FACTORS ASSOCIATED WITH EARLY SEXUAL DEBUT AMONG HIGH SCHOOL ADOLESCENTS BOYS AND GIRLS IN DAGORETTI DISTRICT

BY

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2015

DECLARATION

This research work and dissertation is my original work and to the best of my knowledge it contains no materials previously published or written by another person. It has not been submitted for award of a degree in any other university. References to work done by others have been clearly indicated.

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This book is dedicated to my loving husband, Elvis, for your immense and unwavering support during my postgraduate training.

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ACRONYMS/ABBREVIATIONS

AIDS-----Acquired Immune deficiency Syndromes

ARH & D----- Adolescent Reproductive Health and Development Policy

HIV----- Human immunodeficiency virus

ICDP------ International Conference on Population and Development

IUD-----Intrauterine Device

KAIS----- Kenya Aids Indicator Survey

KDHS----- Kenya Demographic Health Survey

KNH -----Kenyatta National Hospital

MDGs----- Millennium Development Goals

MOE----- Ministry of Education

STI----- Sexually Transmitted Infections

UNAIDS----- Joint United Nations Programme on HIV/AIDS

WHA-----World Health Assembly

WHO----- World Health Organization

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ABSTRACT

BACKGROUND

Early sexual debut puts adolescents at high risk of sexually transmitted infections, HIV/AIDS, unintended pregnancies, unsafe abortions, early marriages, gender based violence and cancer of the cervix. In Sub-Saharan Africa, the onset of sexual activity typically occurs by age 20 with the median age at first intercourse ranging from 16-19 years. Despite continued investments in adolescent sexual and reproductive health, challenges still exist in meeting the reproductive health needs of adolescents. Effective prevention interventions and policies to support postponement of sexual debut to the adult years will need to be evidence based.

OBJECTIVE

To identify factors associated with sexual debut at or before age 18 years among high school adolescent boys and girls aged 16-19 years in Dagoretti District.

METHODOLOGY

A Cross-Sectional survey was conducted amongst high schools students within Dagoretti District, Nairobi County. Participants were selected through a stratified multistage purposeful random selection of schools that ensured representation of public and private schools, day and boarding schools and gender. Participants were eligible if they were 16-19 years of age. A self administered structured questionnaire was administered to all eligible students to determine their sociodemographic, individual, family and environmental predictors of early sexual initiation.

RESULTS

A total 464 students, 220 (47%) male, and 244 (53%) female with a mean age of 17 years were recruited. Overall, 201(43%; 95% CI 39 – 48%) students reported ever having sex and 185(40%; 95% CI 35 – 44%) reported having had their first sexual encounter before the age of 18 years. Sixty percent of the respondents with early sexual debut were male.

Girls were more likely to report sexual debut with partners older than themselves compared to boys (91% vs. 40% P<0.001).Personal choice was found to be the main reason why adolescents engage in sex with need to feel rebellious cited by 13.9% of respondents.

Compared to when students reported that their main source of information on sex was their parents, the likelihood of early sexual debut increased three times when it was mass media (OR 2.94, 95% CI: 1.17 – 7.35), four times when it was friends (OR 3.92, 95% CI 1.77 – 8.64) and seven times when it was internet (OR 7.0, 95% CI 3.12 – 15.69).

Knowledge of family planning was reported by 385(91%) of the respondents with 21% reporting family planning use. Condom use was reported in 68% of respondents with hospitals being the main source of family planning.

CONCLUSION

Parent modeling and involvement and parent guided sexual education were found to delay sexual initiation among adolescents.

RECOMMENDATION

There is need for parents to be actively engaged in child upbringing and to adopt healthy recreation for adolescents during school holidays.

1 INTRODUCTION

Early sexual debut is defined as sexual activity before 18 years, the age of legal adulthood in Kenya.(1)(2)Data from the KDHS indicates that there has been an increase in median age at first intercourse among women aged 20–49 years from 16.7 years in 1998 to 17.8 years in 2003 and 18.2years in 2008. Among men aged 20-54 years the increase has not been as marked from 16.8 years in 1998 to17.1 in 2003 and 17.6 in 2008.(3)(4)(5).From these surveys, both women and men were found to frequently engage in sexual relations before marriage. Twelve percent of women aged 20-49 had sex before the age of 15 and about half had their first sex by their 18thbirthday. Men were found to have had an earlier sexual debut than women with 18.6%having had sex before the age of 15years. (6). In a study done on adolescent sexuality in Nyanza, Kenya in1999, it was noted that more than half the girls had sexual debut between 12-15years.(7) Data from the KDH Surveys between 1998 and 2009 indicate that women and men in rural areas start sexual activity earlier than their urban counterparts. Those with at least some secondary education begin sexual activity at least 2-3 years later than those with no formal education. These findings indicate that a lot still needs to be done to encourage adolescents to postpone coitarche. It is important to determine the factors associated with early initiation of sex because apart from health risks associated with early sexual debut, early sexual experiences often shape sexual values and social relationships that persist into adulthood.(8)(9)

Dagoretti District was chosen for this study since it extends from a distance of eight to twenty kilometers from Nairobi city centre and has a multicultural population with rural and urban settlements. The main economic activities in the district are industrial labour and small scale

trading. Therefore, secondary school going students from this district are representative of in-school adolescents with diverse socioeconomic backgrounds.

1.1 Significance of the study

The findings of this study will inform formulation of policies and interventions to equip adolescents with knowledge and skills to make informed choices. Identification of the factors associated with early sexual debut will inform existing programmes on behavior change communication by health workers, gender empowerment and sexual health education in schools.

2 LITERATURE REVIEW

The World Health Organization (WHO) defines adolescence as the period from 10-19 years of age. It is a period characterized by physical, psychological and social changes. In this stage of life, many key social-economic, biological and demographic events occur. The profound changes that occur in adolescence make it largely a stage of self exploration. These changes put these young adults at risk of untoward practices such as high risk sexual behaviour leading to early sexual debut, multiple partners, STI/HIV, early pregnancies, abortion, school drop outs, peer pressure and substance abuse.(10)(11)

According to the KDHS 2008, over three fifths of the Kenyan population is less than 25 years old. Consequently, Kenya faces a formidable challenge of providing its youth a safe, healthy and economically productive future. Adolescents make up 23.8% of the Kenyan population with majority of adolescents living in the rural areas. The KDHS 2008, data shows that young men are twice as likely to engage in sexual intercourse before age 15 as young women (22% vs11%).By age of 18, about approximately half of women (47%) and slightly more than half of men (58%) have had sexual intercourse. Among young adults aged 15 to 24 years, 66% of women and 59% of men had ever had sex. (3)In a study done in Kenya, the mean age at first coitus was 13.7 for boys and 14.9 for girls. Forty two percent of the girls and 74.8% of the boys had more than one sexual partner.(12)

Promoting healthy relationships and safe sexual practices during adolescence and protecting young people from health risks is critical into their future and national development. In the 64thWorld health Assembly (WHA) of 2011, a resolution on youth and health risks was adopted

which calls for member states to focus their efforts on youth; to consider this important population group in all the policies within and beyond the health sector.(13) In line with the International Conference on Population and Development (ICDP) 1994, Kenya has put in an adolescent and reproductive health development policy. The policy addresses adolescent sexual health and reproductive rights, harmful practices including early marriage and female genital cutting and gender based violence, drug and substance abuse social economic factors and the special needs of adolescent and young people with disabilities.(9)

The government of Kenya through the ministries of health and devolution and planning has put up policies to address this need for adolescent and youth friendly services.(14)(15)In 2003, the Government of Kenya through the Ministry of Planning and Ministry of Health came up with an Adolescent Reproductive Health and Development policy (ARH&D) whose aim was to safeguard the rights of the adolescent by bringing adolescent health issues into the mainstream of health and development and to contribute to the improvement of the quality of life and well being of Kenya's adolescent and youth. (9) The government also established the HIV and AIDS prevention and control act under the Ministry of Education. which integrated learning of causes, modes of transmission, prevention of HIV and AIDS and other sexually transmitted diseases in both formal and informal learning systems.(16)

The family unit is the most proximal and fundamental social system affecting the development of the adolescent. It is therefore seen as a potentially prominent influence of adolescent sexual behaviour. The importance of positive affect, between parent and adolescent child has been implicated in the delay of sexual debut.(17)(18)Because of the gradual change from extended families to nuclear families, education, role models, and any established activities that initiated youth into adulthood have virtually disappeared, adolescents are therefore left uneducated and

unprepared.(19) Low social economic status among adolescents has been linked to reduced access to resources and social support networks which may eventually lead to physical and psychological vulnerability and increased dependence. This exposes adolescents to high risk behaviour including early age of sexual debut, transactional sex and increased number of partnerships(14)(15).

According to the millennium development goals (MDGs), MDG5 seeks to improve maternal health. This encompasses the need to achieve universal access to reproductive health for which one of the indicators is the pregnancy rate among 15-19 year old girls. (20)Adolescent births approximate 11% of all births worldwide with 16 million girls aged 15-19 years giving birth every year. The risk of dying from pregnancy related causes is much higher for adolescents than for older women with the adolescents being at greater risk.(11)Because of their early entry into child bearing, the mothers are denied the opportunity to pursue basic and advanced academic goals and this eventually affects their welfare, social status and further limits access to many reproductive health programmes.(21)The proportion of teenagers who have began child bearing increases from 2% at age 15 to 36% at age 19.(3) According to the KDH surveys of 2003 and 2008, there is a slight decline in percentage of teenagers who have began childbearing and also percentage of those pregnant with their first child. (3)(4)This shows that a lot still needs to be done to reduce these percentages further and improve the health of adolescents.(6)(22)

MDG6 seeks to combat HIV/AIDS, malaria and other diseases of which one of its indicators is a 25% reduction in HIV/ AIDS among young people. It also measures the provision of 15-19 year olds with comprehensive and correct knowledge of HIV/AIDS. (23)Early sexual intercourse puts

adolescents at increased risk of HIV/AIDS.(8) In 2009 young people aged 15-24 years accounted for 40% of all new HIV infections among adults. Currently only 36% of young men and 24%of young women have the comprehensive and correct knowledge they need to protect themselves from acquiring HIV. (3) Where social, cultural and economic conditions increase the vulnerability of young people to HIV infection, an effective HIV prevention strategy should aim at addressing these factors. Sub Saharan Africa has reduced AIDS related deaths by 1/3 in the last 6years though young people in Kenya between 15-35 years represent 38%of the national population and make up >6%of new infections.(24)(25) HIV prevalence among adolescents makes up 2.3% of the overall HIV prevalence with the men making up 1% and the women 3.5%.The overall HIV prevalence among the youth aged 15-24 years was 3.8%.(25)According to KAIS, adolescents who initiate sex at an early age are more likely to be at increased risk of HIV and other sexually transmitted infections.(25)

Harmful consumption of alcohol among adolescents reduces self control and increases risky behaviour.(11)In 2012, sexual activity among adolescent girls in Kisumu was at 22% with peer influence and drug abuse being the main predictors of sexual activities.(26) Training in life skills and reducing access to alcohol and other substances can help in preventing violence. Preventing risky behaviour and promoting healthy choices among adolescents can therefore yield positive health outcomes, not just during adolescence but also in adulthood.(19) Healthy adolescents have a better chance of becoming healthy, responsible and productive adults.

