Liberian women aged 15-19 have had intercourse, as compared to 53% of Nigerian, 49% of Ugandan, and 32% of Botswanan adolescent women (Noble, Cover, Yanagishita, 1996).

Young people become sexually active at an early age in many countries. In Uganda, for example, almost 50% of young men and nearly 40% of young women surveyed reported having had sex by the age of 15 years (Konde-Lule et al., 1997). In Dar es Salaam,

Tanzania, 60% of 14 year-old boys and 35% of girls were reported to be sexually active (Fuglesang, 1997).

In many Sub-Saharan countries, first sexual activity usually takes place before marriage (KDHS, 1993; McDevitt, 1996), for example in Ghana it was noted that 31% of young men and 47% of young women had had premarital sex (Population Council, 1996).

In Kenya adolescents aged 10-24 years make up 34.3% of the population and 10.9% are aged 15-19 years (KDHS, 2003). Studies in Kenya showed that between 26-46% of unmarried adolescents aged 15-19 were sexually active (Njau, 1995; KDHS, 1998), that sex begins on average at age 16.2 years for boys and 16.8 years for girls and median age at first sexual intercourse was 16.8 years. Almost half of the women had had sex by the time they turned 18 years and 13% had sex by the time they were 15 years, while 60% of young males had had sex by the time they were 18 years and 25% by age 15 (KDHS, 2003). In Kisumu Municipality 26% of boys and 27% of girls were sexually active before age 15 (Population Council, 1999). In one study 4% of teenagers surveyed in Nairobi were sexually active before age 10 and 80% of sexually active teens 13-19 years old had had one or more acts of unprotected intercourse thereby being at risk of pregnancy or HIV infection (Maggwa, 1987).

There exist sexual practices and behaviour patterns among adolescents that predispose some of them to be more at risk of becoming infected with STIs including HIV than others. Whether residence is rural or urban influences the onset of sexual activity among adolescents. In Kenya, rural young women engage in intercourse earlier than urban women (KDHS, 1993).

A study comparing high school girls in Nairobi with their rural counterparts found that 24% of the urban and 58% of the rural girls were sexually active. This finding was inconsistent with the popular generalization that urban schoolgirls are more sexually active than rural schoolgirls due to the influence of mass media, a cosmopolitan population and a more sexually stimulating environment (Maggwa, 1987).

The level of formal education a person has had influences the onset of sexual activity with the median age at first intercourse for women with no education being three years earlier than women with at least a secondary school education (KDHS, 1993).

However available data shows that 95% of 15-19 year old Kenyan adolescent males and 93% females have heard of AIDS and that the AIDS virus is transmitted through sexual intercourse. Forty five percent males and forty nine percent females of the same age group knew of 'any risk' of early childbearing while only 9% and 13% respectively do not know of any ways to avoid contracting HIV/AIDS. It would be expected that, with these levels of knowledge, adolescent sexual activity would correspondingly reduce, but several studies have revealed that this is not the case. Indeed about 85% of adolescents had initiated coitus by age 19 (KDHS, 1998).

There are two distinct kinds of sex education programmes in the United States; Abstinence-only and Abstinence-plus programmes. Abstinence-only programmes are those where information on contraception is either not provided or is discussed only in reference to failure rates. Abstinence only programmes instil fear among clients and focus primarily on negative consequences of premarital sex. Abstinence-plus programmes on the other hand encourage abstinence as the most effective form of

pregnancy and disease prevention. However, recognizing that nearly all people eventually become sexually active, abstinence- plus programmes include contraceptive information as well as coverage of other sexuality issues and skill building to resist social and peer pressures (Kirby, 1997).

The World Health Organisation notes that abstinence-only programmes were less effective than programmes that advocated the delay of first intercourse and promoted safer sex practices, such as contraception and condom use (Baldo, Aggleton and Slutkin, 1993).

A review of several abstinence-only programmes found no evidence that any of these programmes was successful or effective in delaying first intercourse (Berns, Huberman 1995; Kirby, 1997).

Furthermore, there was no evidence that abstinence-Plus Programmes increased sexual behaviour or encouraged sexual activity by hastening its onset, increasing its frequency, or increasing the number of sexual partners (Kirby, 1997; Baldo, Aggleton and Slutkin, 1993).

Parents and families from many cultures are known to have a negative view about disseminating information about sex and reproductive health to young people. This attitude is prompted by the need to 'protect' young people from information, which they believe, may lead to sexual experimentation (George and Jaswal, 1995; Zelaya et al., 1997). However, empirical evidence suggests that young people who openly communicate about sexual matters with their parents, especially mothers, are less likely to be sexually active or for girls to become pregnant before marriage (Gupta, Weiss and Mane, 1996).

Available survey data in the United States showed that the majority of adolescents, parents of teens, and school administrators believed a responsible, balanced health education curriculum was of equal or greater importance as other school subjects. However, administrators felt that teachers were not sufficiently trained for such a curriculum (American Cancer Society, 1994).

Stereotype attitudes about young people's sexuality influences policy and practice in relation to young people and their sexual health. As a result, sex education in schools either does not take place or promotes only certain risk reduction measures - mostly abstinence (Grunseit et al., 1997; Grunseit, 1997)

In Nigeria and Ghana, evaluation of peer education programmes implemented in nine communities showed that peer educators significantly increase knowledge, self-efficacy, "ever- use" of contraceptives, and willingness to purchase contraceptives among target populations. It also revealed that peer education was most effective among secondary school students and that; males were more receptive to peer education than females (Lane, 1997).

In Uganda, health education programmes have been shown to change adolescent knowledge, attitudes and practices. Having undertaken an aggressive sexual health education campaign against HIV/AIDS, two surveys carried out in 1989 and 1995 on HIV/AIDS and sexual behaviour, revealed significant behaviour change in teenage respondents. For example, the number of adolescents reporting never having had sex increased from 31% in males and 26% in females in 1989, to 56% among males and 46% among females in 1995 (Asiimwe-Okiror et al., 1997).

In Kenya, the Kenya Youth Initiative Project (KYIP) reached nearly 10,000 Kenyan leaders in politics, churches and NGOs urging the provision of sex education, counselling and related services to youth. KYIP also developed an interactive educational radio program, the Youth Variety Show, with 3.3 million youth nationwide listening to the show. Within four months of the show's commencement, 56% of clients at youth clinics cited radio as their main source of referral, up from 23% (Kiragu et al., 1998).

Approaches on HIV related prevention activities have changed over the years from targeting the individual to the community and finally to the environment.

Pioneering prevention work, focused at getting young people to develop appropriate knowledge and skills to enable them to change their behaviour in order to enhance their sexual health. However, this approach was criticised for failing to take into account contextual, environmental and structural factors influencing young people's "choices", actions and behaviours (Aggleton, 1996).

In the later years of the epidemic HIV prevention activities aimed at the community level in particular peer education programmes which addressed the social processes that influenced gender and sexual norms of young people. (Aggleton, 1996). Several studies have demonstrated that peers are important in shaping gender identity, roles and attitudes towards sexual behaviour among young people (Svenson, Hanson and Johnsson, 1995). Programmes, which are community based, attempted to influence recognition of the social construction of gender roles and sexual attitudes and behaviour.

More recently though, prevention work has aimed at bringing about structural and environmental changes to factors which constrain young people's behaviour and are beyond their personal control like social, economic and legislative factors. Gender empowerment, for example, if addressed would make women equal partners in sexual decision-making, and make it easier for them to control their reproductive health.

There is consensus that HIV prevention programmes need to address public policy concerns so as to enable young people to take action that protects their reproductive health in total and from becoming infected with HIV in particular (Tawil, O'Reilly and Vester, 1995).

A variety of prevention programmes have now been undertaken in developing countries with the aim of reducing the risks of HIV infection among young people.

For example in Kenya, with an estimated 70-80 per cent of the population professing to be Christians, church ministers and priests have been targeted with messages about HIV/AIDS (Black, 1997). A manual was also developed, designed to improve communication between parents and children and 5,000 copies were distributed through churches. The clergy also used the manual to help advice parents on how to improve communication with their children (Black, 1997).

In Dar es Salaam, Tanzania, contemporary Unyago clubs for girls living in the urban areas have been set up and parents are able to register their daughters here where traditional female healers instruct them in accordance with their own traditions and customs (Fuglesang, 1997).

In Mexico, following a training programme involving videos and group discussions, mothers reported becoming competent to discuss matters concerning sex with their

children. However, it proved difficult to recruit fathers to the project (Givaudan et al., 1997).

Teachers, like many other adults, find discussing sexual matters with young people difficult and embarrassing (Jejeebhoy, 1998), but a supportive school environment can help them to overcome some of their worries. A programme designed to train teachers for HIV/AIDS prevention in Zimbabwe found out that teachers were keen to undertake HIV/AIDS education, but that support from head teachers and key personnel from the education department was key to the success of the HIV/AIDS education programmes (Woelk et al., 1997).

While working with young people in schools it is important to note that in many developing countries, some of the most vulnerable young people do not attend school. However, school-based programmes may help reach some out-of-school youth with the messages about safer sex disseminated through their school-attending peers (Blake et al., 1996).

It has been noted that sex education programmes have greatest impact if undertaken prior to the onset of sexual activity (Grunseit, 1997).

A number of initiatives designed to help reduce HIV/AIDS prevalence among young people out of school focused on the peer group. Peer education programmes target groups of young people in an effort to influence established norms, values and behaviour (Svenson, Hanson and Johnsson, 1995). Thus, peer-educators work in a variety of locations including schools and colleges, playgrounds, sports fields, the street and the workplace (Williams, 1996).

After participating in a peer education programme, young women who had earlier been concerned that 'too much knowledge' about sex might compromise their reputation with others reported that the award of certificates on completion of the course allowed them to discuss HIV more openly with others without fear of reprisal (Cash et al., 1997).

CHAPTER 3

3.0 RESEARCH PROBLEM

3.1 Statement of the Problem

Adolescent sexual activity has serious and far-reaching consequences. These as have been alluded to, include infection with STIs including HIV and high levels of morbidity and mortality among infants, children and their young mothers.

When education for the teenage mothers is interrupted or prematurely terminated by motherhood, it limits their skills in the work force and therefore their quality of life is lowered.

It is costly to treat abortion-related complications, STIs and AIDS, coupled with the cost of hospitalisation, medication and other treatment. Welfare dependency of adolescent mother and infant is also costly.

Since available data from research shows that 95% adolescent males and 93% adolescent females in Kenya have knowledge of the risks involved in unprotected sexual activity, it would therefore be expected that, their sexual behaviour would change accordingly. However studies in Kenya show that levels of sexual activity among adolescents are not reducing and begin at an early age. It seems as if adolescents face many challenges in their endeavour to maintain sexual health by especially reducing their sexual activity.

Yet there are some who significantly delay or completely avoid sexual intercourse. On the other hand of those that are sexually active there are some who have managed to avoid pregnancy and STIs.

3.2 Research Questions: The following are pertinent research questions:

1. Is the available information on sexual matters relevant to the needs of adolescents?
2. What determines adoption of safer sex behaviour among adolescents?
3. What factors contribute to avoiding of sexual intercourse among adolescents?

3.3 JUSTIFICATION

Laikipia District consists largely of a rural multi-ethnic community. It is the home of the Somali, Boran, Maasai, Samburu, Meru, Kikuyu and Pokot ethnic groups.

The tourist activity around the Mt. Kenya region, along with the presence of four battalions of the Kenya and British armies, results in a uniquely disproportionate male population, which contributes to an influx of commercial sex workers into the region. These unique features could in theory influence adolescent sexual behaviour in the district, making it different from that of other regions.

In addition, since the region has the potential for agriculture and especially horticulture and is amenable for human settlement, a potential for rapid population growth is created. A study on determinants of sexual behaviour among the youth is therefore justified in order to lay strategies in preparation for that time.

The study area, Laikipia district, has minimal data on adolescent sexuality emanating from other studies. Neither has the district been sampled in the KDHS of 1993, 1998. Hence there exists an information gap. This study was intended to add to the districts' data base and to generate baseline data for future planning.

Moreover, this study is consistent with the Ministry of Health's National Reproductive Health Strategy on enhancing the scope and quality of reproductive health programmes. One goal is to conduct research on suitable modalities for provision of services to vulnerable groups especially adolescents.

The results of this study will therefore be useful in identifying some appropriate intervention strategies aimed at addressing adolescent sexuality and related problems. These strategies will in turn be recommended to policy makers since reducing unprotected sexual activity among adolescents can lead to decreases in adolescent morbidity and mortality and thus reduce the individual and national expenditure.

Policy makers and programme designers need accurate information from studies such as this one in order to provide supportive environments necessary to improve adolescents' reproductive health.

By involving young people in generating the information concerning their sexual health, they become genuine partners in dialogue and decision-making.

3.4 STUDY OBJECTIVES

3.4.1 Main Objective

The main objective of this study is to find out factors that influence sexual behaviour patterns among adolescents in Laikipia District.

3.4.2 Specific Objectives

1. To determine the socio-demographic characteristics (age, sex, religion. level of education, economic status) of adolescents in Laikipia District and to relate them

to their sexual activity.

2. To describe adolescents' knowledge and perception of sexual issues in Laikipia District.
3. To determine adolescents' sexual activity in Laikipia District.
4. To determine availability and dissemination methods of relevant information on adolescent sexuality in Laikipia District.
5. To explore adolescents' felt needs in the area of sexuality and HIV/AIDS.

3.5 HYPOTHESES

1. Socio-demographic characteristics (age, sex, level of education, economic status and religion) have no influence on sexual activity of adolescents.
2. Knowledge of sexual issues has no influence on sexual activity.
3. Information methods have no influence on sexual activity.

3.6 DESCRIPTION OF STUDY AREA

The study was carried out in Laikipia District, Rift Valley Province, one of the eight provinces in Kenya.

3.6.1 Position and Size

Laikipia is one of the nineteen districts in the Rift Valley Province. The district lies east of the Great Rift Valley. It borders Samburu district to the north, Isiolo district to the northeast, Meru district to the southeast, Nyeri district to the south, Nyandarua and Nakuru districts to the southwest and Koibatek and Baringo districts to the west.

The district lies between latitudes $0^0$18" south and $0^0$51"north and between longitudes $36^0$11" and $37^0$24" east.

It stretches 135 kilometres from east to west and 120 kilometres from north to south. The district covers an area of 9,229.9 sq. km, and is divided into seven divisions.

3.6.2 Topography and Climate

The district consists mainly of a plateau bounded by the Great Rift Valley to the west and the Aberdare and Mt. Kenya massifs to the south, though Mt. Kenya does not form part of the district.

The altitudes of the district vary between 1800 metres to the north and 2600 metres to the south.

Due to its leeward position, this area is comparatively dry and hot and consequently it is mainly used as pastureland except for the mountain slopes and forest zones. The Ewaso Nyiro River and its tributaries, which have their catchment areas in the Aberdare ranges and Mt. Kenya, traverse the entire region. There are two major swamps in this district, which are virtually undeveloped, but have some agricultural potential.

The south-western part of the district has the highest potential for forestry and mixed farming because of its high altitude, and it is also the most densely populated area. The rest of the district is suitable for grazing and ranching.

The rivers determine human settlement, as they are the source of water for human and livestock consumption.