The unmet need for contraceptives amongst unmarried adolescents in sub-Saharan Africa is as high as 40%.Contraceptive prevalence peaks among married women in the 30-34 age group and

is lowest among women aged 15-19 years.(4) Contraceptive use is found to increase with level of education while consistent condom use reduces the risk of sexual transmission of HIV among sexually active young adults.(3) Young adults who use condoms at first sex are more likely to sustain use later in life. In the absence of contraception, the probability of pregnancy is related to the frequency of intercourse. A descriptive cross sectional study done in Kisumu showed that despite high level of knowledge (99.2%) of contraceptive methods and a positive attitude towards contraception among adolescents, the level of contraceptive use is relatively low (57.5%).(27) Ayo A Ajayi et al conducted a survey in 1985 on knowledge perceptions and practices of adolescents on sexuality and fertility. (28) The study showed that although majority of the adolescents had received information on reproductive health, the quality of information was thought to be generally low. An understanding of the knowledge and rational or irrational use of contraceptives among adolescents will help us strengthen adolescent programmes on contraceptives.

Improving adolescent health encompasses improving these young people's daily life in families, peers, schools and also in their communities. This also includes addressing risk and protective factors in a social environment.(29).This study sought to identify how the atmosphere and cohesiveness of the family and peers influences the onset of sexual activity. This study also identified the contributions from the education, media and other sectors and the need to improve on already laid out adolescent programmes.

2.1 Study justification

According to the Kenya Demographic and Health Survey from 2008-2009, about 12 percent of female and 20 percent of male respondents aged 15 to 49 said they had had sexual intercourse by age 15. Nearly half of females and more than half of males had sex by age 18 with approximately 28% of adolescent women aged between15-19 years being sexually active. Therefore, there is need to identify opportunities for intervention before adolescents engage in and bear consequences of high risk sexual behavior.

Currently, the prevalence of HIV among adolescents aged 15-24 years is 3.8% for the women and 2.1% for the men.(25) Adolescents aged 15–19 years account for 25% of all unsafe abortions in Africa.(30)About 16%of adolescents aged 14-19 years of age in Kenya have suffered abortion associated complications.(31)It is therefore important to understand the various, psychosocial and behavioural factors associated with sexual activity among young adolescents in various urban peri urban and rural areas to inform and design appropriate sexual and reproductive health programs and interventions.

According to KDHS 2008-2009, only 14.1% of adolescents had ever used any method of contraception despite 94.6% of women having knowledge of their use. An understanding of the knowledge and rational or irrational use of contraceptives among adolescents will help us strengthen adolescent programmes on contraceptives. Given the high multicultural background of Dagoretti district, this study is presumed to represent a broad picture on the predictors of sexual debut in adolescents in the country and hence interventions may be generalized.

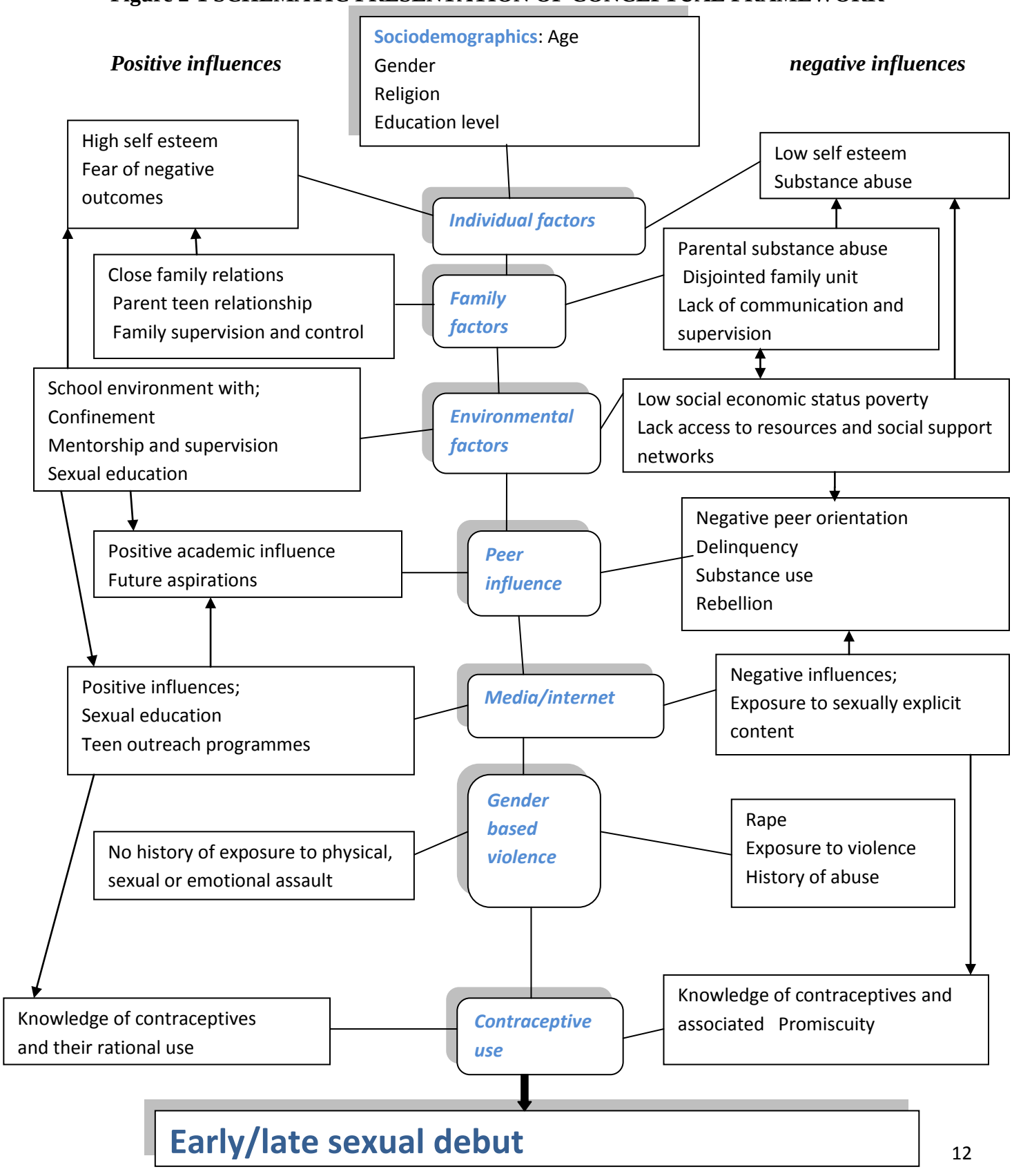
2.2 Conceptual framework

NARRATIVE

The study sought to find out what factors contribute to early sexual debut amongst high school adolescent boys and girls aged 16-19 years in Dagoretti District. It focused on the correlations between teenage sexual behavior and the social, psychosocial and behavioral factors. The study sought to examine how engaging in early sexual activity is associated with self, familial and extra-familial systems which include individual, family, peers and communities. Others include religion, academics self-perception, parenting styles and how cohesion and close family relations influence adolescent sexual behavior. Troubled youth may initiate sexual activity early in order to achieve intimacy and support they lack at home.(21)

The schematic diagram below illustrates the positive and negative influences in adolescents' sociodemographic, family, environment, contraceptives, peers, gender based violence, media and internet that may lead to early or late sexual debut.(Figure 2-1)

Figure 2-1 SCHEMATIC PRESENTATION OF CONCEPTUAL FRAMEWORK



2.3 Research question

What are the factors associated with early sexual debut amongst high school going adolescent boys and girls aged 16-19years in Dagoretti District?

2.4 Objectives of the study

2.4.1 Broad Objective

To describe the factors associated with initiation of sexual activity among high school adolescent boys and girls aged 16-19 years in Dagoretti District.

2.4.2 Specific objectives

1. To determine the proportion of adolescents initiating sexual activity before their 18th birthday (early) in Dagoretti District.
2. To describe the socio-demographic, socio-cultural, and structural factors that are associated with initiation of early sexual activity among high school adolescents in Dagoretti District.
3. To describe family planning Knowledge and practices and their association with sexual activity amongst high school adolescent boys and girls in Dagoretti District.

3 METHODOLOGY

3.1 Research design

This was a descriptive cross-sectional study amongst secondary school going boys and girls in Dagoretti district. The participants were enrolled from selected public and private schools in the region.

3.2 Study area

The study was conducted in Dagoretti District Nairobi County. Dagoretti district spans over an area of 39 square kilometers and it has a total population of 329,577 with a density of 8,533.89 per square kilometer. There are 12 public secondary schools and 32 private schools (June 2013).

3.3 Study population

The study population comprised of secondary school boys and girls in both day and boarding schools between the ages of 16-19years. Early sexual debut is defined as sexual activity before age 18—the age of legal adulthood in Kenya.(1)(2)This cut-off also takes into account the median age at first sex which is 18 years based on KDHS 2008-2009.(3)

3.4 Study instrument

The study instrument constituted a self administered structured questionnaire which was both categorical and open ended. It was administered to the eligible students. The questionnaire had the following sections:

1. Sociodemographics
2. Factors that may be associated with early sexual debut;
    - individual factors; self esteem
    - Family factors; parent teen relationship
    - Environmental factors; school, supervision and mentorship
    - Peer influence; negative peer orientation
    - Gender based violence; physical or sexual assault
    - Media involvement; sexual education, exposure to explicit content
    - Knowledge and attitudes to contraceptive use

3.5 Sample size determination

The sample size was determined by using the statistical formula of Fisher et al 2003 method multiplied by the design effect.(32)(33)

According to 2008-2009 Kenya demographic health survey, 47.8% of women aged between 20-49years had first sexual intercourse before the age of eighteen years whereas 55.4% of men of the same age group had sexual activity before 18 years. Based on these statistics, an average exposure of early sexual intercourse of both girls and boys was assumed to be 50% for purposes of sample size calculation.

The following formula was used;

$$\mathbf{n} = \frac{\mathbf{z^2} \times \mathbf{p(1-p)}}{\mathbf{d^2}}$$

n=required sample size

z= confidence level at 95% (standard value of 1.96)

p =proposed percentage students with sexual debut (50%).

d = margin of error at 5% (standard value of 0.05).

$$\mathbf{n} = \frac{1.96^2 \times 0.5\,(1-0.5)}{0.05^2} = \mathbf{384}$$

A design effect of 1.2 was used as there is no much disparity in the strata.(32)(33)

n=384x1.2=461

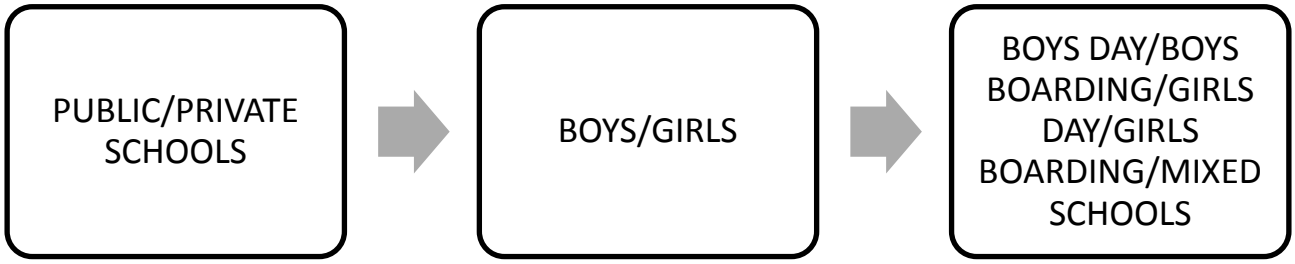
Sample size was taken as **484** after adjusting for 5% non-response (242 students for each gender were recruited).

3.6 Recruitment and consenting procedure

Dagoretti District has 12 public schools and 32 private schools. For the purpose of this study we recruited students of age 16 and above (Internationally recognized age for informed consent)(34)which is estimated to be students in the form three and four and hence the older half of the school became our population of interest.

Stratified multistage purposeful selection of schools was done to ensure equal representation of public, private, day, boarding schools and gender.

Figure 3-1: Stratified Sampling process and students recruited from each school by gender



Probability-proportional-to-size sampling ('PPS') was then used to determine number of students selected from each school. The number of participants selected from each school was obtained by dividing the student population for each gender in each school by the total number of students in that gender in the selected schools multiplied by the estimated sample size of 242(students in one gender). This established the number of students required from each school. A random sampling was conducted to select the required number of students from each school. Randomly

generated numbers from a random generator table was used to determine students to participate in the study. A total of 492 students were recruited for the study. Of these, 28students (5.7%) were excluded as they did not meet inclusion criteria. The sample size was concluded at 464.

3.6.1 Inclusion criteria

Boys and girls in secondary school aged between 16-19 years who are present on the day of the study.

Students willing to participate

Willingness to provide assent or consent

3.6.2 Exclusion criteria

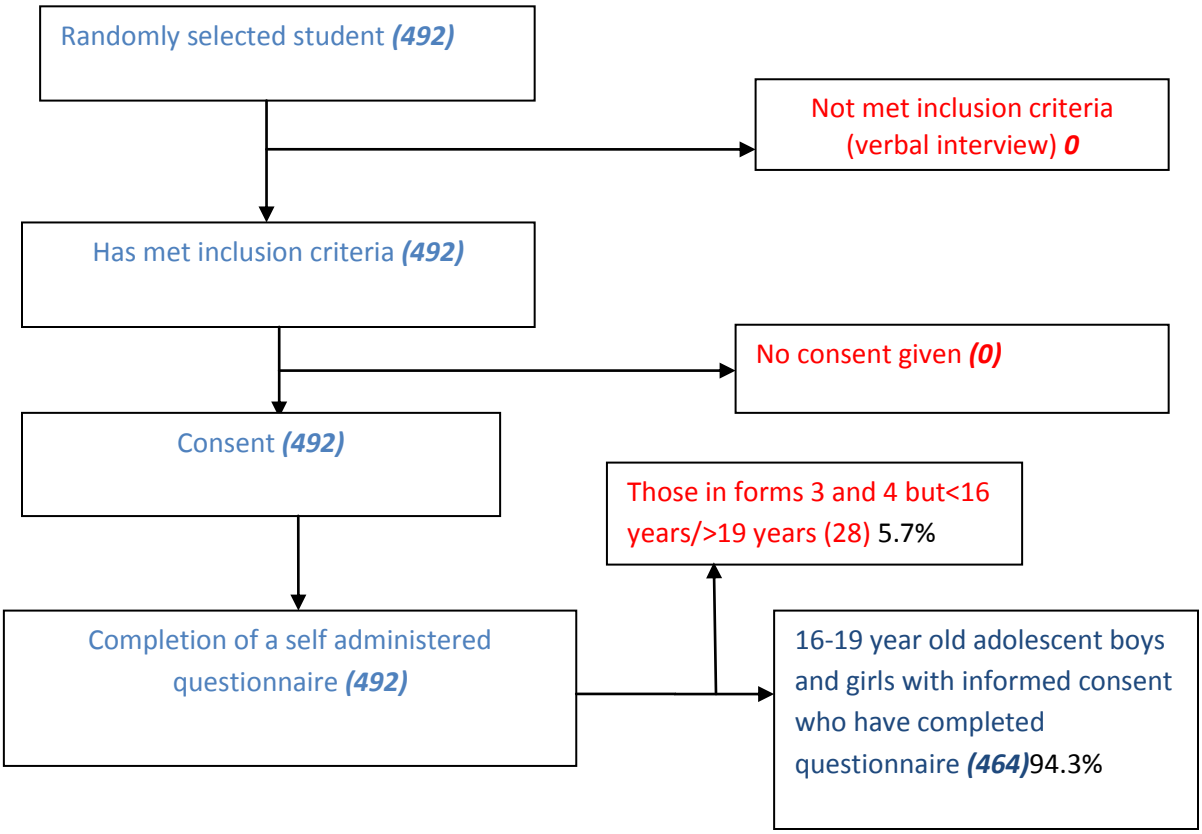
Students who had not been enrolled in the school in previous term

Students not willing to participate in the study

3.7 Data collection

Data was collected using a self administered questionnaire. Data collection procedure was as follows,

Figure 3-2: Data collection process



The principal investigator was responsible for enrolment of the schools into the study assisted by research assistants. The research assistants were qualified clinical officers and teachers from the area. A days training was conducted on the supervision of data collection. They were also involved in the pretesting of the questionnaire.

The students were then informed about the study, its objectives, risks and benefits. Those willing to participate were requested to provide written consent. For the students aged less than 18 years, the consent was provided by the school principal or class teacher. The questionnaire was then

administered and a code used for each of them. Double participant recruitment was prevented by carrying out data collection in one class at a time and by also enquiring from the student if they have completed the interview before.

The questionnaire was then examined for clarity, ambiguity, and analyzability and appropriate adjustments made.

3.8 Quality assurance procedures

Pretesting of the pre-designed questionnaire guide was carried out by the principal investigator at Kenyatta National Hospital Adolescent Clinic before actual data collection. The questionnaires were then analyzed to inform the changes and adjustments that needed to be addressed before a final draft was made for administration to the study participants. Each school was given a unique code to it to avoid mixing of data collected from different schools. To avoid double recruitment, interviewing of the randomized participants was done on a class to class basis on a specified day of the study .This also helped overcome information contamination. Questionnaires were then serialized to avoid double entry. The research assistants had been trained to quickly identify and correct such mishaps.

3.9 Data management/analysis

All data obtained from the questionnaire was cleaned, verified and entered into a computer using Microsoft Access database. The verified data was stored on a USB flash disk and backed-up on CD-RW that was password protected.

The data was analyzed using Social SPSS version 17.0. Descriptive statistics (mean, mode, frequencies) were reported to describe the variables while inferential statistics to establish associations between early sexual exposure and the explanatory factors using a chi-square and

mantel-Hansel analysis while logistic regression were used to determine the predictors of early sexual exposure.

3.10 Limitations and strengths

3.10.1 Limitations

- The topic under discussion is a sensitive one especially among adolescents. Underreporting or over reporting of sexual activity was expected. This was avoided by a brief talk before data collection on the need to give truthful answers. The participants were also assured that the information they gave was not to be linked to them and was to be handled confidentially.
- The adolescents sampled could have declined to participate in the study even after consenting. This was overcome by recruitment of new participants into the study who were randomly selected.
- Limited access to adolescents in private schools in Dagoretti District. This was avoided by recruitment of private schools willing to participate.

3.10.2 Strengths

- The study looked into locally relevant data from diverse settings of rural, urban and also the transition between rural and urban.
- Use of both male and female adolescent correspondents in the study.
- Diversity in type of secondary school learning modules of day, boarding and mixed schools.

  These strengths gave insight to the socio economic status and socio behavioural conduct of the study participants.

3.11 Ethical clearance

Informed consent was sought from participants and confidentiality maintained. At the end of data collection, a sex education seminar was given at the school. Ethical clearance was obtained from University of Nairobi/KNH Ethics Review Committee, Ethical committee of the National Council for Science and Technology, and Ministry of Education and through the various schools' principals.