The annual rainfall varies from one area to another but is mainly relief in nature and ranges between 400-750mm. The long rains are from March to May while the short rains are from October to November.

3.6.3 Administrative and Political Units

Laikipia district consists of seven divisions, namely Lamuria, Central, Mukogodo, Rumuruti, Ng'arua, Olmoran and Nyahururu Municipality, which are further sub-divided into 33 locations and 64 sub-locations. Nanyuki, Nyahururu Municipalities and Laikipia County Council are the three local authorities in the district with 8, 6 and 21 wards respectively.

The district has two parliamentary constituencies namely Laikipia East and Laikipia West.

3.6.4 Population Size

The district consists largely of a rural multi-ethnic community, is the home of the Somali, Boran, Maasai, Samburu, Pokot, Kikuyu and Meru people among others who go there to work or settle.

The total population of Laikipia was 322,187 in 1999 with an intercensal growth rate of 3.8% per annum. The population was projected to grow to 418,923 in 2005. The districts' population comprises mostly young people with those aged 20 years and below constituting 60% of the total population.

The overall male: female ratio is to 100: 97 except for age groups, 20-24 and 45-49 which have a male to female ratio of 100:105 and 100:102 respectively.

It is estimated that the districts' total fertility rate is the same as that of the Rift Valley province, which is 5.8 children per woman by the time she completes her childbearing period (KDHS, 2003).

Large scale farming and group ranching, are major economic activities. This together with a disproportionate number of males migrating into the district without their families to prepare for settlements may partially explain the slightly higher male to female ratio. Majority of the labour force in the ranching and agricultural sector are mainly semi-skilled and unskilled workers.

The general population density in Laikipia is 45 persons per square kilometre. Of the seven divisions in the district, Rumuruti and Ng'arua divisions have the highest concentrations of the total population. These two divisions have higher economic potential compared with the other divisions. Lamuria and Mukogodo divisions have the lowest total population and a low economic base. Mukogodo division is also the driest and is inhabited by the nomadic Maasai ethnic group who solely depend on livestock keeping.

The district has three urban centres following the relocation of Nyahururu Municipality to Laikipia district - the other two being Nanyuki and Rumuruti.

Civil servants and parastatal employees who have recently been retrenched have moved to these urban centres with the aim of starting small-scale businesses. Employment opportunities in the formal and informal sectors have attracted a population influx from the surrounding suburbs, of which the majorities are school leavers. The Kenya army and

British army form a sizeable proportion of the population particularly in Nanyuki Municipality.

The most important resources in Laikipia include land, livestock, water, forestry, tourism, and fisheries.

There are 334 pre primary schools, 224 primary schools, 27 secondary schools, 122 adult education centres and 10 youth polytechnics. The district has no national schools.

The educational facilities are fully utilised except in Mukogodo division where enrolment is low due to drought and the practice of nomadism. Secondary schools' enrolment is low in some schools either due to past poor management or because they are new. The ratio of adolescents in school relative to those out of school is 2:1. Generally the dropout rate is between 10%-30% per year. The high rate of dropout in Mukogodo is due to migratory lifestyle of the indigenous people coupled with cultural beliefs.

Literacy rate is 60% in agricultural areas and 35% in the pastoral areas.

There are two hospitals, six health centres, two nursing homes, and 32 dispensaries. The government hospitals and the dispensaries in the populated areas are over utilised. But in the remote and less populated areas like Mukogodo the health facilities are under-utilised. The main reasons for this are the constraints in access to the health facilities and the inability to afford the basic health services due to poverty.

CHAPTER 4

4.0 STUDY METHODOLOGY

The study was carried out in Laikipia, one of the nineteen districts in the Rift Valley Province. In this district 60% of the total population comprises young people aged 20 years and below and the ratio of adolescents in school relative to those out of school is 2:1.

4.1 Study Design

A descriptive cross-sectional study design was used to find out the factors that influence sexual behavior patterns among adolescents in Laikipia District.

4.2 Variables

4.2.1 Dependent Variable

1. Sexual activity – the active engagement in coitus, measured as number of times an adolescent has ever had sex, and categorized as none, once or more than once, to indicate not active, active or very active respectively.

4.2.2 Independent Variables

1. Socio-demographic characteristics (age, gender, religion, sex education, economic status and occupation).
2. Knowledge - any contraceptive known was used to indicate knowledge. Number of modern contraceptives known was used to categorise into, none, one type and more than one type,
3. Perception – measured as the response to questions asked about their opinions on matters relating to sex.
4. Sex education - any sexual health education training received in or out of school.

5. Availability and dissemination methods - where adolescents sourced from any information of sexual health.

4.3 Study Population

The study focused on 15-19 year old male and female adolescents both in and out of school, in Laikipia district.

4.4 Inclusion and Exclusion Criteria

Inclusion Criteria

- Respondents were between 15-19 years of age.
- Adolescents' assent to participate in the study.
- Those whom the school authority consented for them to take part in the study.
- Consent to conduct the study in the community was obtained through the local administration.

Exclusion Criteria

- Those not willing to participate.
- Adolescents not aged 15-19 years.

4.5 Sampling Procedure

Based on demographic information from the Laikipia District Development Plan (GOK 1997), in- school and out-of-school adolescents were in the ratio of 2:1. The ratio of boys relative to girls, be they in school or out of school, was 1:1. In the absence of a National school there was reason to believe respondents would be from local areas.

Multistage sampling was used to select adolescents for the study.

Three divisions were purposively sampled because they had enough number of schools and enrolment. They were also among the most populated divisions.

To select the in-school adolescents, first the secondary schools in the three Divisions were stratified by type of school and a proportionate sample taken as follows: - one boys-boarding, one girls-boarding, two mixed-boarding, and three mixed-day.

Then the adolescents were selected by systematic random sampling. Ten respondents were selected from each class using a class list and ensuring that the inclusion criteria were met.

The out-of-school adolescents were selected from the already selected divisions. The Central Bureau of Statistics household clusters in the district were used to select six clusters randomly. From the centre of the selected cluster the research assistants took different directions and all the adolescents in the selected areas meeting the inclusion criteria were interviewed until the sample size was attained.

4.6 Sample Size

The formula for estimating proportions used to determine the sample size was:

$$n = \frac{z^2 pq}{d^2}$$ (Kothan, 2001)

n = the sample size

d = 0.05 for a degree of precision.

z = 1.96 the reliability co-efficient for a 95% confidence interval.

Forty six percent was taken as the proportion in the population of adolescents that were sexually experienced (Njau, 1995; KDHS, 1998).

p = 46%

$q = 1 - p = 0.54$

$$n = \frac{(1.96)^2(.46)(.54)}{(0.05)^2} = 382$$

There was an increase to 440 to allow for a non-response rate of 15%.

4.7 Data Collection

Data was collected in July 2004 before schools closed for the August holidays.

Introductory field visits were made prior to data collection to seek support from the local authorities and community. The DC, DEO, MOH, the local administrators (DOs, chiefs and assistant chiefs) were contacted and their co-operation sought. In the community permission was sought from the parents of the adolescents through the chiefs.

Prior arrangement with the school heads was made, so as to meet the respondents in their classrooms.

Three days training for 2 male and 2 female research assistants was held prior to data collection.

Quantitative data was collected by a questionnaire which included open ended and closed questions. The questionnaires were delivered to each of the respondents and collected by the trained assistants after the respondents had filled.

The out of school adolescents were interviewed in their parents' houses or in their neighbourhood.

Six focus group discussions (FGDs) were held to collect qualitative data using a developed interview guide. Two of these FGDs were with out-of-school adolescents and the other four with in-school adolescents as follows: - 1 BB, 1 GB, and 2 MD. Three male and three female groups of 7 – 12 participants each were held.

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The principal investigator and one assistant conducted the FGDs. The interviews were recorded on tape.

4.8 Data Management and Analysis

A computer was used for data management and analysis. The Statistical Package for Social Sciences (SPSS Inc.) programme was used. Data collected from the focus group discussions was thematically analysed and used to add value to the study.

Categorising of the open-ended questions and coding of the closed questions in the questionnaire was done after data collection while thematic analysis was done for the FGDs. Frequency tables were constructed and tabulations and cross-tabulations done. Chi-Square tests of significance and regression analysis were used to analyse the data.

4.9 Ethical Consideration

1. Approval for the study was obtained from the Office of the President.
2. Authority from the school and the local administration had been sought to interview respondents in cases where the parents were not available to give the consent.
3. The purpose of the study was explained to the respondents so that they made informed decisions to consent.
4. The respondents participated voluntarily, and both confidentiality and anonymity were strictly adhered to.
5. Privacy was ensured during interviews to enhance free communication.

4.10 Minimization of Bias and Errors

Interviewer Bias and errors were minimised by training the research assistants. Taking a large enough sample size also minimised bias and errors.

Pre-testing of the questionnaire was done using a sample that was not included in the main study sample. The necessary adjustments were done to make the questionnaire interviewer/interviewee friendly.

4.11 Limitations of the Study

Due to the layout and vastness of the district, the schools were unevenly distributed with some divisions having very few schools which were also difficult to access. For this reason non-probability sampling of divisions was done. This may have introduced sampling bias and therefore limitation in generalizing the results to other areas.

CHAPTER 5

5.0 RESULTS

5.1 Introduction

Four hundred and seventy seven respondents formed the study sample population of adolescents with the aim of determining the factors that influence their sexual behaviour patterns. The factors under consideration included socio-demographic characteristics, knowledge, and perception. Other factors considered were sex education obtained, availability of information and dissemination methods.

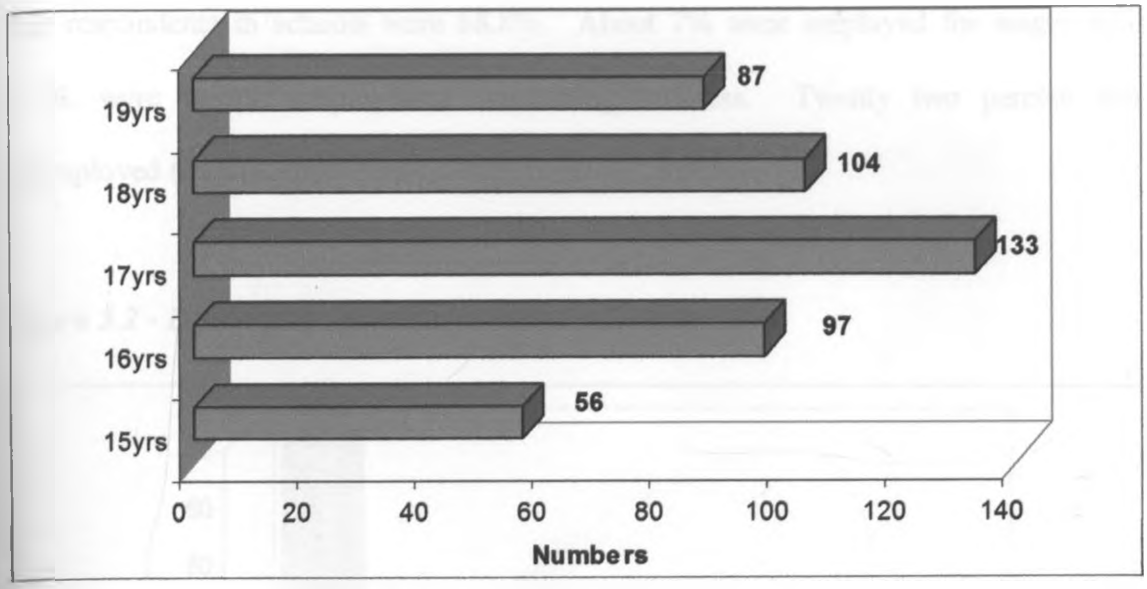
The study considered adolescents in the age bracket 15-19 years, an age cohort that can easily be compared with cohorts in larger studies.

5.2 Socio-Demographic Characteristics

5.2.1 Age

The mean age was 17.2 years and the mode and median were both equal to 17 years (Figure 5.1). About half the respondents (49.7%) were aged between 17 and 18 years.

Figure 5.1 - Age distribution of the Respondents



5.2.2 Gender

The gender was more or less evenly distributed having been predetermined during sampling, with males being 47.4 % and females 52.6 %.

5.2.3 Religion

Christianity was dominant (98.1%) in this sample with Protestants being the majority at 63.1%. Catholics were 35.0% and Muslims 1.1%. Only 0.9 % of the respondents had no religious inclination.

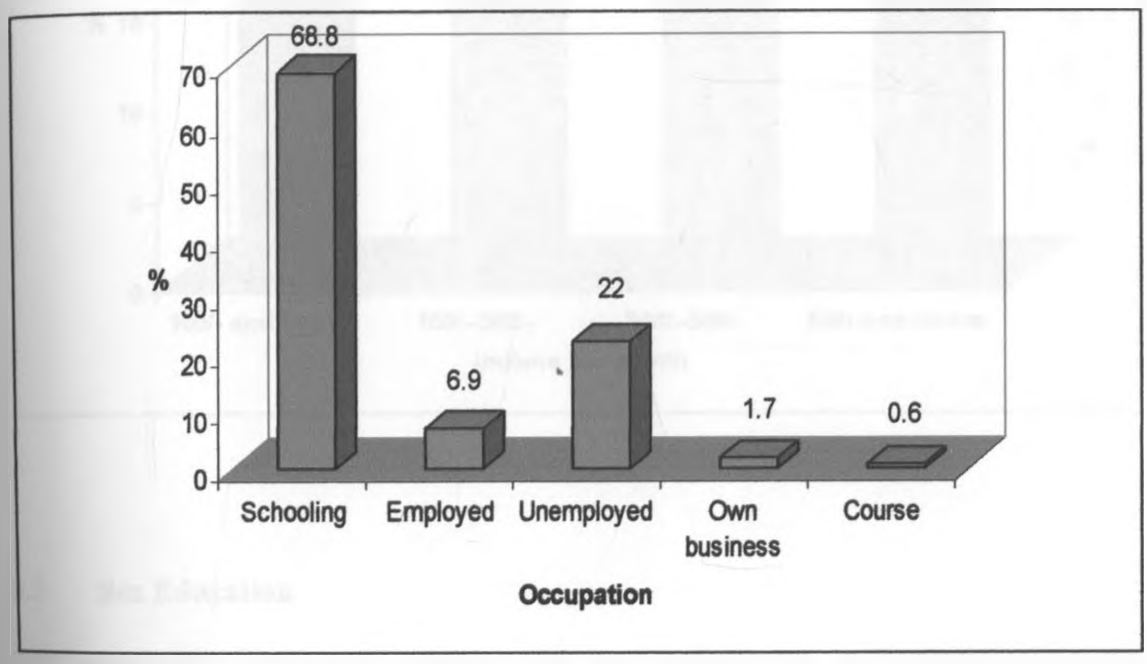
5.2.4 Marital Status

Most of the respondents were single (95.4%). This implies that in this sample, the out of school respondents were still mostly single. The rest were married (4.2%), separated (0.2%) or widowed (0.2%).

5.2.5 Occupation

The respondents in schools were 68.8%. About 7% were employed for wages while 1.7%, were in self employment conducting business. Twenty two percent were unemployed (Figure 5.2).