4 RESULTS

This was a descriptive cross sectional study to determine factors associated with initiation of sexual activity among adolescent boys and girls.

A total 492 students were recruited. Of these, 28 students were excluded from the study because they were <16 years or >19years old. Consequently, the eligible students for the study were 464 students from 9 schools with 29-91 students enrolled per school depending on school size. Respondents from day schools were 164 (35%) while 219(47%) were from mixed schools. Table 4.1 describes distribution of students by school characteristics.

Table 4-1 School characteristics from which the respondents came from

School characteristic	n(%)
School Name	
Dagoreti	48 (10.3)
Ruthimitu	65 (14.0)
Upperhill	62 (13.4)
Mutuini	22 (4.7)
Moi	91 (19.6)
Nembu	42 (9.1)
Mutego	77 (16.5)
Forest view	28 (6.1)
Kabiro	29 (6.3)
Type of secondary school	
Day mixed	142 (30.6)
Day boys	22 (4.7)
Boarding mixed	77 (16.6)
Boarding boys	62 (13.4)
Boarding girls	161 (34.7)
Class currently in	
Form 3	270 (58.2)
Form 4	194 (41.8)

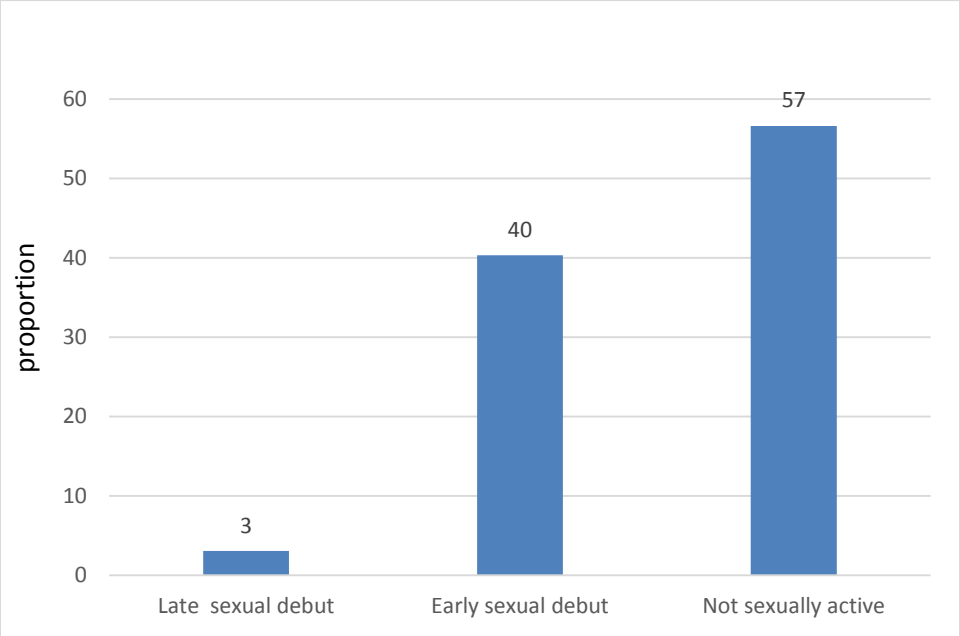
The respondents were relatively balanced by gender with 47% being male. Majority 404 (87%) of the respondents were Christians of whom 157 (34%) were Catholics and 247(53%) were Protestants. Most of the respondents' parents had either college or university education with only 11(2%) reporting that their parents had no schooling. A detailed description of socio-demographic characteristics is provided in table 4.2.

Table 4-2 Socio-demographic characteristics of the respondents

Characteristic	N (%)
Gender	
Male	220 (47.4)
Female	244 (52.6)
Age	
Mean (SD;[range])	17.2 (1.3; [16 -25])
Religious background	
Catholic	157 (33.8)
Protestant	247 (53.2)
Muslim	17 (3.7)
Hindu	1 (0.2)
None	42 (9.1)
Homestead lived in	
Single parent	162 (34.9)
Both parents	266 (57.3)
Disjointed	23 (5.0)
Adopted	12 (2.6)
Others	1 (0.2)
Person lived with	
Father and mother	248 (53.4)
Father only	35 (7.5)
Mother only	141 (30.4)
Others	40 (8.6)
Parents level of education	
Did not go to school	11 (2.4)
Primary	35 (7.5)
Secondary	119 (25.6)
College/university	299 (64.4)

Of the respondents interviewed, 201(43%; 95% CI 39 – 48%) reported ever having sex. One hundred and eight five (40%; 95% CI 35 – 44%) reported having had their first sex encounter early (before the age of 18 years), 15(3%; 95% CI 2 – 5%) had initiated sexual activity later (between 18 and 19 years) while 264 (57%; 95% CI 52 – 62%) were not sexually active (see figure 4.1)

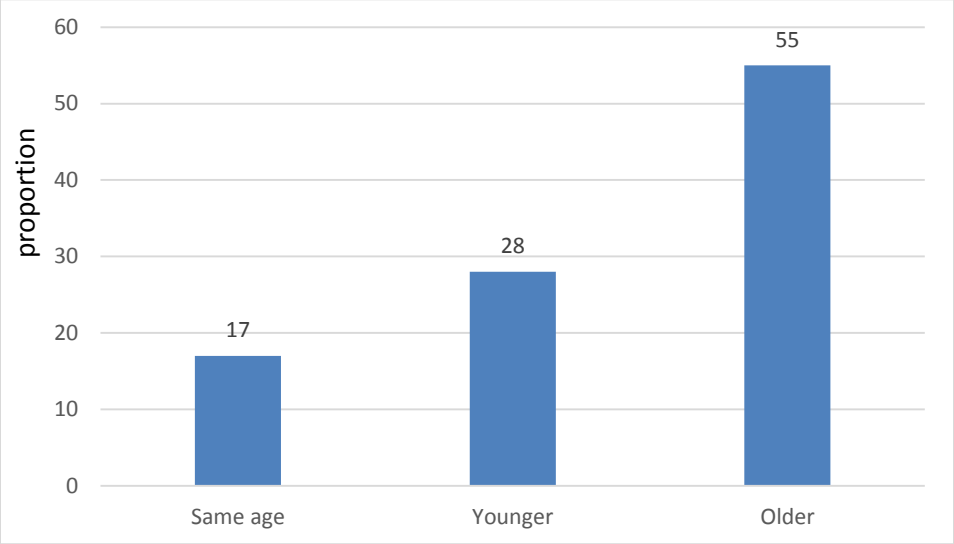
Figure 4-1 Timing of sex debut



The mean (SD) age at first sex encounter was 15(3) years while the mean (SD) age of the sex partner was 17 (5) years. For those who had more than one sexual encounters (135) the median (IQR) number of partners in the last one year was 2 (1 – 4) while the median number of lifetime partners was 4 (2- 6).

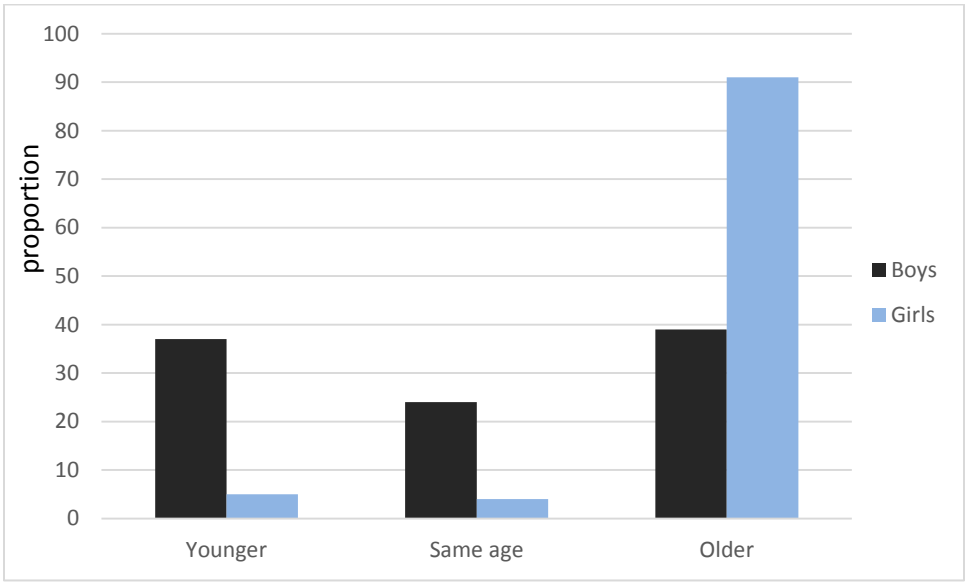
Respondents who reported a sexual encounter with a person older than them were 108 (55%) while for 56 (28%) it was individuals younger than them as illustrated in figure 4.2.

Figure 4-2 Age difference of the sexual partner



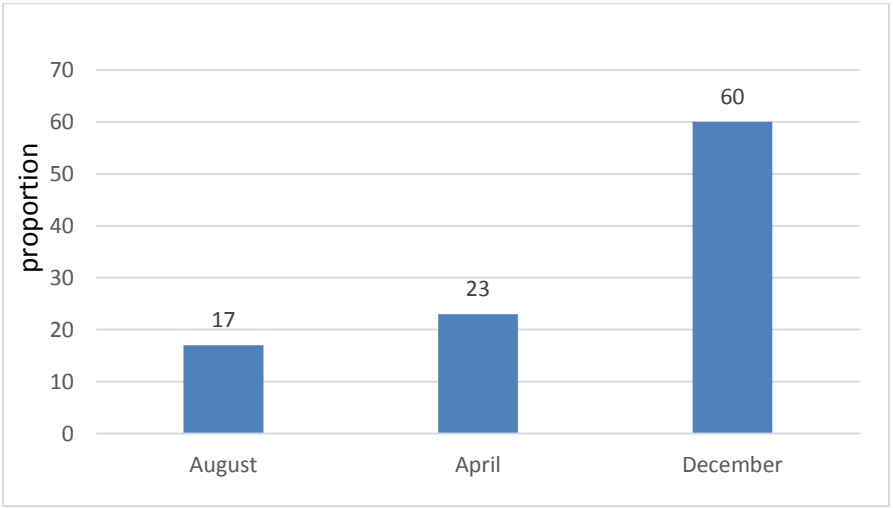
When the age difference of sexual partner was stratified by gender of the respondent, 91% (52/57) girls had sex with people older than them while for boys the proportions with older partners was 40% (56/140). Reporting a partner of the same age was the least commonly reported age relationship among both boys and girls at 4% and 24% respectively. The association between gender and age difference of partner was significant (P<0.001). Figure 4.3 illustrates age difference of sexual partner by gender.

Figure 4-3 Age difference of sexual partner and the respondent by gender



Most respondents 182 (91%) reported that the sexual debut encounter happened during school recess. December holiday was reported by most of the respondents 109 (54%) as the time when they had their first sex encounter (see figure 4.4).

Figure 4-4 School holiday when sexual encounter happened



Majority 192 (96%) of the respondents had heterosexual relationships, however, 7 (3.3%) respondents reported homosexual relationships. Most of the sexual encounters were with a friend 112 (56%), neighbor 43 (21%), teacher 13 (7%) or stranger 9 (6%). Table 4.3 describes characteristics of sexual encounter in detail.

Table 4-3 Characteristics of sexual partner and nature of sexual encounter

Gender of sexual partner	
Same	9 (4.5)
Opposite	183 (91.0)
bisexual	9 (4.5)
Relation to partner	
Classmate	19 (9.5)
Relative	5 (2.5)
Neighbor	43 (21.4)
Teacher	13 (6.5)
Friend	112 (55.7)
Stranger	9 (4.5)
Type of first sexual encounter	
vaginal	180 (89.6)
Oral	15 (7.5)
Anal	6 (3.0)

The reason for the first sexual encounter was reported as personal choice by 86 (43%), need to feel rebellious by 28 (14%), Peer influence by 27 (13%) and relationship promise by 13 (7%) of the respondents. However, nine reported that the sex was forced and four said it was rape.

During the first sexual encounter 115 (57%) reported contraceptive use. After the first encounter 69 (29%) said they regretted while four reported they became pregnant and four acquired a sexually transmitted disease (see table 4.4).

Table 4-4 Reason for first sexual encounter, use of contraception and outcome of sexual encounter

Situations related to first sexual encounter		n(%)
Why engage in sex		
	By choice	86 (42.8)
	Need to feel rebellious	28 (13.9)
	Forced	9 (4.5)
	Peer influence	27 (13.4)
	Influence of drugs	8 (4.0)
	Relationship promise	13 (6.5)
	Money promise	1 (0.5)
	Knowledge of FP	2 (1.0)
	Rape	4 (2.0)
	Media influence	11 (5.5)
	After sex education class	5 (2.5)
	Others	7 (3.5)
Used contraceptive		
	No	86 (42.8)
	Yes	115 (57.2)
Regret first sex encounter		
	No	142 (70.6)
	Yes	59 (29.4)
1st encounter lead to pregnancy		
	No	197 (98.0)
	Yes	4 (2.0)
1st encounter lead to STD		
	No	197 (98.0)
	Yes	4 (2.0)

Of the 201 respondents who reported ever having sex, 65 (32%) of the respondents reported that this was the last sexual encounter they had.

Students in form three were more likely to report early sexual debut than those in form four (43.7% vs. 34.5% P=0.047). With day mixed secondary school as the reference group, day boy schools had a significantly increased risk of early sexual debut (OR 2.74;95% CI 1.01 – 7.42; p value=0.047) while girl boarding schools had a significantly decreased risk of early sexual debut

(OR 0.21; 95% CI 0.12 – 0.35; p value<0.001). Associations of age of sex debut and school characteristics are presented in detail in table 4.5.

Table 4-5 Association of age of sex debut and School characteristics

	Early sexual debut n(%);N=185	**Late sexual debut or not sexually active n(%); N=279**	**odds ratio**	**95% CI**		**P value**
Type of secondary school						
Day mixed	71 (50.0)	71(50.0)	1.00			
Day boys	16 (72.7)	6 (27.2)	2.74	1.01	7.42	0.047
Boarding mixed	32 (41.6)	45 (58.4)	0.73	0.42	1.28	0.276
Boarding boys	39 (62.9)	23 (37.1)	1.74	0.95	3.22	0.075
Boarding girls	27 (16.8)	134 (83.2)	0.21	0.12	0.35	<0.001
Class currently in						
Form 3	118 (43.7)	152 (56.3)	1.00			
Form 4	67 (34.5)	127 (65.5)	0.68	0.46	1.00	0.047

Of the proportion of respondents who had early sexual debut, 133 (71.8%) were male. With males as the reference group, females were significantly less likely by 82% to have early sexual debut (OR 0.18 95% CI 0.12 -0.27). Respondents living with the father only were 2 times more likely to have early sexual debut compared to respondents living both parents (OR 2.09; 95% 1.02 – 4.29).Table 4.6 describes the association of socio-demographic characteristics and sexual debut in detail.

Table 4-6 Association of age of sex debut and socio-demographic factors

	Early sexual debut n(%);N=185	Late sexual debut or not sexually active n(%); N=279	odds ratio	95% CI		P value
Gender						
Male	133 (60.5)	87 (39.5)	1.00			
Female	52 (21.3)	192 (78.7)	0.18	0.12	0.27	<0.001
Religious background						
Catholic	67 (42.7)	90 (57.3)	1.00			
Protestant	78 (31.6)	169 (68.4)	0.59	0.39	0.89	0.012
Muslim	10 (58.8)	7 (41.2)	1.81	0.66	5.01	0.252
Hindu	0 (0.0)	1 (100.0)				
None	30 (71.4)	12 (28.6)	3.17	1.51	6.66	0.002
Homestead lived in						
Single parent	65 (40.1)	97 (59.9)	1.00			
Both parents	107 (40.2)	159 (59.8)	0.97	0.65	1.46	0.891
Disjointed	7 (30.4)	16 (69.6)	0.63	0.25	1.63	0.341
Adopted	6 (50.0)	6 (50.0)	1.44	0.45	4.68	0.54
Others	0 (0.0)	1 (100.0)	-----	-----	----	-----
Person living with						
Father and mother	96 (38.7)	152 (61.3)	1.00			
Father	20 (57.1)	15 (42.9)	2.09	1.02	4.29	0.044
Mother	60 (42.6)	81 (57.4)	1.16	0.76	1.78	0.485
Others	9 (22.5)	31 (77.5)	0.46	0.21	1.00	0.05
Parents level of education						
Didn't go to school	8 (72.7)	3 (27.3)	1.00			
Primary	14 (40.0)	21 (60.0)	0.25	0.06	1.11	0.068
Secondary	53 (44.5)	66 (55.5)	0.30	0.08	1.19	0.087
College/university	110 (36.8)	189 (63.2)	0.20	0.05	0.79	0.021

Of the events and situations around the first sexual encounter none of these factors were significantly associated with early sexual debut .The numbers were small and we did not see any association. Most of the first sexual encounters were during school recess with 92% among the early sexual debut group compared to 85% in the not early sexual debut group. The mean (SD) age of partner among those involved in early sexual debut group was slightly lower 17 (5) compared to 19 (2) years although this difference was not significant.

None of the consequences of first sex encounter were significantly associated with early sex debut. There was a relatively high rate of contraceptive use with 57% and 73% using contraceptives among students in the early and not early sexual debut groups respectively. The proportion of students using condoms always was lower among the early group at 33% compared to 50% in the not early sexual debut group. Students rarely engaged in sex under the influence drugs with only 22% and 13% reporting use in the early and late sexual debut groups respectively

Of those who had sex education majority 44% were in the early group and 50% in the not early group had the discussion with their mother. All factors related to knowledge about sex were significantly associated with early sexual debut. Respondents who felt they knew enough sex were 2.5 times likely to be involved in early sexual debut compared to those who said no. Conversely, those who felt that there is need for young person to delay sex had significantly decreased risk of early sexual debut by 0.15 times (95% CI 0.09 - 0.23). With respondents who had never had a discussion on sex with their parent as the reference group, respondents who had a discussion had a significantly decreased risk or early sexual debut by 0.50 times (95% CI 0.34 – 0.743). Table 4.7 describes in detail the association of age of sex debut and knowledge about sex.

Table 4-7 Association of age of sex debut and knowledge about sex

	Early n(%); N=185	Not early n(%); N=279	odds ratio	95% CI		P value
Think know enough on sex						
No	83 (31.3)	182 (68.7)	1.00			
Yes	102 (51.3)	97 (48.7)	2.49	1.69	3.66	<0.001
Need for young person to delay sex						
No	98 (70.5)	41 (29.5)	1.00			
Yes	87 (26.8)	238 (73.2)	0.15	0.09	0.23	<0.001
Statement that best describes you						
Attracted to opposite sex	151 (42.7)	203 (57.3)	1.00			
Attracted to individuals of same sex	3 (75.0)	1 (25.0)	3.95	0.41	38.38	0.236
Attracted to both boys and girls	16 (32.7)	33 (67.3)	0.64	0.34	1.20	0.166
Not sure	9 (30.0)	21 (70.0)	0.56	0.25	1.27	0.166
None of the above	6 (22.2)	21 (77.8)	0.38	0.15	0.96	0.04
Ever had discussion on sex with parent						
No	101 (49.3)	104 (50.7)	1.00			
Yes	84 (32.4)	175 (67.6)	0.50	0.34	0.73	<0.001
If had sex education who had sex discussion with*						
Father	8 (50.0)	8 (50.0)	1.00			
Mother	36 (26.3)	101 (73.7)	0.36	0.12	1.02	0.054
Both	22 (51.2)	21 (48.8)	1.05	0.33	3.30	0.937
Older sibling	12 (27.9)	31 (72.1)	0.39	0.12	1.27	0.116
Guardian	6 (60.0)	4 (40.0)	1.50	0.30	7.43	0.619
Others	0 (0.0)	10 (100.0)	---	-----	------	------
Sex discussion helpful*						
No	16 (61.5)	10 (38.5)	1.00			
Yes	68 (29.2)	165 (70.8)	0.22	0.09	0.54	0.001

*Denominator is those who responded 'yes' to ever having a discussion on sex

Of the factors related to source of information on sex, only the source of information and the suggestion of whether sex education should be introduced in primary schools were significantly associated with early sexual debut. Students whose source of information was friends, internet and mass media had significantly increased odds of early sexual debut by 3.92(95% CI 1.77 – 8.64), 7.0 (95% CI 3.12 – 15.69) and 2.94 (1.17 – 7.35) times respectively when compared to parent as the source of information. Respondents who had never had a class on sex education had significantly increased odds of early sexual debut by 1.38 times (95% CI 0.78 – 2.46) when compared to those had ever had a class on sex education, however this association was not significant (see table 4.8).