Figure 5.2 - Distribution of the Respondents' Occupation



5.2.6 Economic Status

The amount of pocket money respondents had per month was used as a proxy for the economic status. Figure 5.3 shows the adolescents' distribution of pocket money per month. The respondents were more or less evenly distributed across the categories listed, where 27% fell in the category of 100/- to 300/- while 27.2% fell in the category of those having more than 500/-.

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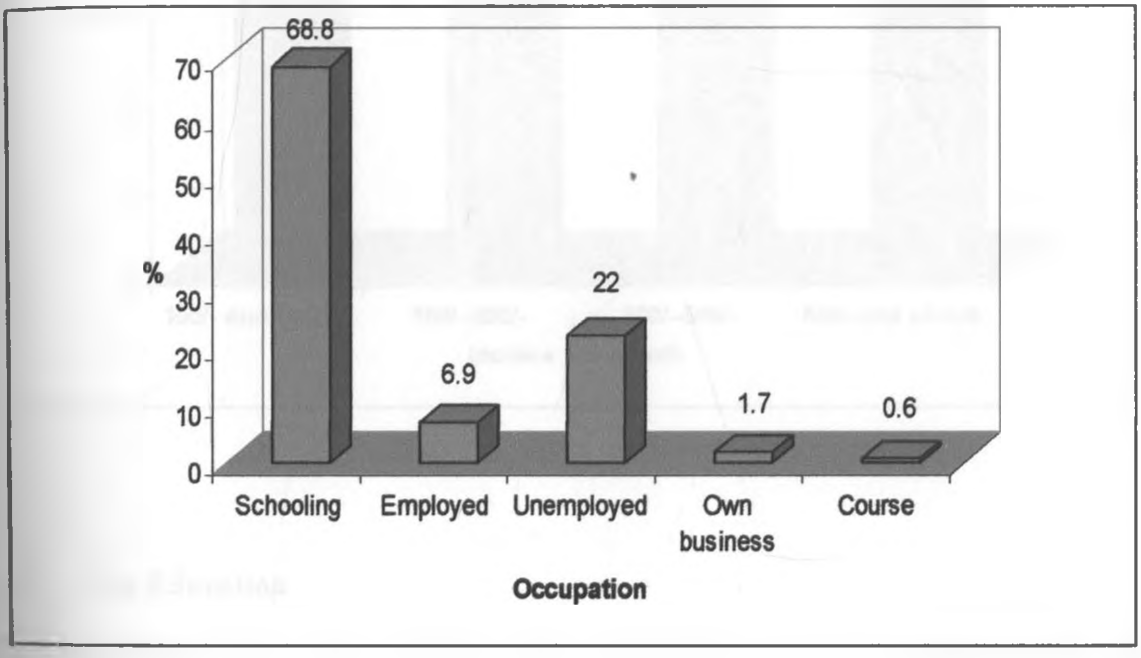

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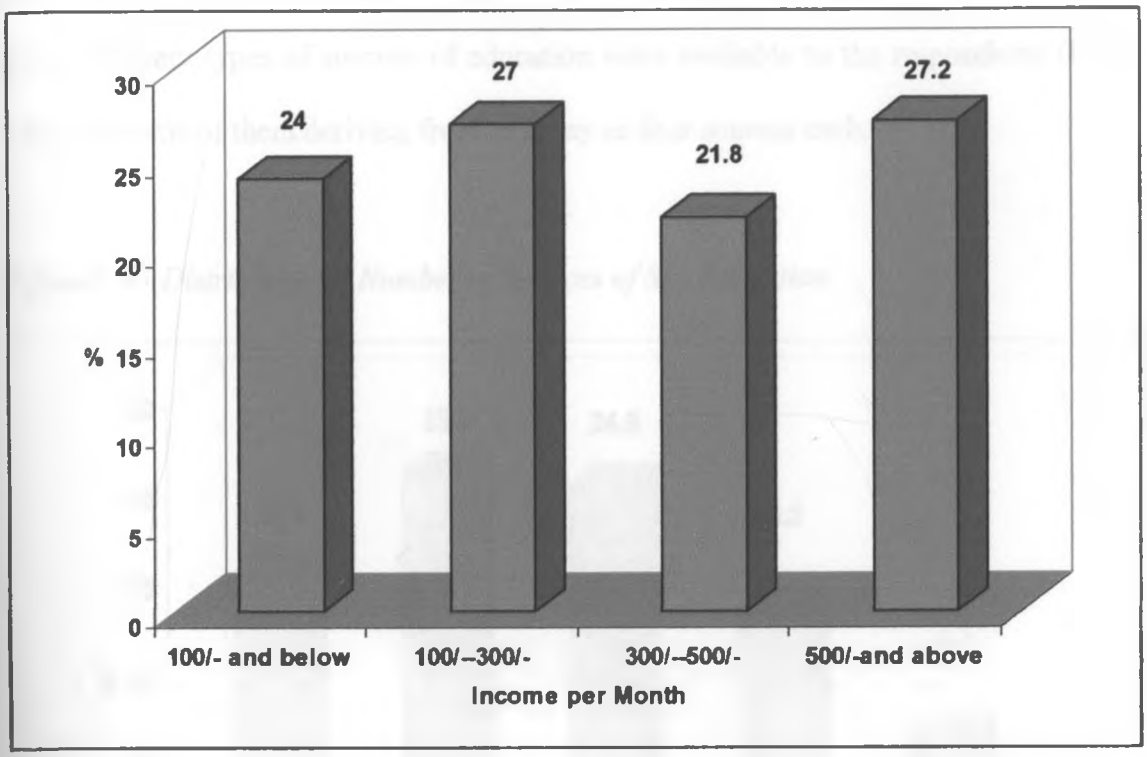
Figure 5.3 - Distribution of Respondents' Pocket Money per month.



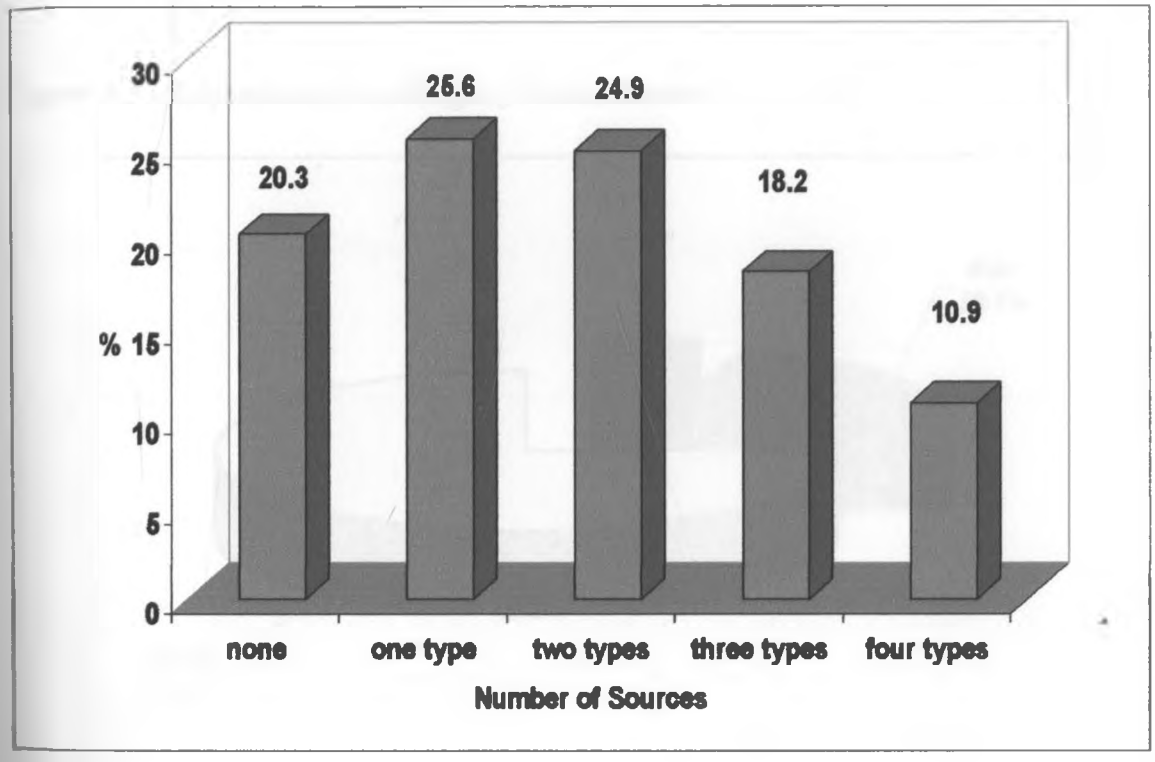
5.3 Sex Education

The respondents were asked whether they had obtained any sex education from any source, whereby a majority 80.5% said they had. Only 19.5% of the respondents had not obtained any training on sex education in or out of school. When the respondents were asked what their source of sex education was, responses included sex education and counselling in schools (75.4%); in church (52.4%); programmes on radio and TV (45.0%); sex education and counselling out of school (22.8%) and peer education programmes (21.5%). Others mentioned included hospital and youth camp (0.9%). The FGDs confirmed that the protestant churches held seminars for the youth and that the

topics taught were on sexual and moral issues. At the time, the programme running in schools and out of schools addressing sexual issues was also church based.

Many different types of sources of education were available to the respondents (Figure 5.4) with some of them deriving from as many as four sources each.

Figure 5.4 - Distribution of Number of Sources of Sex Education

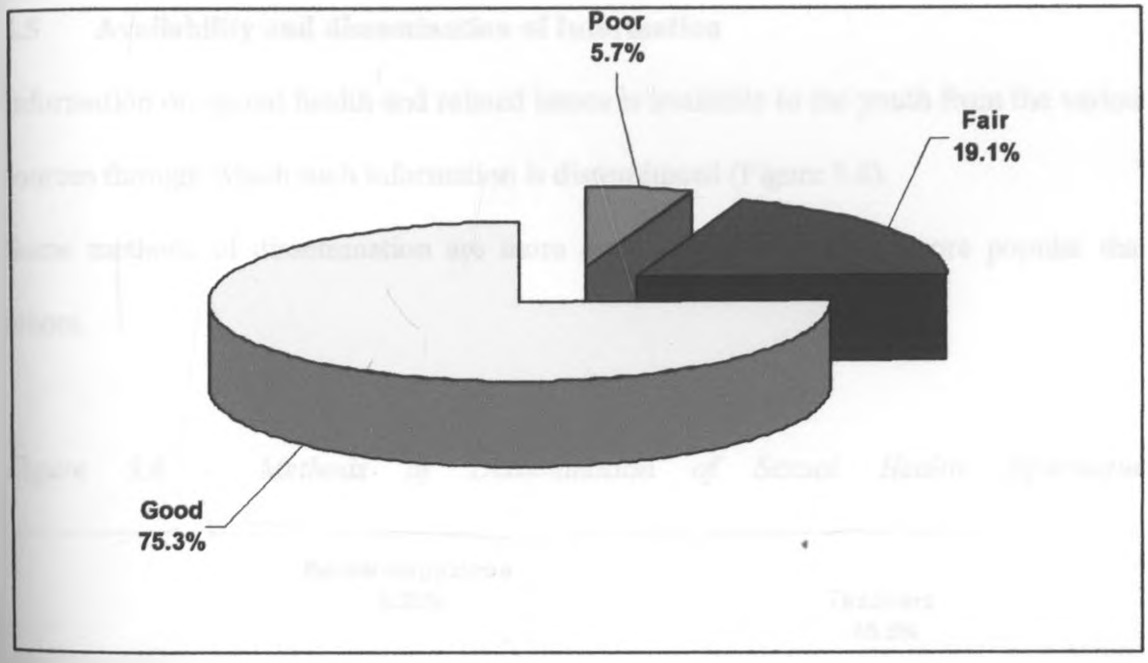


5.4 Knowledge

When the respondents were asked whether they knew of any contraceptives (which was taken as the indicator for knowledge of sexual issues) 94.3 % responded affirmatively while 5.7% knew none. Most (89.8%) respondents knew male condoms while 56.1% knew the pill. The FGDs supported that male condoms were common knowledge with one group saying that "even primary school kids know about condoms".

With respect to the different types of contraceptives that the respondents knew, (Figure 5.5), it was revealed that a majority (75.3%) had knowledge of more than one type and 19.1% knew one type. About 43% of the respondents knew 2-4 types while 6.3% knew more than eight types of contraceptives. Modern contraceptives known to the respondents are specified because the FGDs revealed that adolescents used other myth contraceptives like castor seeds, lemons and undiluted juice.

Figure 5.5 - Respondents Knowledge of Sexual Matters



When asked about their source of knowledge on contraceptives the results revealed that books and magazines were the most popular, providing information to 68.2 % of the respondents, while Radio and TV provided to 61.6 % (Table 5.1). The "other" 4.2% mentioned included doctor, boyfriend and church. In the FGDs it was expressed that "parents keep off" talking to the youth about sexual issues.

Table 5.1 - Respondents Source of Knowledge

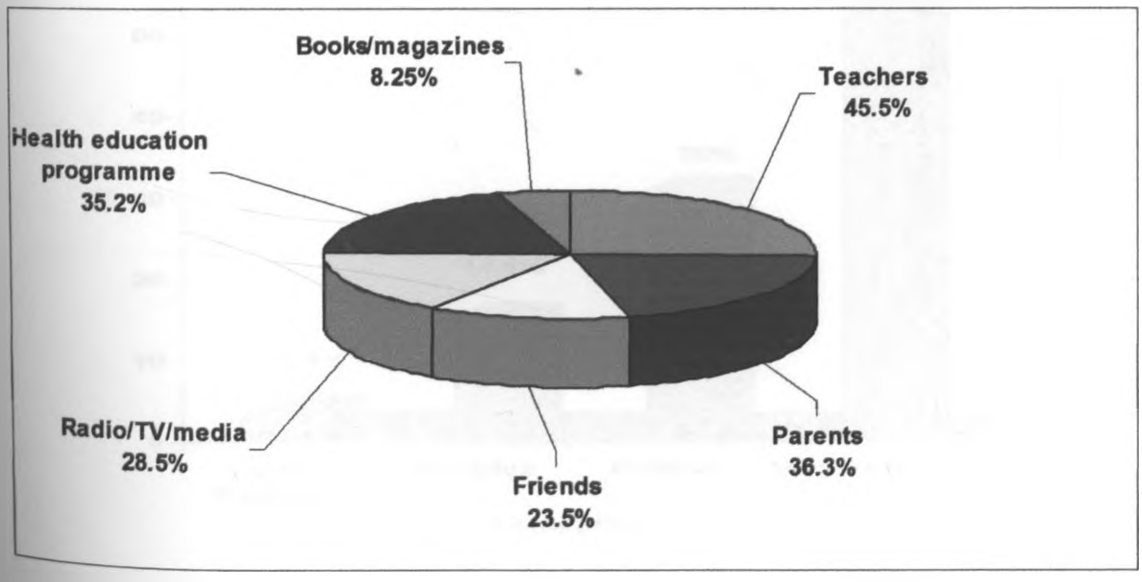
Sources of Knowledge	Frequency	%
Books and magazines	311	68.2
Radio /TV	281	61.6
Friends	270	59.2
Teachers	216	47.4
Health education programme	212	46.5
Parents	71	15.6
Relatives	67	14.7
Others	20	4.2

5.5 Availability and dissemination of Information

Information on sexual health and related issues is available to the youth from the various sources through which such information is disseminated (Figure 5.6).