Table 4-8 Association of age of debut and knowledge and source of sex education information

	Early n(%); N=185	Not early n(%); N=279	odds ratio	95% CI		P value
Source of information on sex						
Parent	9 (16.1)	47 (83.9)	1.00			
Guardian	1 (25.0)	3 (75.0)	1.74	0.16	18.67	0.647
Older sibling	3 (18.8)	13 (81.3)	1.21	0.28	5.11	0.800
Other relatives	3 (50.0)	3 (50.0)	5.22	0.91	30.11	0.064
Friends	65 (43.0)	86 (57.0)	3.92	1.77	8.64	0.001
Teachers	21 (30.9)	47 (69.1)	2.33	0.97	5.62	0.059
Internet	63 (57.3)	47 (42.7)	7.00	3.12	15.69	<0.001
Mass media	18 (36.0)	32 (64.0)	2.94	1.17	7.35	0.021
Others	2 (66.7)	1 (33.3)	10.44	0.85	127.77	0.066
Ever had a class on sex education						
Yes	154 (39.2)	239 (60.8)	1.00			
No	25 (47.2)	28 (52.8)	1.38	0.78	2.46	0.273
Don't know	6 (33.3)	12 (66.7)	0.77	0.28	2.10	0.614
Should sex education be introduced in primary school						
No	8 (23.5)	26 (76.5)	1.00			
Yes	177 (41.2)	253 (58.8)	2.25	1.00	5.09	0.051
How easy to get money to seek care						
Very easy	40 (46.0)	47 (54.0)	1.00			
Available	93 (37.5)	155 (62.5)	0.71	0.43	1.16	0.165
Would have to borrow	52 (40.3)	77 (59.7)	0.72	0.41	1.28	0.26
Do you have a socio-crowd (peer influence) on sex						
No	27 (31.0)	60 (69.0)	1.00			
Yes	158 (41.9)	219 (58.1)	1.59	0.96	2.63	0.071
Pressure to do something because of friends						
No	79 (43.6)	102 (56.4)	1.00			
Yes	106 (37.5)	177 (62.5)	0.86	0.58	1.27	0.446

Of the socio-demographic factors, only gender, secondary school type, religion and person lived with were identified as significant predictors of early sexual debut (LRT=0.016). Socio-demographic predictors of early sexual debut are presented in table 4.9.

Table 4-9 Multivariate analysis of socio-demographic predictors of early sexual debut

		odds ratio	95% CI		P value	LRT
Gender						0.016
	Male	1.00				
	Female	0.19	0.12	0.30	<0.001	
Religion						
	Catholic	1.00				
	Protestant	0.68	0.43	1.08	0.105	
	Muslim	2.03	0.65	6.39	0.223	
	None	2.19	0.95	5.07	0.066	
Person live with						
	Father and mother	1.00				
	Father	1.36	0.60	3.08	0.464	
	Mother	1.31	0.82	2.11	0.263	
	Others	0.34	0.15	0.81	0.015	

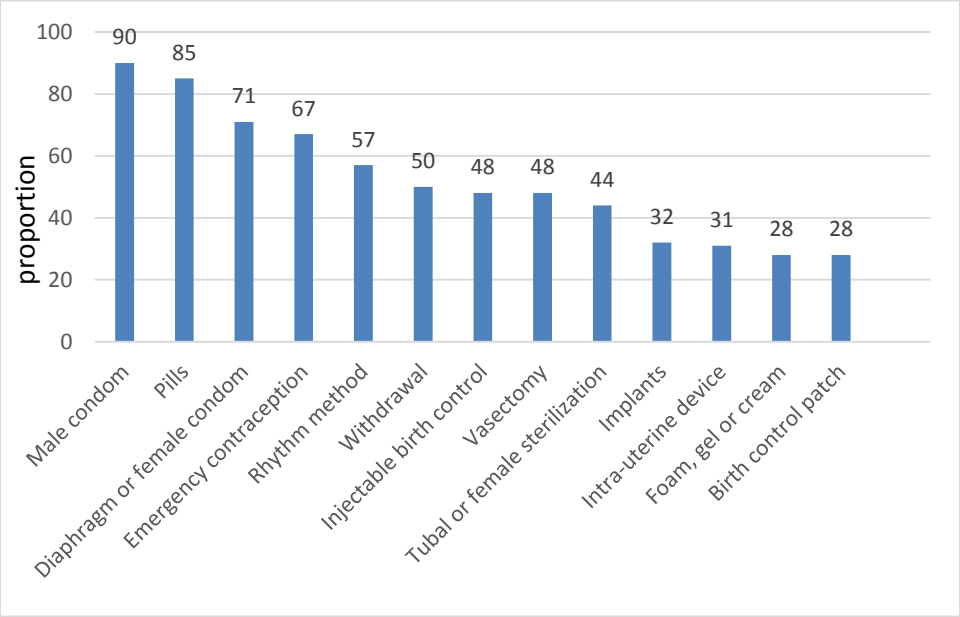
Of the respondent characteristics , think know enough about sex, the need to delay sex for young people , sex education with parent, who discuss sex education with and the feeling whether sex education helped were the significant factors that predict early sexual debut (LRT=0.013) see Table 4.10

Table 4-10 Multivariate analysis of respondent factors protective of early sexual debut

	odds ratio	**95% CI**		**P value**	**LRT**
Think know enough					0.013
No	1.00				
Yes	2.10	1.14	3.87	0.017	
Need to delay sex					
No	1.00				
Yes	0.17	0.09	0.33	<0.001	
Sex education with parent					
Yes	1.00				
Did sex education help					
No	1.00				
Yes	0.30	0.11	0.82	0.019	0.30

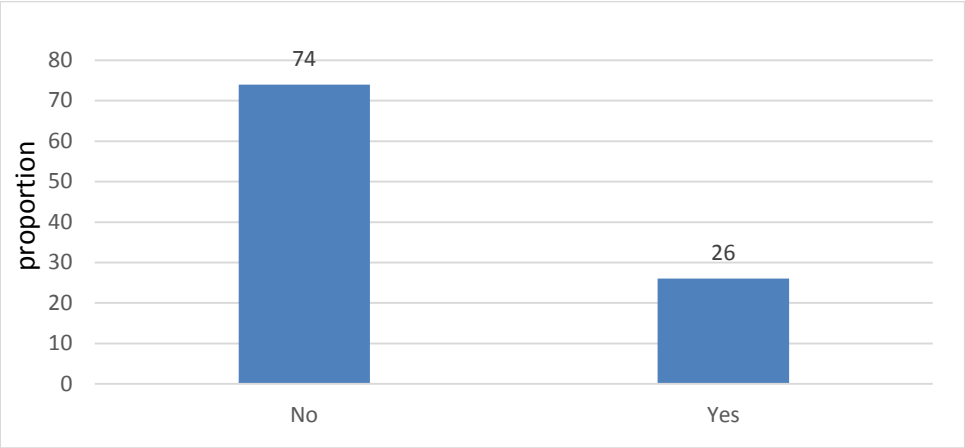
Awareness of family planning was reported by 382 (82%) of the respondents. Of these 382 respondents, male condom, pills and emergency contraception were the commonly known methods reported at 90%, 85% and 71% respectively. Figure 4.5 describes the knowledge of the various family planning methods.

Figure 4-5 Knowledge of various family planning methods



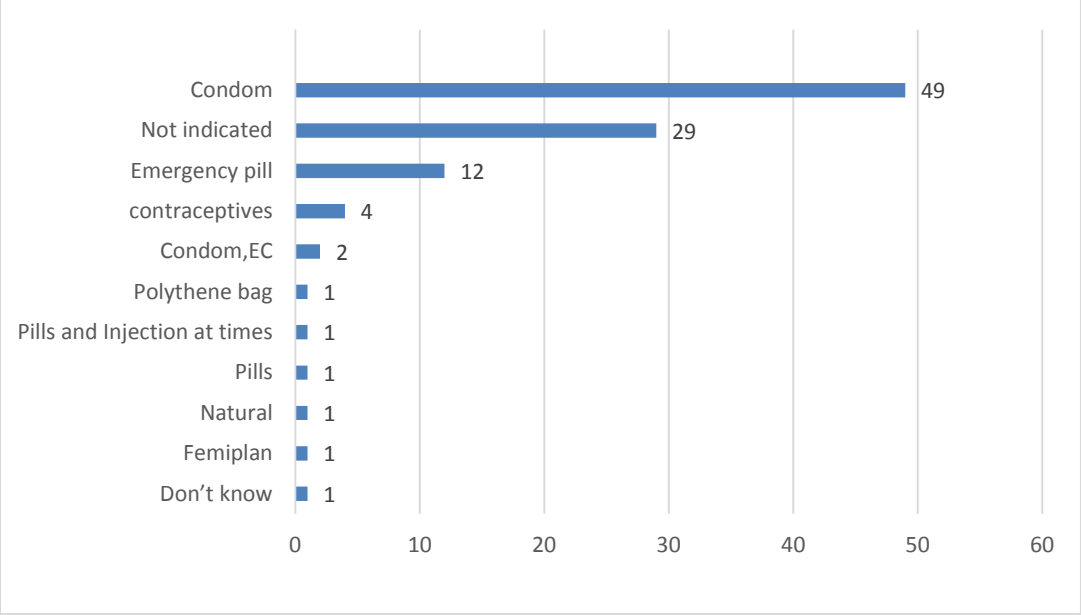
Ever use of a family planning method was reported by only 121 (26%) of the respondents as shown in figure 4.6.