Some methods of dissemination are more available, accessible or more popular than others.

Figure 5.6 – Methods of Dissemination of Sexual Health Information



5.6 Perception

Responses to several questions on perception of sexual activity among the adolescents were coded and analysed to give a minimum to maximum score of 0-8. These were divided into four categories' each having 25% of the possible score. They were categorised as: -

< 2 - very negative

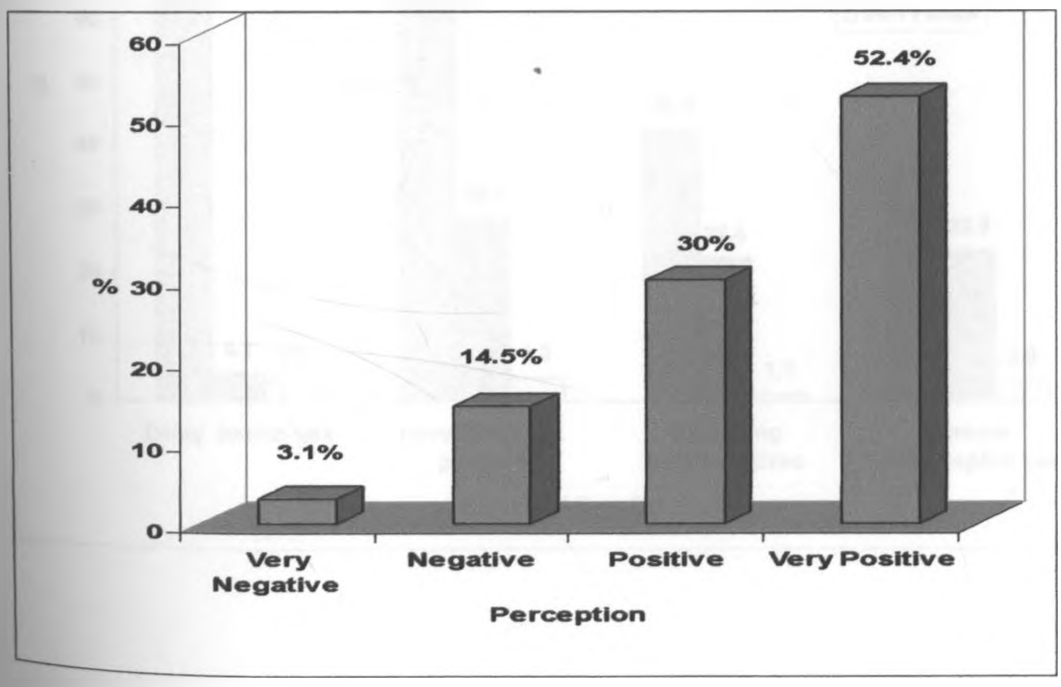
3 and 4 – negative

5 and 6 – positive

7 and 8 – very positive

Majority of the respondents (52.4%) had very positive perception and a minority 3.1% had very negative perception of sexual matters and engaging in sexual activity (Figure 5.7).

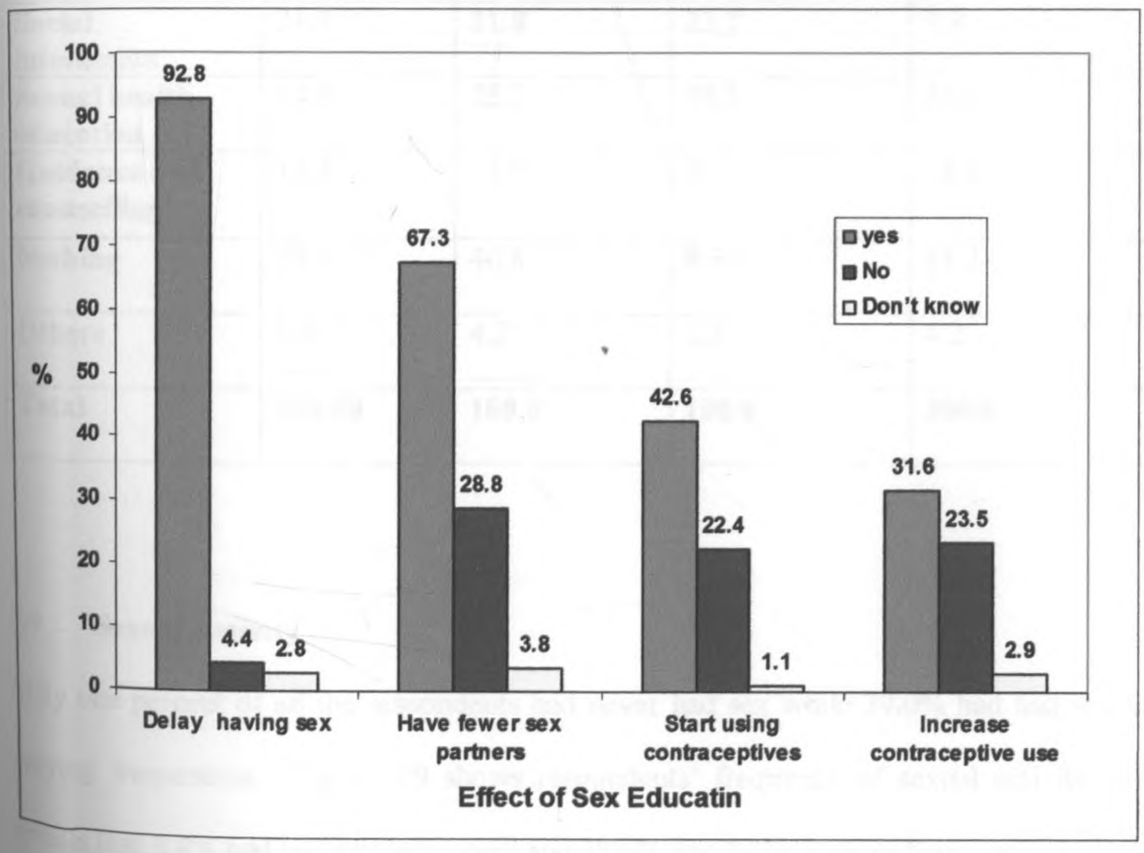
Figure 5.7- Respondents Perception of Sexual Activity



5.7 Relevance of Available Sex Education and Information

To find out whether the available information on sexual matters was relevant, majority (92.8%) of the respondents reported a behaviour change where they had delayed having sex, had had fewer sex partners, had started or increased contraceptive use, (Figure 5.8). The FGDs confirmed this finding, further revealing that the male adolescents had one girlfriend at a time especially 'in these days of AIDS'. They said they studied the girls first and did not enter into a relationship with a girl if she was known to have another boyfriend.

Figure 5.8 - Effects of Sex Education on Respondents' Sexual Behaviour



5.8 Felt Needs of Adolescents in Matters Relating To Their Sexual Health

The adolescents responded to a group of questions to find out the areas in which they felt they needed help in order to either delay or avoid sex. The results are presented in Table 5.2. It emerged that adolescents mostly needed sexual health education followed by guidance on how to control their feelings when relating socially with each other. However 35.8% and 40.8% felt no need for anything to delay or avoid sex respectively.

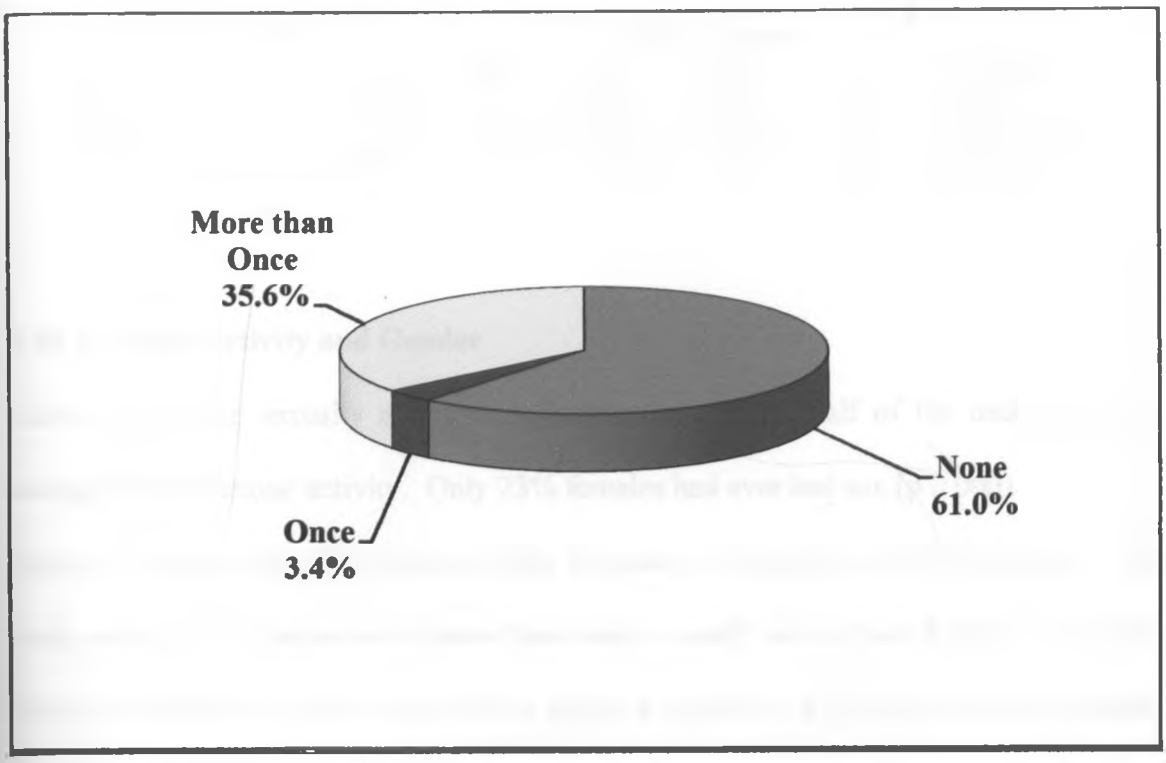
Table 5.2 - Respondents Felt Needs in Percent

Information needed	To delay sex	To avoid sex	To help in sex matters	Issues to be provided with
Social interaction	21.7	21.8	22.7	7.8
Sexual health education	24.4	22.2	58.3	53.4
Guidance and counselling	13.3	11.0	8	18.4
Nothing	35.8	40.8	8.7	11.2
Others	4.8	4.2	2.3	4.2
Total	**100.00**	**100.0**	**100.0**	**100.0**

5.9 Sexual Activity

Sixty one percent of all the respondents had never had sex while 39.0% had had sex in varying frequencies. Figure 5.9 shows respondents' frequency of sexual activity and reveals that 3.4% had had sex only once; and 35.6% had had sex more than once.

Figure 5.9 - Sexual Activity of the Respondents (N = 466)



5.10 Relationship between Sexual Activity and Socio-Demographic Characteristics

5.10.1 Sexual activity and age

Sexual activity increases with age to the point where about half of the 18 and 19 year olds had initiated coitus, (Table 5.3). These findings are statistically significant (χ^2 =45.048; 2 df; p = 0.000). The youth believe that "It is advisable to break virginity before 20 years otherwise you'll have problems getting children", and they claimed the source was from a magazine.

Table 5.3 - Sexual Activity of Respondent by Age in Percentages (N = 472)

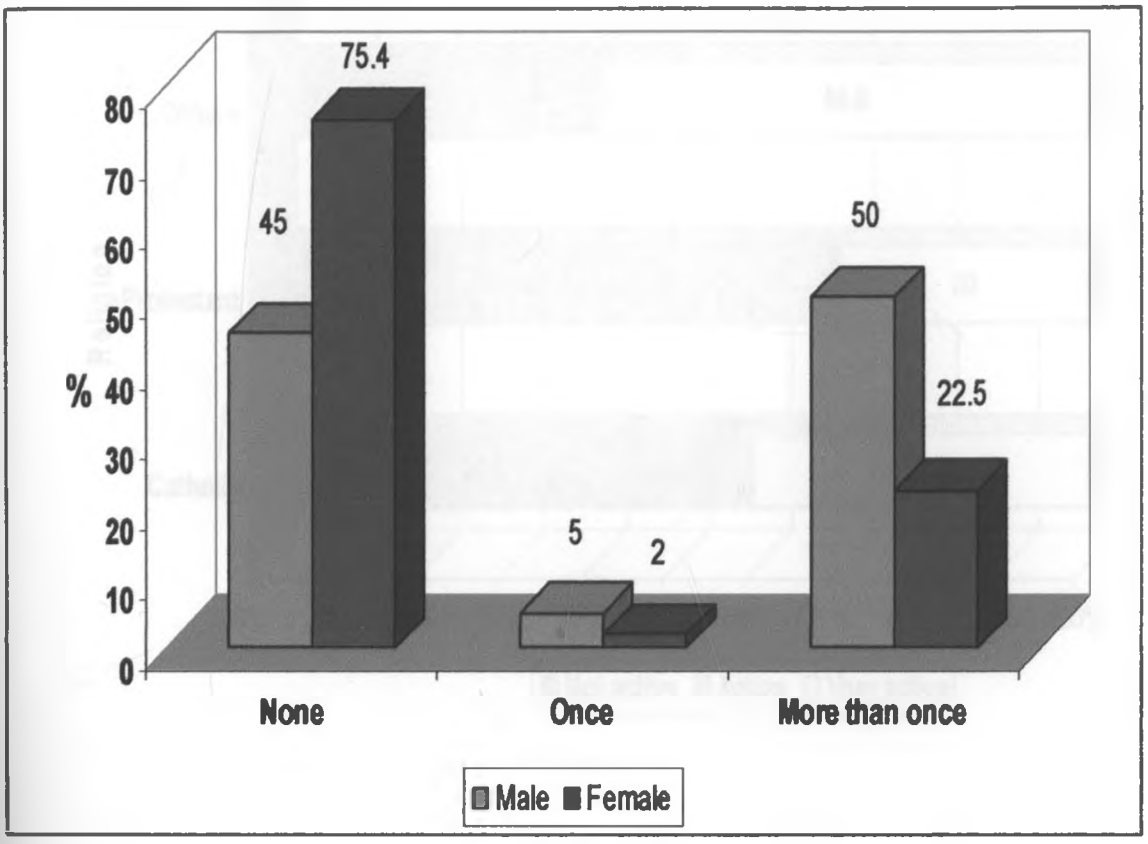
Sexual Activity	Age in Years					
	15	16	17	18	19	Total
Yes	19.6	32.3	33.1	48.5	46.0	39.0
No	80.4	67.7	66.9	51.5	54.0	61.0

5.10.2 Sexual Activity and Gender

Males were more sexually active than females, with over half of the males (52.4%) having initiated sexual activity. Only 23% females had ever had sex (p 0.000).

Figure 5.10 shows the distribution of the frequency of sexual activity by gender. The study revealed that males were more than twice sexually active than females. Multiple sexual activities are more common than single experiences for both males and females but more so for the males. This is statistically significant ($\chi^2 = 45.048$ p = 0.000 df = 2) and is similar to KDHS (2003) findings that the median age for male first intercourse, 17.1 years, is lower than for females, 17.8 years. It is believed that "if a boy has sex with many girls he is sharp minded", but for the girls virginity is valued and it is believed that girls who have broken their virginity won't have good marriages. Further more, such girls have been given names like "kihanya" (a person who touches this and the other) "makuro" (left overs).