Figure 4-6 History of family planning use



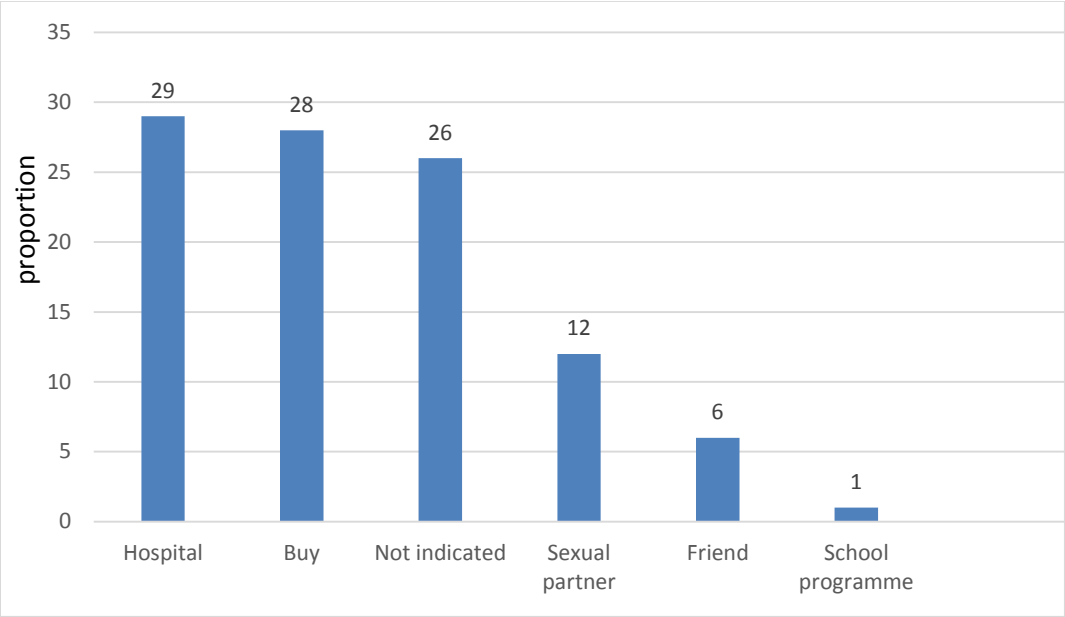
Of the respondents who reported use of family planning method, condom and emergency pill were the commonly used by 59(48%) and 15 (12%) respectively as illustrated in Figure 4-7

Figure 4-7 Methods of family planning used



Of those who reported FP use (121), most of the respondents got their family planning methods from hospital 35 (29%) or bought 33 (27%). Only 1 (1%) of the respondents reported receiving family planning from the school programme. See Figure 4-8

Figure 4-8 Source of access to family planning method used



More than half of the respondents interviewed reported that family planning should be available in schools. Approximately 49% of respondents perceived that only condoms should be availed in schools as a form of family planning. Of concern, 22% of respondents thought that knowledge of family planning encouraged promiscuity. However, of note, 76% of respondents reported that use of family planning was very important to avoid pregnancy. (See Table 4-11)

Table 4-11 Perceptions on family planning from the respondents

	N=464
Family planning methods should be availed in school	
No	214 (46.1)
Yes	250 (53.9)
Condoms only should be availed in school	
No	225 (48.5)
Yes	239 (51.5)
Thinking on FP and decision to have sex	
Prevents pregnancy	205 (44.2)
Prevents STI	49 (10.6)
Encourage promiscuity	101 (21.8)
Should be encouraged	109 (23.5)
How important is it to avoid pregnancy	
Very	354 (76.3)
Somewhat	17 (3.7)
A little	5 (1.1)
Not at all	58 (12.5)
Don't know	30 (6.5)

5 DISCUSSION

Early sexual debut was defined as sexual intercourse before 18 years. In a similar study done in Ethiopia, early sexual initiation was sexual activity before 18 years.(35)

Our study helped to put into perspective the occurrences of early sexual debut, reasons why adolescents engage in sex, circumstances surrounding sexual intercourse and possible outcomes

Overall, just less than fifty percent of respondents interviewed had engaged in sexual intercourse. The mean age at first sex encounter was 15 years while the mean age of the sex partner was 17 years. The KDHS of 2008 showed a similar median age of 17.6 years among adolescents engaging in sexual debut. However the results of this study are comparable to a study done on adolescent sexuality In Nyanza, Kenya (1999)(7), which noted that more than half the girls had sexual debut between 12-15years. Our findings suggest that early sexual debut remains common and the age of sexual debut has not increased despite numerous interventions that have been put in place.

Most of the sexual encounters were with a friend. Of note, students whose sources of information on sex were friends, internet and media had significantly increased odds of early sexual debut.

There is need for active participation of parents, care givers in provision of sexual education to their adolescent children. Sexual education especially by parent was found to be a significant factor in delay of sexual debut. The importance of positive affect, between parent and adolescent child has been implicated in the delay of sexual debut. This is in keeping with a study done in August 2005 in USA which showed that successful parental monitoring was associated with less intention to initiate intercourse.(36) The atmosphere and cohesiveness of the family influences the onset of sexual activity among adolescents.

Majority of the respondents reported sexual encounter during school recess with December holidays being the time at which most respondents had their first sexual encounter. This may be due to the longer period of the said holidays compared to April and August. December holidays are associated with many festivities. Adolescence being a stage of exploration may be associated with carelessness and engagement in high risk behaviour. Low engagement in sexual activity in the periods of April and August holidays may be due to student preoccupation in preparation of forthcoming examinations while in December they are care free. There is need for adoption of healthy recreation like sports, music, boot camps etc during holidays.

In our study, girls reported to have had sex with an older partner whereas boys' first encounter was with a younger partner. This is comparable to a similar study which showed that at sexual debut, females were more likely to have older partners.(36).The reason cited by most adolescents as to why they engage in sexual activity was by choice while the need to feel rebellious was in 13.9% of respondents. This is suggestive of dominance among the males and the girls need for a sense of security. Parents and caregivers need to engage their adolescents in realizing the risks involved in sexual activity at this young age.

Although more boys had earlier sexual debut, more girls than boys reported they had sex with an older partner at sexual debut. This is important since sex with older partners is associated with increased risk of STI including HIV. The higher HIV prevalence observed in girls suggests that the type of partner maybe as important as or more important than the age. (25)Majority of the respondents (68%) reported continued sexual activity after first encounter with the median (IQR)number of life partners being 4(2-6). This could be related to the majority of respondents not regretting the first encounter and none of the consequences of first sexual encounter were significantly associated with early sexual debut. The adolescents do not perceive the

consequences of early sexual activity. It's important to empower these boys and girls on risks of early sexual activity.

Being in boarding school was associated with a lower risk of early sexual debut. This could be due to students in boarding schools are confined and under continuous supervision whereas those in day schools lack supervision and have freedom to carry out their own activities outside school hours. Having sessions with guidance and counseling teachers, engaging these adolescents in supervision and mentorship programmes could help curb high risk sexual behaviour.

In this study, no religious affiliation was a significant predictor of sexual debut. This is in keeping with the common notion that a religious environment influences positive sexual attitudes. Respondents living with father alone were found to be more likely to engage in early sexual activity. A local study done in Mombasa also showed that a background of two parents was associated with late sexual debut.(37) This however contradicts a review done of several adolescent studies which put fathers having high relationship quality with their sons as to being influential in delaying sexual activity.(38)

The need to delay sex, respondents thinking they know enough about sex were important predictors of early sexual debut. In our study, use of the internet, mass media and getting sexual information from friends were predictors of early sexual debut. This is similar to a study done in USA that showed television with sexual content leads to early sexual intercourse and non coital sexual activity.(39).Nine percent of the respondents in our study had sex with partners of the same gender. The reason for this could be cited as exposure to different sexual orientation through media and internet with those using internet as the source of information on sex being 7 times more likely to engage in early sexual debut. Our findings suggest the need to have parental

guidance controls to limit what the adolescents are exposed to and to engage them in sexual education.

During the first sexual encounter, 57 % of adolescents reported contraceptive use. Hospitals were reported as the most likely source of family planning. This is in keeping with a report published in Kenya that showed public health facilities as the common source of contraceptives among users.(21)(40) Many of the respondents were aware of family planning with majority preferring use of emergency contraceptive and condoms over other methods. This study is comparable to a study done on youths in Kisumu that showed that despite high level of knowledge (99.2%) of contraceptive methods, the level of contraceptive use is relatively lower (57.5%) even for the sexually active. In our study knowledge (91%) compared to use at 21%.(27)

Our study calls for wholesome advocacy towards review of guidelines in adolescent counseling and sexual education.

6 CONCLUSION

1. Possible solutions to delay of sexual debut among adolescents is parental engagement in sexual education.

2. Media and internet are important in promoting adverse early sexual behaviour.

3. Being in boarding school reduced the risk of early sexual debut with most of the students engaging in sex when schools were in recess

4. There is continued sexual activity after first encounter with no continued use of family planning. Adolescents do not recognize consequences of early and continued sexual activity.

7 RECOMMENDATION

1. Role modelling and sexual education should engage teachers and parents. This was significantly associated with delay of early sexual initiation.
2. Programmes on safe sexual practices should be aired in the media and in the internet.
3. Sexual health services should include promotion; uptake and provision family planning within school programmes.
4. Need for care givers to adopt healthy recreation for adolescents during school holidays.

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9 APPENDICES

9.1 Appendix I: Consent Form

Study participation consent form

Study topic: *PREDICTORS OF EARLY SEXUAL DEBUT AMONG ADOLESCENTS IN DAGORETTI DISTRICT*

Principal investigator

Dr. Wanjiku Esther Ndung'u, MBcHB. Postgraduate student in Department of Obstetrics and Gynecology, University of Nairobi, 0721-812599

Investigators' statement

I am asking you to be in a research study. The purpose of this consent form is to give you the information you will need to help you decide whether to be in the study on predictors of early sexual debut among adolescents in Dagoretti District. Please read this form carefully. You may ask questions about what we will ask you to do, the risks, the benefits and your rights as a volunteer, or anything about the research or in this form that is not clear. When all your questions have been answered, you can decide if you want to be in this study or not.

Purpose and benefits

The aim of this study is to describe and compare the predictors of early sexual debut among adolescents aged 16-19 years. Through this study we want to understand why adolescent engage in early sexual activity and the circumstances surrounding this engagements.