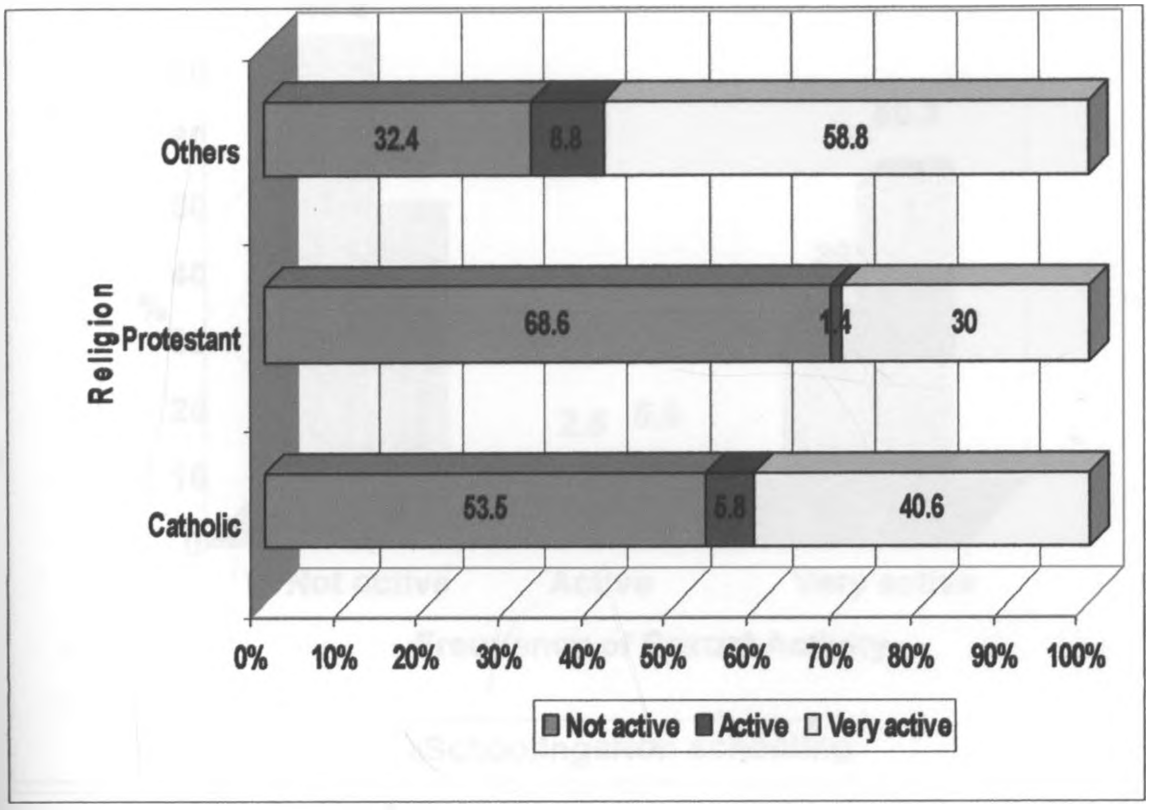
Figure 5.10- Frequency of Sexual Activity of Respondents by Gender (In Percentages) (N = 456)



5.10.3 Sexual Activity and Religion

Catholics were more sexually active (40.6%) than protestants (30.0%). 'Others' included Muslims and those with no religious affiliation, and 58.8% of them were active (n = 466; p = 0.000). Among the religious affiliates, protestants were more 'not active' (68.6%) than the Catholics (53.5%), Figure 5.11.

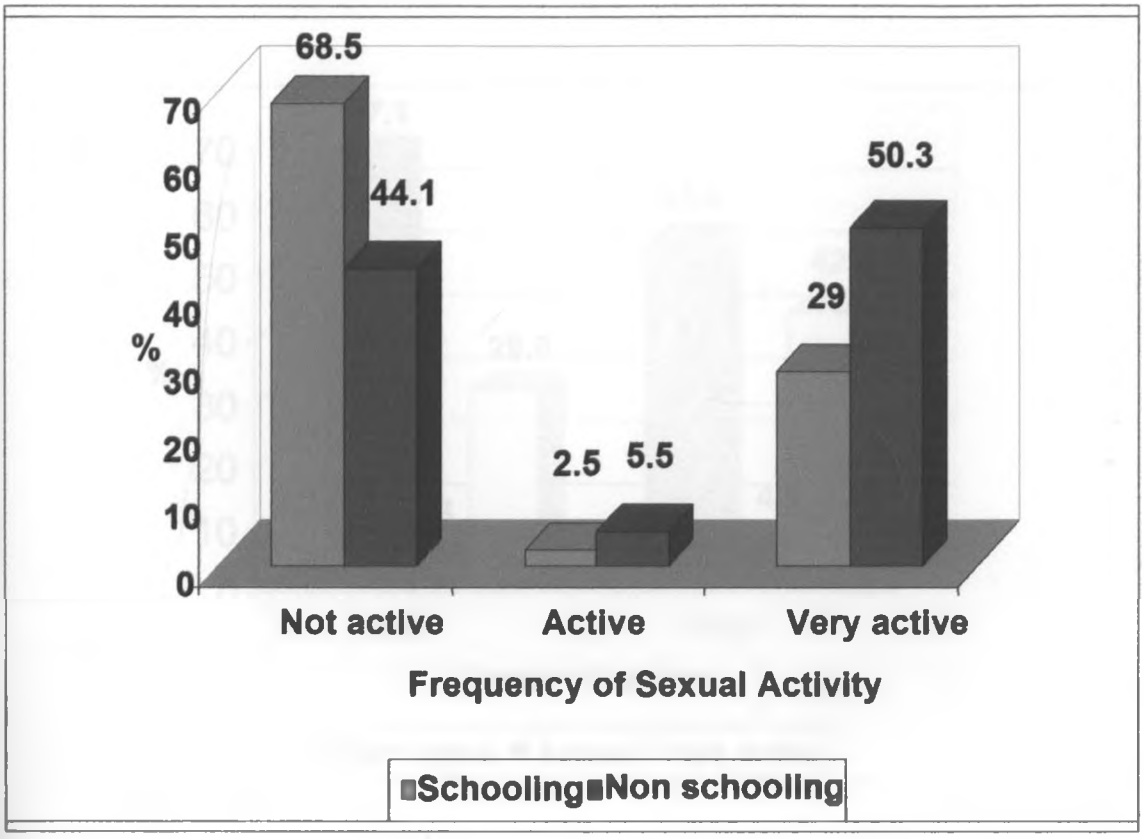
Figure 5.11 - Frequency of Sexual Activity of Respondents by Religion (In Percentages) (N = 466)



5.10.4 Sexual Activity and Occupation

The schooling respondents had less sexual activity (68.5% were not active) while over half of the non schooling respondents were active, as shown in table 5.12. Generally among the non schooling, there was no difference in activity between the employed and the unemployed, activity being 52.3% and 54.4% respectively. This relationship is statistically significant ($\chi 2 = 25.226$ $p = 0.000$ $df = 2$).

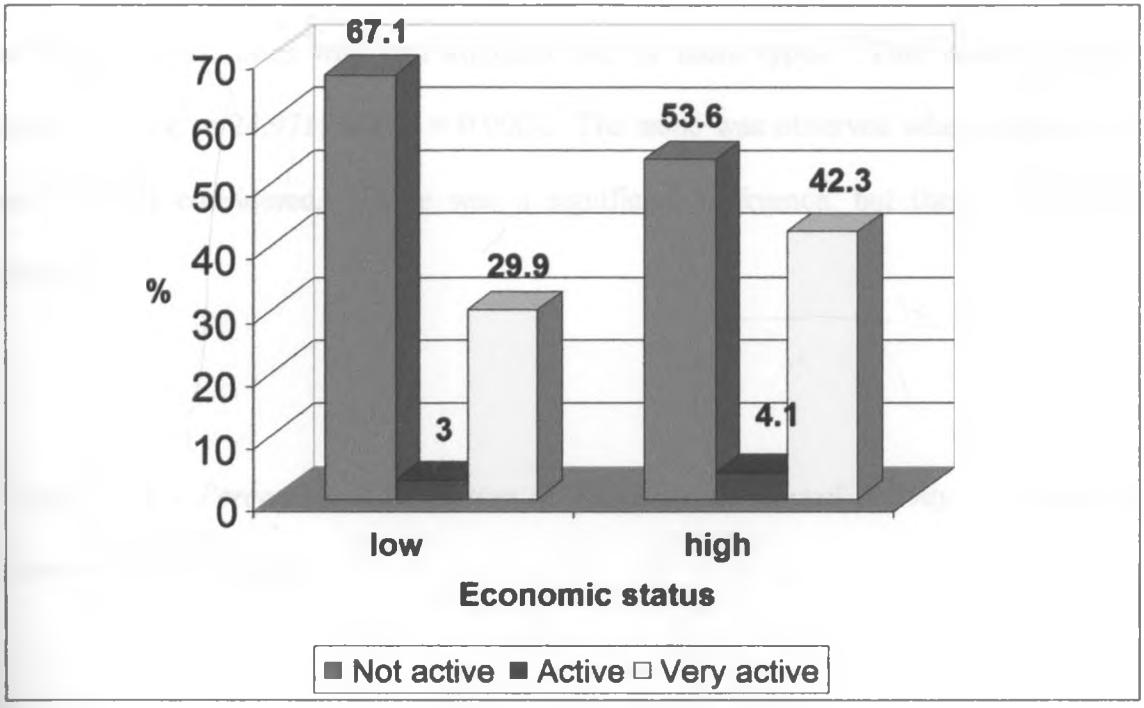
Figure 5.12 - Frequency of Sexual Activity of Respondents by Schooling Status (In Percentages) (N = 466)



5.10.5 Sexual activity and Economic Status

Figure 5.13 shows frequency of Sexual activity of respondent by economic status. High economic status was associated with increased sexual activity. Among the very active those with high income were more (42.3%) than those with low income (29.9%). This is statistically significant, (χ^2= 8.557; 2df; p = 0.014).

Figure 5.13- Sexual Activity of Respondents by es in Percent (N = 451)

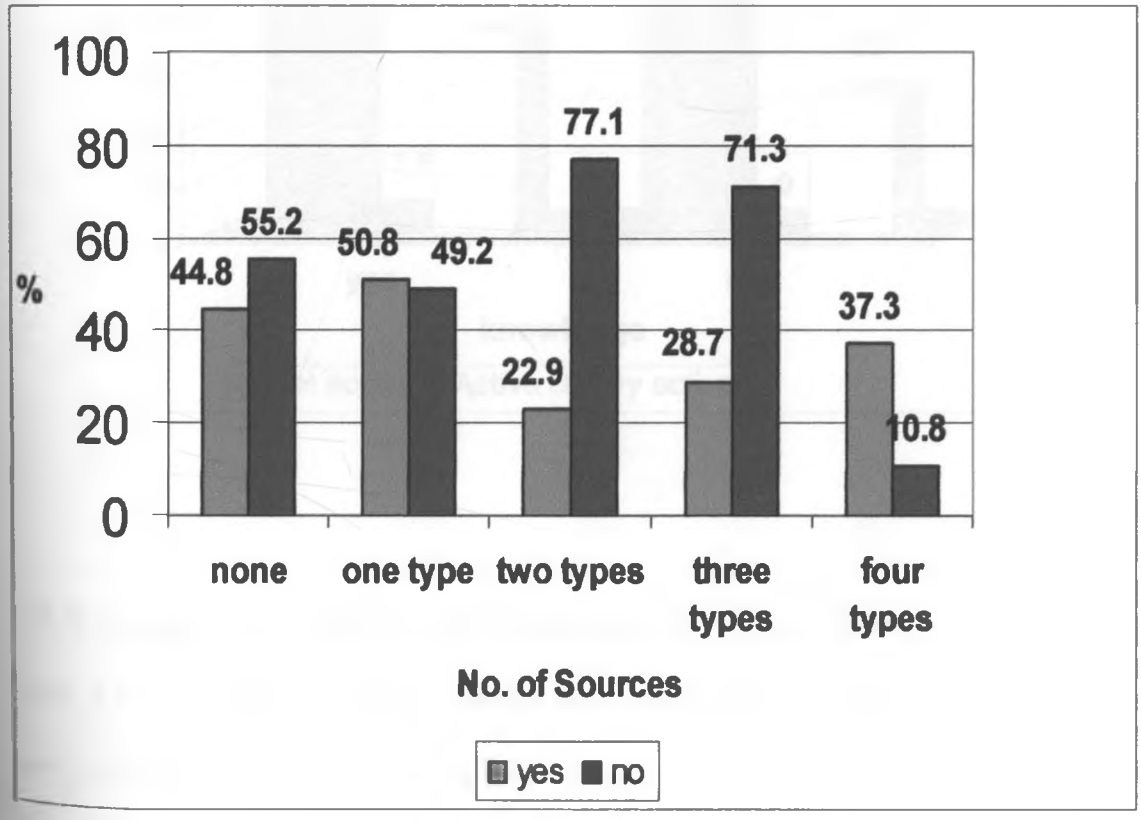


5.10.6 Sexual activity and Sex Education

Figure 5.14 shows sexual activity by sex education among the respondents. Those who had not attended any sex education were more sexually active (45.7%), than those who had ever attended (35.0%). This implies sex education is relevant to adolescents' sexual behaviour since it is associated with reduced sexual activity. However this difference was not statistically significant ($\chi^2 = 3.602$ df = 1 p = 0.058). When frequency of activity was taken into account, 44.0% of the 'very active' had not had any sex education which was higher than those who had had any sex education (33.6%). But this too was not statistically significant, ($\chi 2 = 5.609$; 2df; p = 0.061). However when the respondents

were categorised into the number of different education types attended, increasing the number of types of sex education increased the percentage of those with no sexual activity; i.e. the ones who had attended none or one type of sex education had more activity than the ones who had attended two or more types. This was statistically significant, (χ^2 = 24.971; 4df; p = 0.000). The same was observed when frequency of activity was considered. There was a significant difference, but there was loss of validity.

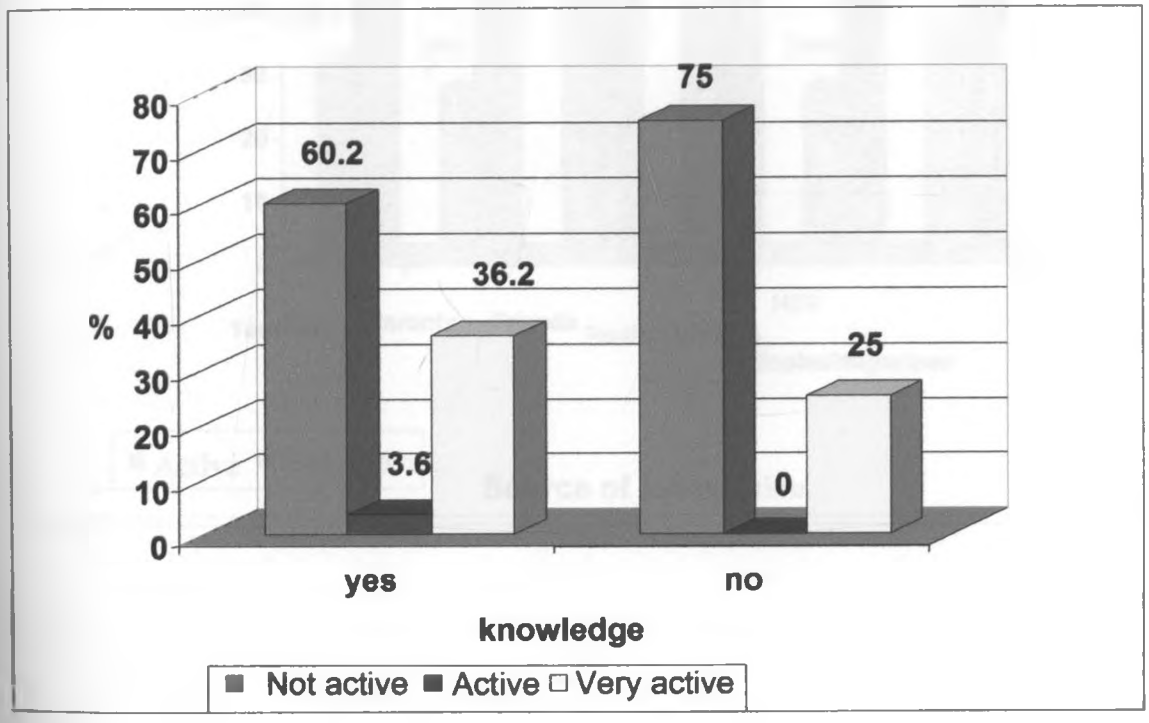
Figure 5.14 - Percentage Distribution of Respondents' sexual activity by number of sources of Sex Education



5.10.7 Sexual activity and knowledge

The respondents with any knowledge of sexual matters were more active (37.9%) than the ones without any knowledge (23.1%). However this is not statistically significant, (χ^2 = 2.311; 1df; p = 0.128). Sexual activity increased as knowledge increased, (Figure 5.15), but this was also not significant, (χ^2 = 2.749; 2df; p = 0.253).

Figure 5.15- Respondents frequency of sexual activity by knowledge (in percent)



5.10.8 Sexual Activity and Sources of information on Sexual Matters

Table 5.16 shows that teachers, parents and health education programmes (HEP) as sources of information on sexual matters were associated with lower sexual activity, than

Radio/TV/Video and Books/Magazines. Friends as a source of information were associated with the most sexual activity.

Table: 5.16– Respondents' Sexual Activity by Sources of Information

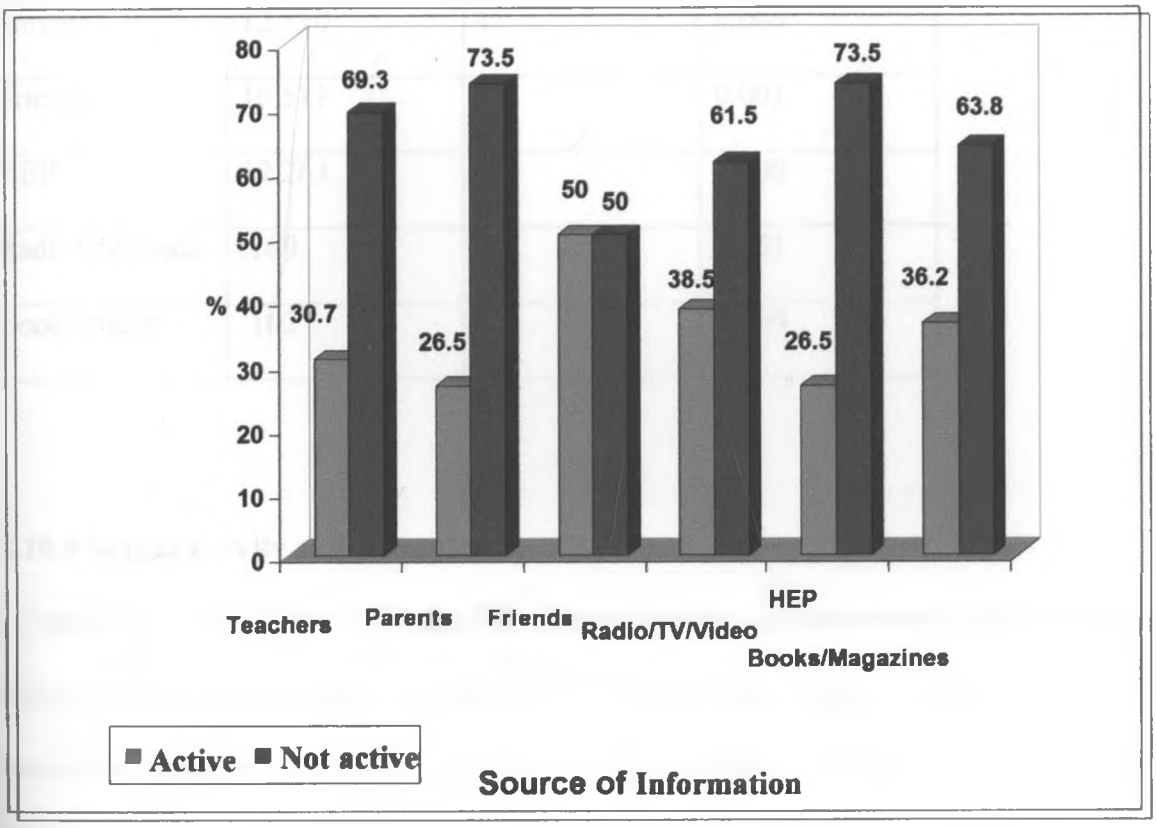


Table 5.4 lists the results of the statistical tests of the relationship between sexual activities of the respondents and the source of information on sexual matters. Teachers, parents, HEP, made a significant difference on respondents' sexual activity. The relationship between friends and sexual activity was significant.

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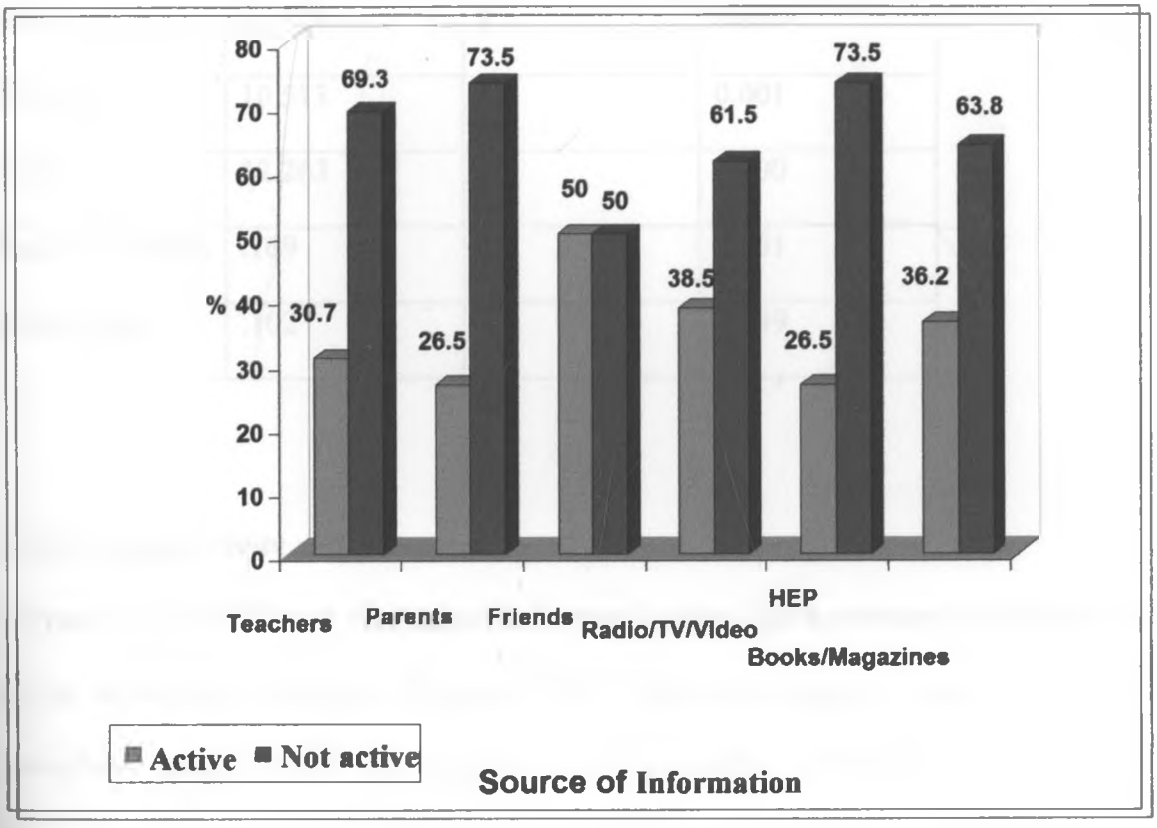

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Table 5.4 Sources of Information – statistical test.

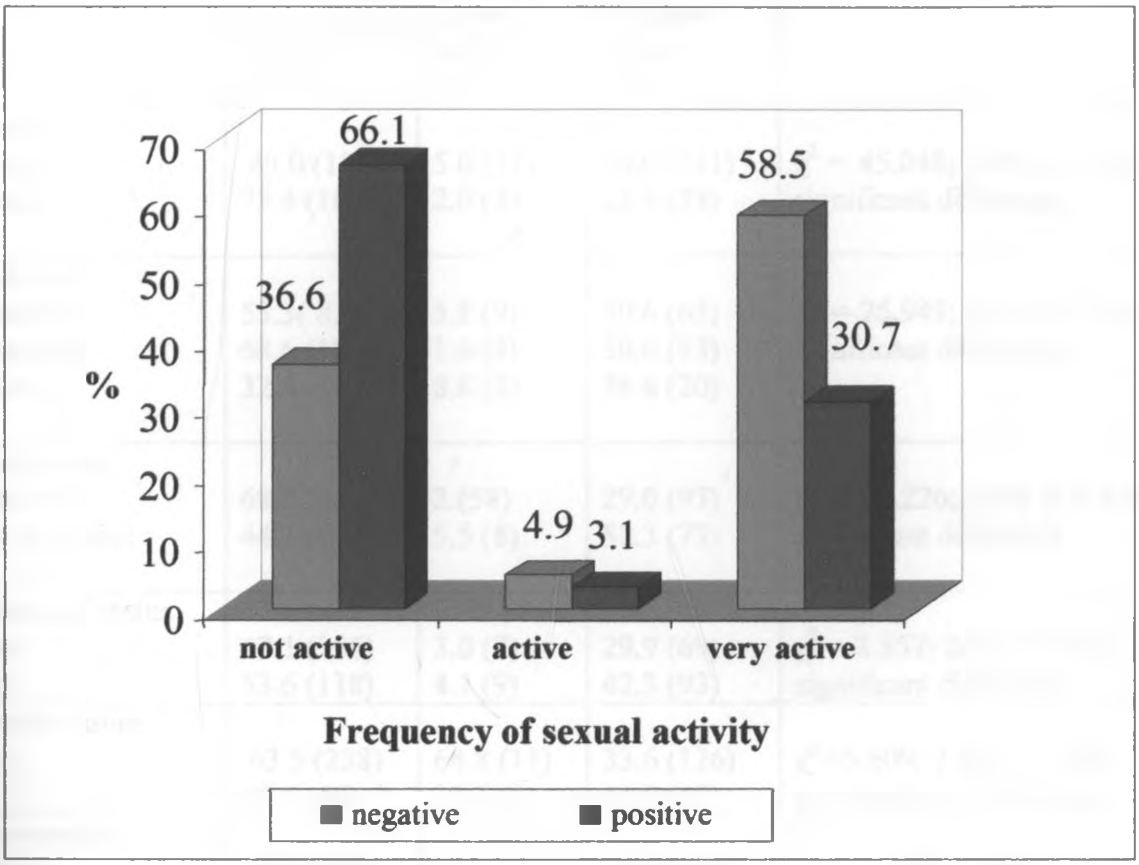
Variable	Chi square	df	P value
Teachers	6.886	1	0.000
Parents	12.810	1	0.000
Friends	10.513	1	0.001
HEP	12.263	1	0.000
Radio/TV/media	.169	1	0.681
Books/magz	.102	1	0.749

5.10.9 Sexual activity and perception

As perception shifts from very negative to very positive, the percentage of the sexually active adolescents decreases, (Figure 5.17). There was a rise in 'none' activity as perception changed from very negative to very positive. Majority (75.4%) of the respondents who were not active had very positive perception, (χ^2 = 43.369; 3df; p = 0.000).

There is more frequent sexual activity among those with negative perception as opposed to those with positive perception (χ^2 = 24.961; 2df; p = 0.000).

Figure 5.17– Respondents' frequency of sexual activity by perception



5.11 Influence of Factors on Frequency of Sexual Activity

Table 5.5 shows a summary of results when the independent variables were analysed against frequency of sexual activity. Knowledge of sexual matters made no significant difference to the sexual activity of the respondents. There was also no significant difference in frequency of sexual activity between a respondent who attended sex education training and one who did not attend.

Table 5.5 Summary of chi-square results

Independent variable	**Dependent variable**			**Statistical test (chi-square)**
	N active %(n)	**active %(n)**	**V active %(n)**	
Gender Male female	45.0 (100) 75.4 (184)	5.0 (11) 2.0 (5)	50.0 (111) 22.5 (55)	χ^2 = 45.048; 2 df; p = 0.000 significant difference
Religion Catholic protestant others	53.5(83) 68.6 (190) 32.4 (11)	5.8 (9) 1.4 (4) 8.8 (3)	40.6 (63) 30.0 (83) 58.8 (20)	χ^2 = 25.947; 4 df; p = 0.000 significant difference
Occupation In school Not in school	68.5 (220) 44.1 (64)	2.(58) 5.5 (8)	29.0 (93) 50.3 (73)	χ^2 = 25.226; 2 df; p = 0.000 significant difference
Economic status Low high	67.1 (155) 53.6 (118)	3.0 (7) 4.1 (9)	29.9 (69) 42.3 (93)	χ^2 = 8.557; 2df; p = 0.014 significant difference
Sex education Yes no	63.5 (238) 50.5 (46)	68.8 (11) 31.3 (5)	33.6 (126) 44.0 (40)	χ^2=5.609; 2 df; p = 0.061 no significant difference
Knowledge Yes no	60.2 (266) 75.0 (18)	3.7 (16) 3.8 (0)	36.2 (160) 25.0 (6)	$\chi 2$ = 2.749; 2 df; p = 0.253 no significant difference
Perception Negative Positive	36.6 (30) 66.1 (254)	4.9 (4) 3.1 (12)	58.5 (48) 30.7 (118)	χ^2 = 24.961; 2 df; p = 0.000 significant difference

5.12 Regression analysis

Logistic regression analysis was performed to find out the effect of each of the independent variables (age, religion, occupation, sex education, number of sources of sex education, perception, knowledge, and economic status) on the sexual activity of the

respondents (dependent variable). After controlling for confounding factors, it was observed that gender, occupation, knowledge of contraceptives and perception were the only significant variables that predicted the outcome of sexual activity, (table 5.6). Males had a 3.38 chance of being more sexually active than females and could be up to 5 times more active. Chances of being sexually active were 1.755 times higher in adolescents with negative perception of sexual issues than those with positive perception and could be as high as 2.3 times more. The respondents who were not in school were likely to be almost twice as sexually active as the ones who were in school and this could be as high as three times more.

While previously knowledge of contraceptives had no significant effect on sexual activity, after controlling for confounding factors, the adolescents with any knowledge of contraceptives were found to be over 3 times more sexually active than those with none and could be close to 10 times more active.

Table 5.6 Logistic Regression for dependent variable sexual activity

Variable	Regression coefficient	Std. Error	Wald statistic	Degrees Of freedom	Significance	Odds Ratio	95% CI for OR	
							lower	Upper
Gender: *Male*	1.219	.216	31.740	1	.000	3.384	2.314	5.171
Occupation: *Not Schooling*	.663	.232	8.150	1	.004	1.940	1.231	3.058
Knowledge: *any*	1.201	.555	4.676	1	.031	3.322	1.119	9.863
Perception: *negative*	.563	.142	15.657	1	.000	1.755	1.328	2.319

5.13 Findings from focus group discussions

After the initial multistage sampling of the schools was done, random sampling was done to select one cluster, one girls boarding, one boys boarding and one mixed day schools.

Six focus group discussions were conducted each with 7-10 participants. Two were with the out of school adolescents; one for boys and one for girls, two were in a mixed day school, one for boys and one for girls. One was in a girls boarding and the other in a boys boarding.

The following information emerged from the FGDs.

The males and the females, the schooling and non-schooling adolescents held different views on sexual activity.

There is inadequate information on sex and sexuality for the adolescents and when speakers are invited to talk to the adolescents, they hurriedly talk about sex and quickly come to its consequences.

Fear may keep the adolescents from having sex, however curiosity and excitement are aroused and everybody wants to know what is in sex.

Once the few that engage in sex do so, they lose control and then get 'addicted', which may explain why very few have had sex only twice.

Churches like ACK and PCEA hold seminars for the youth to educate them on sexuality and sexual health, and give guidance on moral issues.

A lot of talking about sex goes on in schools among friends and peers.

Each teacher has a group of students to guide and counsel.

Parents 'keep off' talking about sex issues with their children. Adolescents think this is because the parents think the government is doing it.

Information about sex and sexual health should continue to be taught for the sake of the younger ones who do not yet know.

Reasons put forward that the few that engage in sex do so were as follows- :

Sex is enjoyable; did not think sex is bad; ignoring advice; to keep a boyfriend; illiteracy and curiosity.

Girls thought that 'sex is a dirty action'. This may be due to socialisation and the double standards on sexual activity that exist in Kenya.

Girls value their virginity in order to have good marriages later, but some are misinformed, e.g. to avoid problems of getting children later one has to break virginity before 20yrs.

Girls succumb to sex due to poverty or rape, but others don't have principles and say no when they mean yes and yes when they mean no, which may explain the rape incidence.

The out of school groups said that very few girls have not had sex.

Boys may avoid sex for fear of disease or girls getting pregnant. Yet some think HIV is 'a simple fever' or is 'not found in the villages'.

A boy is considered sharp minded if he has sex with many girls.

Boys trick the girls or get love portions from the old men in the village (in exchange for a meal) to get the girls to accept them for sex.

Boys take encouragement to have sex from the advertisements of condoms.

Sexual mind comes from idleness

CHAPTER 6

6.0 DISCUSSION

The study revealed that the 39.0% of adolescents in Laikipia who are sexually active by age 19 is lower than the national 85% and 60% noted in the KDHS, 1998 and 2003 respectively. Levels of sexual activity of adolescents in Laikipia are also lower than 80% of Sub Saharan Africa, as revealed by Noble, Cover, Yanagishita, 1996. As the study was conducted in a rural setting the sexual activity of adolescents in Laikipia was also lower than the 58% of a rural setting in a previous study done by Maggwa (1987) and KDHS, 1993. However FGDs pointed out that "few girls have not had sex" which was more likely to be the case in the out of school adolescents.

Several factors affect sexual behaviour in adolescents. One factor is age, in that the chance of becoming sexually active increases as an adolescent becomes older. At 18 and 19 years about half the adolescents had initiated sexual activity, which is slightly lower than results found in KDHS, 2003, which states that almost half to 60% of adolescents had had sex by the time they were 18 years. Once there is an initial sexual activity, the chance of having multiple sexual activities also increases with age. The 15 year age bracket had less multiple sexual activities probably due to their young age. In the FGDs it was pointed out that "some people (this was referring especially to girls) when they do it once they lose control and then they become addicted". Others are "trying to do like the Americans" a concept probably borrowed from the motion pictures the adolescents watch. However FGDs also support that out of school adolescent girls start engaging in sexual activities early relative to the adolescents in school; 'illiterate girls have sex early',

citing tricks boys use on them as the main cause. For example, 'if you have sex when you are standing up or you run very fast afterwards then you wont get pregnant'.

An adolescent male has higher chances of being sexually active, as the study revealed that males were more sexually active than females. This could be due to community socialisation that allows males to have sex while girls should not. However this was lower than the 60% cited in KDHS, 2003, for males by the time they were 18 years.

Religious orientation, especially the Christian faith and in particular protestant, has some restraining effect on sexual activity. Catholics were the more sexually active among the religious people analyzed. This difference may be attributed to differences in church doctrines. The non religious people were the most sexually active and had more multiple sexual activities. Strategies reaching church leaders, among others, to provide sex education, counselling and services to the youth, including helping parents to improve communication with their children, (Kiragu et. al., 1998; Black 1997) may have influenced this outcome.

Once adolescents leave school, the chances of initiating coitus are very high and over half of them actually engage in multiple sexual activities. As revealed in the FGDs, the out of school adolescents sometimes engage in sex because they are idle. When asked what they needed to help them deal with sexual issues, some of them cited money to start business, while others mentioned social activities like football clubs. The in-school adolescents in the FGDs also mentioned idleness as a reason for sometimes engaging in sexual activity. The boys said "Sexual mind comes when you are idle"; while the girls said that 'the reason the few girls who don't engage in sex manage to do so is because they keep themselves busy'.

But the study also showed that when an adolescent is both out of school and in business, chances of multiple sexual activities are even higher. This is probably because the economic status is elevated and he/she can impress a sexual partner or can afford commercial sex.

The study also revealed that higher economic status of adolescents is associated with higher levels of sexual activities. The FGDs noted that girls, and to a lesser extent boys, gave in to sex because of poverty, which led to a desire to have shopping done for them, or a desire for extra pocket money. However the FGDs also revealed that while some adolescent girls gave in to sex for necessities like sanitary pads, others gave in because of extras like perfumes and fashion, while others just had a strong desire for sex.

However, it is not clear whether it is the sexual activity that elevates the economic status, or whether it is the economic status that elevates the sexual activity. The direction of the relationship could even be both ways. Due to limitations of the sample size, secondary analysis was not done, to compare the difference of the association of sexual activity and economic status, between males and females. It may turn out that economic status is associated with increased activity in boys but not in girls. However when economic status was controlled for confounding factors, the relationship was not found to be significant.

In the FGDs the issue was raised that "the people who come to talk to (the adolescents) hurry very quickly over the topic, and get to talking about outcome so (they) don't get enough details". But the prevalent methods of disseminating information to the youth are teachers, parents and health education programmes. This order may reflect either preference or accessibility. However it is the adolescents who got information on sexual

matters from parents who were least likely to be sexually active followed by those who got from health education programmes and teachers. This concurs the finding of Gupta, Weiss and Mane, 1996, that young people who communicated with their mothers about sexual matters were less likely to be sexually active.

A need adolescents expressed was "that parents should talk about sexual issues with their children". This implies that there is a gap to be addressed first, if these avenues of dissemination are to be more effective in addressing the sexual issues of adolescents. Givaudan et al; 1997 and Jejeebhoy, 1998, reported that parents and teachers found it difficult to talk to young people about sexual matters, and that supportive programmes enhanced their competence and helped them overcome some of their worries.

The information that friends gave to each other enhanced sexual activity. This is important to note as intervention strategies could be designed around peer education to influence established norms, values and behaviour. Williams, 1996 and Lane, 1997, refer to the success of such initiatives in Nigeria and Ghana and that males were more receptive than females to peer education.

Church is not a good source of information about contraceptives, which may be because church doctrine is prohibitive or such issues are addressed to married people only. Nevertheless it is worth noting that the Christian church, especially the protestant church, had a significant positive influence in reduction of sexual activity among the adolescents, probably due to instilling moral values and giving moral guidance, which also emerged from the FGDs.

The study showed that knowledge of sexual matters (contraceptives) was associated with increased sexual activity. Indeed some methods of disseminating information to the

youth do not achieve the required effect. As was revealed in the FGDs, when condoms are advertised, the youth think they "were being encouraged to use them and that they were being encouraged to have sex". This implies that while designing information to be disseminated to the youth one ought to bear in mind the diverse behavioural changes such messages can result in.

However adolescents who had any sex education were less sexually active, regardless of the source. The more sources of sex education training one attended the less sexually active was the adolescent, but this finding was not statistically significant. However sex education programmes have been shown by Asiimwe-korir et al., 1997, to change knowledge attitudes and practices. It was also found in the study that sex education was associated with a change in sexual practices like delaying to have sex, having fewer sex partners, starting use of contraceptives or increasing contraceptive use. This revelation could be utilized to address change of behaviour patterns among the adolescents. But in Kenya, legislation and policies which prohibit sex education, or which restrict its contents are implicated in preventing many adolescent women and men from attaining optimum sexual and reproductive health.

The adolescents felt that "the Government was not taking morality seriously (like it did free primary education)", and that if it was, it "would abolish pornography" which they said contributed to their engaging in sexual activity. They however did not suggest how this should be done.

Perception is a determining factor of sexual behaviour as established by the study, with activity increasing as perception became more negative. It was that found that perception

of each individual issue affected sexual activity differently. This is an area that has been recommended for further study.

At the time of the study Youth Friendly Centres had not been established in the area. But since then several have been established and their influence on sexual activity is an area that is recommended for study.

6.1 CONCLUSIONS

Hypothesis testing

1. *Socio-demographic characteristics have no influence on sexual activity of adolescent:*

   For the following; *age, gender, religion, occupation, economic status;* $p < 0.05$, therefore rejected the null hypothesis.

   But for *sex education*, $p > 0.05$ therefore failed to reject the null hypothesis.

2. *Knowledge of sexual issues has no influence on sexual activity;* $p > 0.05$; therefore failed to reject the null hypothesis.

3. *Information methods have no influence on sexual activity*: For the following: *teachers, parents, friends, health education programmes* $p < 0.05$ therefore rejected the null hypothesis.

   But for *Radio/TV/Media, books/magazines,* $p > 0.05$, therefore failed to reject the null hypothesis

This study revealed that 61.0% of adolescents in Laikipia district had never had sex. Females were less sexually active than males.

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This study revealed that 61.0% of adolescents in Laikipia district had never had sex.

Females were less sexually active than males.

Adolescents had obtained some sex education in one way or another. There were high levels of knowledge of sexual issues among the adolescents in Laikipia district. Sex education and knowledge of sexual issues do not determine whether an adolescent will be sexually active or not.

Age, gender, religion, occupation, economic status, and perception are determinants of adolescent sexual behaviour, with perception being a very strong predictor on its own.

It should not be expected that sexual behaviour will change because knowledge levels are high. It can therefore be concluded that it is not a question of what or how much adolescents know about sexual matters e.g. consequences of sexual activity, HIV, pregnancy, contraceptives etc. that will determine a behaviour change towards sexual activity in adolescents. The outstanding determinant is whether perception of sexual activity is negative or positive. These perceptions are deep rooted and they originate from cultural socialization.

Parents, health education programmes and teachers have a protective influence against sexual activity, while friends increase the risk of sexual activity.

It is possible for adolescents to adapt positive behaviour changes but whether this happens or not is dependent on the type of information that they receive and how frequently they get it.

Christian faith and in particular protestant church has a significant positive influence in reduction of sexual activity among the adolescents probably by instilling moral values and giving moral guidance.

There is a need to keep adolescents constructively occupied since chances that they will engage in sex are increased when they are idle.

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There is a need to keep adolescents constructively occupied since chances that they will engage in sex are increased when they are idle.

6.2 RECOMMENDATIONS

1. There is need for the GOK's, Departments of Reproductive Health and Child Health, Youth ministry, and NGO's to continue disseminating information on sexual health to the youth, especially for the sake of the ones entering this age group, who do not yet have the information.
2. In order to change sexual behaviour among the youth, a fundamental change in approach focusing on "sexual socialization" is needed. This will involve the media, parents and the goodwill of the government, where the ministry of Health takes the leadership role of developing policy and guidelines.
3. A reading culture among the youth in school and out of school should be encouraged by teachers, parents and Kenya National Library Services, so that they can access the information on sexual health that is in books and magazines.
4. The government should encourage the church to take a bolder position as an intervention institution in adolescent sexual health.
5. GOK (Ministry of Social Services) should facilitate the formation of a Board to regulate reproductive health intervention messages for the youth. These messages should be designed to have clarity so as to achieve the desired behaviour change. Sexual health magazines, books and pamphlets targeting the adolescents, when printed should be left for them in places where they can access them easily, like youth friendly resource centres.
6. Intervention programmes through various Government ministries and NGOs should target the youth at an age before initiation of coitus, (10-15 years is

recommended) since once started, rising to higher levels of activity progresses rapidly.

7. Ministry of Social Services and Local Authorities should facilitate formation of youth social groups, clubs and other youth activities and the existing ones encouraged, while also creating awareness of their existence among the youth.
8. Groups working with intervention projects targeting non-schooling youth should focus, not only on income generation, but also on social activities that occupy and keep them busy.
9. Government should encourage churches and other organisations (e.g. giving guidelines) to have programmes for 'parents of adolescents,' in order to help them acquire and articulate skills, to talk to and guide their adolescents on sexual matters.
10. Parents ought to give their children enough provisions to remove the need for giving in to sex for provisions.
11. Ministry of Education should review the role of Family Life Education with a view to re-introducing it in schools' curricula.

eed for further study

1. A study on the effect of socio-economic status on sexual activity comparing males and females.
2. Further research on adolescent sexuality should be done to find out how perception of different issues relates to behaviour and how the findings can be used to make positive change.

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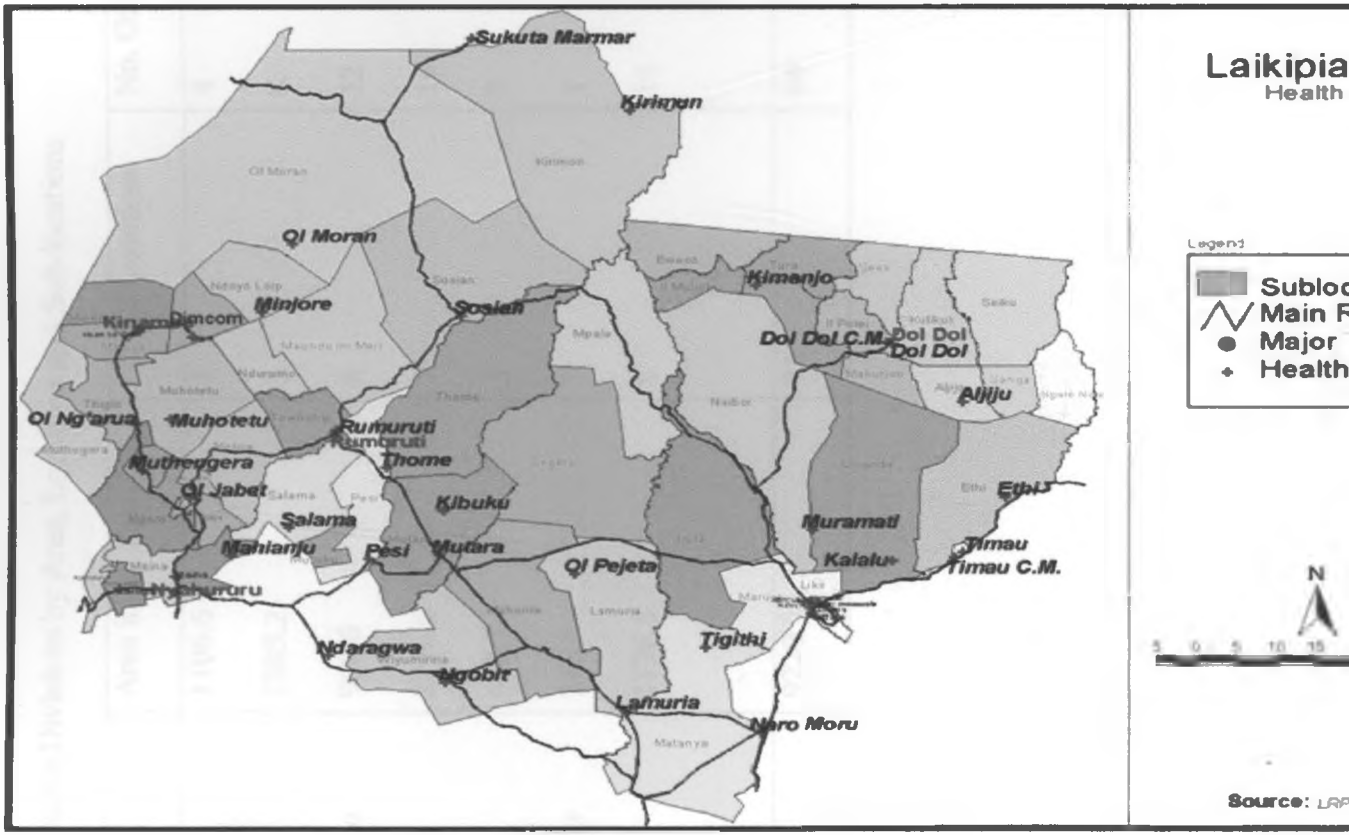
ANNEXES

BASIC DATA ON THE DISTRICT
Chapter 2 **Annex I: Map of Laikipia District**



Annex II

Administrative Divisions by Area, Locations and Sub-locations

Division	Area in sq. Kms.	No. Of Locations	No. Of Sub-Locations
Lamuria	1106.6	3	4
Central	2385.2	3	8
Mukogodo	968.6	6	12
Rumuruti	2716.5	7	18
Ngarua	628.1	5	7
Nyahururu	246.6	1	1
Olmoran	1176.5	8	14
Total	9229.9	33	64

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Total	9229.9	33	64

Annex III

Distribution of education facilities and enrolment by gender and division in Laikipia District.

Division	Primary schools			Secondary schools		
	No.	Boys	Girls	No.	Boys	Girls
Lamuria	35	5233	5167	2	218	192
Central	46	7745	7598	7	521	970
Mukogodo	14	1240	690	1	105	61
Rumuruti	54	8503	8137	7	661	561
Ngarua	60	10291	10029	6	575	1227
Nyahururu Municipality	15	3747	3671	4	532	825
Sub total		36759	35292		2612	3836
Overall total	224	72051		27	6448	

Annex IV

QUESTIONNAIRE

Please answer all questions below one by one after reading each one carefully.
Put a tick against the selected choice.
In some cases more than one tick is applicable
If space is provided, please put a tick in the applicable space.
Where an answer in your own words is required use the lines provided.

Serial number_____
Interviewer code_____
Day_____ month_____ year_____
Name of school: _____
Village: _____
Division: _____
Location: _____

Chapter 3 **Section 1- Social demographic information (put a tick next to the appropriate response)**

1. Age: _____ (number of completed years)
2. Religion
   - Catholic------
   - Protestant--------
   - Moslem---------
   - Other: specify_____
3. Marital status
   - Single ----------
   - Married----------
   - Separated---------
   - Divorced ---------
   - Widowed---------

4. Occupation
   - Schooling----------
   - Employed--------
   - Unemployed---------
   - My own business--------

Chapter 4 **Section 2- Education**

5. What is the highest class level in school you have completed?
   - None--------

Primary class 1-3 ---------
Primary class 4-6 ---------
Primary class 7-8 ---------
Secondary class 1-2 ----------
Secondary class 3-4 --------
Training course ----------
Other: specify----------

Chapter 5 6. Why are you not in school? **(Out of school adolescent)**

I have completed school----------
No school fees----------
I am married ----------
I am pregnant---------
I have a baby----------
I got tired and left---------
I was expelled--------
Others: specify_____

7. Have you attended any sex education training?
1 yes 2 no

8. Which sex education training have you attended?(You can put a tick to more than one in the space provided)

Sex education in school _____
In Church _____
Peer education programme _____
Programme on sexual health services _____
Life skill training _____
Programme of sex education and counselling _____
Other: specify

9. Did any of the things you learned help you to: -

Delay having sex	1 yes	2 no	3 don't know
Have fewer sex partners	1 yes	2 no	3 don't know
Start using contraceptives	1 yes	2 no	3 don't know
Increase contraceptive use	1 yes	2 no	3 don't know
Not at all	1 yes	2 no	3 don't know

Chapter 6 **Section 3- Sexual health perceptions**

10. In your society is sex before marriage allowed?
1 yes 2 no 3 don't know

11. Do you think sex before marriage is right for girls?

1 yes 2 no 3 don't know

12. Why?

_____

_____

13. When should girls start sex? (Tick the appropriate response)

Before 10 years_____
10-14 years ____
15-19 years ____
20-25 years ____
After school ____
Before marriage ____
After marriage ____

14. Do you think sex before marriage is right for boys?

1 yes 2 no 3 don't know

14. When should boys start sex?

10-14 years ____
15-19 years ____
20-25 years ____
26 and above ____
After school ____
Before marriage ____
After marriage ____

15. Do you think boys and girls can avoid sex these days?

1 yes 2 no 3 don't know

16. Do you know of any situations where a person cannot avoid sex these days

1 yes 2 no 3 don't know

17. Do you think a person can say no to sex?

1 yes 2 no 3 don't know

18. Does sex before marriage have any bad effects on people?

1 yes 2 no 3 don't know

19. If yes which bad effects do you know of that can occur when people have sex before marriage? **(More than one response is acceptable)**

Unwanted pregnancy ____

STIs/HIV/AIDS _____
Discontinued from school _____
Death _____
Others: specify

_____

20. What problems do you think girls face so that they accept unwanted sex?

_____

21. What problems do you think boys face so that they accept unwanted sex?

_____

Chapter 7 **Section 8- Knowledge**

22. Have you heard of contraceptives? 1 yes 2 no

23. Do you know of any contraceptives? 1 yes 2 no 3 don't know

24. Which contraceptive methods do you know of?
(More than one response is acceptable)

Pill-----
Coil-------
Foam tablets-------
Withdrawal---
Natural method (rhythm) --------
Condoms ----------
Injection --------
Vasectomy
Other: specify----------

25. Where did you get this knowledge about contraceptives?
(More than one response is acceptable)

Teachers---
Parents------
Friends----------
Radio/TV---------
Health education programme-------
Relatives--------
Books and Magazines--------
Other: specify----------

Section 4- Behaviour **(To be read as boyfriend if you are a girl or as girlfriend if you are a boy)**

26. Have you ever had a boyfriend/girlfriend? 1 yes 2 no

27. Do you currently have a boyfriend/girlfriend? 1 yes 2 no

28. How many boyfriends/girlfriends have you ever had?
    None----------
    Less than 2 --------
    Less than 4 -------
    Less than 6 --------
    6 and above-------

29. Have you ever had sex? 1 yes 2 no

30. How often have you had sex?
    Never ----------
    Once-------
    Regularly-------
    Once in a while----------
    Other: Specify ----------
    ----

31. Whom have you had sex with?
    No one----------
    Some of my girlfriends/boyfriends----------
    All of my girlfriends/boyfriends----------
    Unknown person----------
    Other: Specify----------

32. Have you ever refused sex? 1 yes 2 no

33. Who have you ever-refused sex with?
    No one--------
    Some of my girlfriends/boyfriends----------
    All my boyfriends/girlfriends ----------
    Unknown person----------
    Other: Specify----------

34. If you have refused sex, what reason or reasons did you give?
(More than one response is acceptable)

    Not before we are married----
    To avoid pregnancy----------
    To avoid STI/HIV infection------

Section 4- Behaviour **(To be read as boyfriend if you are a girl or as girlfrien if you are a boy)**

26. Have you ever had a boyfriend/girlfriend? 1 yes 2 no

27. Do you currently have a boyfriend/girlfriend? 1 yes 2 no

28. How many boyfriends/girlfriends have you ever had?
None----------
Less than 2 --------
Less than 4 -------
Less than 6 --------
6 and above-------

29. Have you ever had sex? 1 yes 2 no

30. How often have you had sex?
Never ----------
Once-------
Regularly-------
Once in a while----------
Other: Specify ----------
----

31. Whom have you had sex with?
No one----------
Some of my girlfriends/boyfriends----------
All of my girlfriends/boyfriends----------
Unknown person----------
Other: Specify----------

32. Have you ever refused sex? 1 yes 2 no

33. Who have you ever-refused sex with?
No one--------
Some of my girlfriends/boyfriends----------
All my boyfriends/girlfriends ----------
Unknown person----------
Other: Specify----------

34. If you have refused sex, what reason or reasons did you give?
(More than one response is acceptable)

Not before we are married----
To avoid pregnancy----------
To avoid STI/HIV infection------

I am too young-------
I want to remain pure----------
The church forbids it-------
Other: specify_____

35. Did the person accept your reason or reasons for refusing?
1 yes 2 no

36. In the last 6 months have you been approached for sex? 1 yes 2 no

37. In the last 6 months have you had sex? 1 yes 2 no

38. If not what was your reason for not having sex?
(More than one response is acceptable)

No offers
Not before marriage-------
To avoid pregnancy----------
To avoid STI/HIV infection------
I am too young---------
I want to remain pure----------
The church forbids it-------
Others: specify _____

39. How many times have you had sex but you didn't want?
Not at all----
Less than 5----
Less than 10--------
10 and above--------

40. with whom?
Boy friend/girlfriend ----
Older man/woman-------
Just a friend --------
Unknown person ----------
Relative --------
Other: specify
_____

41. Do you use any method of contraceptive to avoid pregnancy?
1 yes 2 no

42. Which contraceptive method do you use?

(More than one response is acceptable)

None
Pill-------
Coil-------
Foam tablets---------
Withdrawal-----
Natural method (rhythm) -------
Condoms ------
Injection --------
Other: specify----------

43. Do you use any method of contraceptive during sex to avoid infection?
1 yes 2 no

44. Which method of contraceptive do you use during sex to avoid infection?
(More than one response is acceptable)

None
Pill--------
Coil----------
Foam tablets--------
Withdrawal---------
Natural method (rhythm) -------
Condoms ---------
Injection---------
Abstinence -------
Other: specify----------

Chapter 8
Chapter 9 **Section 5- Socio-economic status**

45. How much pocket money Pocket money per month do you get?
100/= and below--------
100/= - 300/=---------
300/= - 500/=-------
500/= -800/=---------
800/= - 1000/=--------
Above 1000/=------

46. Where do you get your pocket money from?
Boy friend(s)/girlfriend(s) ------
From parents ------
Other friends ----------
Relatives----------
Earned it myself-------

Other source: specify

_____

47. Who buys you the nice things you have?

Parents ----
Myself----------
Boy friend(s)/girlfriend(s) ---------
Other friends ---------
Relatives------
Other source: specify

_____

48. Do you have to be nice by having sex with the one who buys you nice things?

1 yes 2 no

Have you ever exchanged sex for a gift? 1 yes 2 no

49. Have you ever exchanged sex for anything else? 1 yes 2 no

50. What have you ever been given in exchange for sex?

_____

Chapter 10 **Section 9- Knowledge and information methods**

51. Do you think it is necessary to teach young people how their body works?

1 yes 2 no 3 don't know

52. Do you think young people should be taught on methods of avoiding unwanted pregnancies and STIs?

1 yes 2 no 3 don't know

53. Whom do you think should teach the young people on sexual matters?
(More than one response is acceptable)

Teachers--------
Parents---
Friends-------
Radio/TV (media) ----------
Health education programme--------
Relatives------
Books and Magazines-------
Other: specify----------

54. Which of the following has provided you with the most information on matters relating to sex?

Teachers--------
Parents----------
Friends----------
Radio/TV-------
Health education programme----------
Relatives--------
Books and Magazines-------
Other: specify----------

55. What information do you think you are lacking to help you avoid sex?

_____
_____

56. What information do you think you are lacking to help you delay sex?

_____
_____

57. To help me in matters relating to sex, I would like to know more about----

_____
_____

58. To help me in matters relating to sex, I would like-----

_____
_____

Annex V

Guidelines for focus group discussions.

Introduction:
My team and I are from the University of Nairobi, College of Health Sciences and we are conducting a study in Laikipia District. We are interviewing young people because we want you to tell us what you think about sexual health and how you cope with the difficult situations that you face. Every one of you should participate freely and whatever your views are, they are all welcome. If you do not mind I shall record the discussions on tape and on paper to ensue that all we say is captured. No one will be identified by name. We shall treat the entire discussion confidentially, and we request all of you to do the same. Welcome to the discussion.

Data to be collected

1. What are the most important sexual (health) issues affecting young men/women in this area?
2. How serious a problem is STI/HIV/pregnancy in this area?
3. What kind of things do people in this area do to avoid these problems?
4. What kind of problems do young people encounter when they are trying to avoid these problems?
5. How big a problem is unwanted pregnancy in this area?
6. Are condoms known and accepted in this area? When is it acceptable to use condoms? What are the problems with using condoms? For what reasons are condoms used in this area?
7. If at the beginning of a relationship, how long do people in this area consider reasonable to start having sex? Can he/she ask him her to use a condom? What are the consequences? Can she refuse to have sex with him? What are the consequences?
8. In this area what is the longest period on average a girl/boy can stay without having sex?
9. Do girls accept sex with every one that approaches them? What are the terms used for such people in this area?
10. In what ways do people avoid unwanted approaches? In what ways do people prolong the time before the start of a sexual relationship?
11. What are the terms used for young girls/boys who get pregnant? What kinds of things can a person do if he/she wants to have sex but doesn't want a pregnancy?
12. Would people in this area accept using condoms at the same time as other methods to prevent unwanted pregnancy and STIs/HIV? If no, why not?
13. Do you know of any programmes teaching youth about STI/HIV/sex e.g. NGOs, church, government? Are any of these taken seriously? Do you think they understand young people's needs?