This study will benefit society by providing information that can be used to improve adolescent health programmes and strengthen sexual education in schools.

Procedures

This is what will happen if you decide to participate in this study. I will ask you questions about yourself, sexual behaviour, knowledge on sexual education and your knowledge on contraceptive use

Risks, stress, or discomfort

You may become embarrassed, worried, or anxious when answering some of the questions as they are of a personal nature. Privacy and confidentiality will be upheld at all times.

Participation in the study will require you to commit your time. Completing the questions will take 12-15 minutes. However, we will try to serve you as quickly as possible.

Other information

We will keep your identity as a research subject confidential. Only the investigator, institutional review board of University of Nairobi Ethics and Research Committee will have access to information about you. The information about you will be identified by the study number and will not be linked to your name in any records. Your name will not be used in any published reports about this study.

You may withdraw from the study; refuse to answer any of the questions asked above at any time without loss of benefit or penalty.

If you have any questions regarding the study you can contact the investigator listed above. You are free to refuse to participate in the study, if you decide not to participate in the study, there will be no victimization.

Signature of investigator _____Date_____

Name of Investigator_____

Participant's statement:

This study has been explained to me. I volunteer to take part in this research. I have had a chance to ask questions. If I have questions later on about the research I can ask the investigator listed above. If I have questions about my rights as a research subject, I can contact the Kenyatta National Hospital/University of Nairobi Ethics and research Committee.

No coercion has been used to influence my decision to participate in the study as explained to me by .....

Participant's name.....

Participant's signature.....

Witness(teacher/guardian)'s signature.....

Date.....

I have fully explained the purpose, risks and benefits of the above study to the participant

Investigators signature.....Date.....

9.2 Appendix II: Questionnaire

SECTION A: SOCIAL DEMOGRAPHICS

1. Age ☐

2. Gender male ◯ female ◯

If female age of first monthly period…….

3 Which type of secondary school do you attend?

i.dayschool mixed ◯

ii. day school(boys/girls) ◯

iii. boarding school, mixed ◯

iv. boarding school, boys/girls ◯

3. What form are you currently in? 3 ☐ 4 ☐

4. What is your current religious background?

i. Catholic ◯

ii. Protestant ◯

iii. Muslim ◯

iv. Hindu ◯

v. None ◯

SECTION B: INDIVIDUAL FACTORS

Ba: Self perception

5. Using a scale of 1-4 with one being, the least true and 4 being the most true, how true would you rate these statements about yourself?

Description	1	2	3	4
I am good at school work?				
I remember things easily?				
I find it easy to make friends				
I have lots of friends				
I have lots of friends as I would want?				
I am popular with peers				
I am happy with the way i look				
I am happy with my weight and height				
I like the way I behave,				
I act as I am supposed to				
I don't do things I shouldn't do				
I behave correctly				

Bb: Attitudes and knowledge towards sex

6. Do you think that you know enough regarding sex? Yes ◯ no ◯

7. To whom do you confide in on issues regarding sex.....

8. Do you think there is need for a young person to delay the age at which they start having sex?

Yes ◯ No ◯

9. What do you think is the appropriate age for one to start having sex? ☐

10. Which of the following best describes you?

- attracted to individuals of opposite sex ◯
- Attracted to individuals of the same sex ◯
- Attracted to both boys and girls ◯
- not sure ◯
- none of the above ◯

Bc: Sexual behaviour

11.Have you ever had sexual intercourse? Yes ◯ No ◯

if no continue to section Bc, ii

Section Bc, i

i. How old were you when you first engaged in sex? ☐

ii. Was the school in session or was it during the school holiday?……

If yes during the holiday, which holiday?

April? ☐

August? ☐

December? ☐

iii. What was the age of your sexual partner? ☐

iv. What was the age difference between you two?

a, same age ☐

b, younger ☐

c ,older ☐

v .What is/was the gender of your sexual partner?

- same gender ◯
- opposite gender ◯
- both male and female ◯

vi. What was the relation between you and your first sexual partner?

- Classmate ◯
- Relative ◯
- Neighbor ◯
- Teacher ◯
- Friend ◯
- Stranger ◯

vii. Was your first encounter vaginal, oral, or anal?

Vaginal ◯

Oral ◯

Anal ◯

viii. Why did you engage in sexual intercourse?

- By choice
- Need to feel rebellious
- Family pressure
- Forced
- Peer influence
- Under the influence of a recreational drug.
- Socioeconomic pressure. Were there any promises? Relationship? Money?
- Knowledge of availability of family planning
- Rape
- Media influence
- After a sexual education class
- Others (specify)……

ix. Did you use any contraception during this encounter? yes no

If yes

- Condom
- Emergency contraceptive
- Others (specify)…….

x. Do you regret having your first encounter? Yes No

x. Did it result to a pregnancy? Yes no

xi. Did it result to a sexually transmitted infection? Yes ◯ no ◯

xii. Was that the last time you had sex?

Yes ◯ No ◯

- If no, how many sexual partners have you had in your lifetime? ☐
- How many sexual partners have you had in the past year? ☐
- How frequently do you engage in sexual intercourse?

Once a week ☐

More than once a week ☐

Only during school recess ☐

When opportunity arises ☐

- How regularly do you use condoms?

Always ◯

Sometimes ◯

Never ◯

- Are you doing anything to prevent pregnancy? yes ◯ No ◯

If yes what?

- Condoms ◯
- Emergency pills ◯
- Others(specify)……..

- Are you under any influence of alcohol or other recreational drugs when you engage in sex? yes ◯ No ◯

Bc, ii:none sexually active

i.What is the reason for abstinence?

- Knowledge of risks(pregnancy.sti.hiv/aids) ◯
- Fear of parents or guardian ◯
- Waiting for marriage ◯
- Waiting for the right partner ◯
- I am too young ◯
- I want to complete my studies ◯

ii. What do you think of sex before marriage?

- Appropriate if one has found the right partner ◯
- Inappropriate ◯

SECTION C: FAMILY FACTORS

12. What kind of homestead do you live in?

i. single parent ◯ if yes, father ◯ or ◯ mother

ii. both parents ◯

iii. disjointed ◯

iv adopted ◯

13.Who is your guardian?

i. mother and father ◯

ii. father ◯

iii. mother ◯

iv. Others(specify)……..

14. Who do you live with?

i. mother and father ◯

ii .father ◯

iii. mother ◯

iv others(specify)……

15.Have you ever had any discussion on sex with any of your parents or guardian?

Yes ◯ No ◯

If yes, which one

- Father ◯
- Mother ◯
- Both father and mother ◯
- Older sibling ◯

- Guardian ◯

Others(specify).....

Was the discussion helpful? Yes ◯ No ◯

SECTION D: ENVIRONMENTAL FACTORS

16. What is your main source of information regarding sex?

- Parents ◯
- Guardian ◯
- Older siblings ◯
- Other relatives ◯
- Friends ◯
- Teachers ◯
- Internet ◯
- Mass media ◯

Others(specify)……

17. Have you ever had a lesson on sexual education?

Yes ☐

No ☐

I don't know ☐

18. How old were you when you had a lesson on sexual education.....

19. Who do you think should provide sex education?.....

20.At what age do you think sex education should start? ☐

21. Do you think sex education should be introduced in primary school?

Yes ◯ No ◯

If yes, which class in primary school do you think sexual education needs to be introduced?.....

22. How easy is it to get money in your household to go to hospital?

- Very easy ◯
- Available ◯
- We would have to borrow ◯

23. What is the level of education of your parent or guardian?

- Did not go to school ◯
- Primary school ◯
- Secondary school ◯
- College/university ◯

SECTION E: PEER INFLUENCE

24. Do you have a social crowd or friends that you interact with on issues regarding sex?

25. What is your main motivation to have/not have sex?.....

26. Do you at times feel the pressure to do something because your friends are doing the same?

Yes ◯ no ◯

SECTION F: GENDER BASED VIOLENCE

27.i Have you ever been involved in any form of gender violence? Yes ◯ No ◯

ifyes,was it

- .physical. ◯
- sexual ◯
- physical and sexual ◯

ii. Was there any adverse reproductive health outcome? Yes ◯ No ◯

if yes, was it

- sexually transmitted infection ◯
- unplanned pregnancy ◯
- abortion ◯
- childbirth ◯
- others(specify).....

iii. Was your meeting

Forced ? ◯

Did it happen willingly? ◯

iv. Did it involve any substance use e.g. alcohol or drugs?

Yes ◯ No ◯

SECTION G: MEDIA INVOLVEMENT

28. Which media sources are available to you?

- Radio
- Television
- Movies
- Internet
- Books/magazines
- Mobile phones

29. Which do you use frequently?

- Radio
- Television
- Movies
- Internet
- Books/magazines
- Mobile phones

30. From which source have you obtained sexual information from?

- Radio
- Television
- Movies
- Internet
- Books/magazines

- Mobile phones

31. What is your view on accessing hotline information services?

- Good
- Not necessary
- Should not be used

SECTION H: KNOWLEDGE AND ATTITUDES ON CONTRACEPTIVE USE

32. Have you ever heard of family planning? Yes No

33.How many family planning methods do you know?1 >1

34. Do you use any? Yes no

If yes, which one? .....

i. How do you access family planning?

- hospital
- friend
- sexual partner
- school programme
- buy if yes where do you get the money from?.....

35. Please tell me if you have ever heard of each of the following methods for preventing pregnancy.

a. Not having sex at all yes ☐ no ☐

b. birth control pills or oral contraceptives (the pill) yes ☐ no ☐

c. male condoms (rubbers) yes ☐ no ☐

d. injectable birth control, like Depo Provera yes ☐ no ☐

e. the birth control patch yes ☐ no ☐

f. an IUD or intrauterine device yes ☐ no ☐

g. a diaphragm, cervical cap, or female condom yes ☐ no ☐

h contraceptive foam, gel or cream yes ☐ no ☐

i. Birth control implants, like Implanon (Norplant, Jadelle)yes ☐ no ☐

j.The rhythm method or natural family planning yes ☐ no ☐

k. withdrawal or pulling out yes ☐ no ☐

l. Tubal or female sterilization yes ☐ no ☐

m. Vasectomy or male sterilization yes ☐ no ☐

n. Emergency contraception or the 'morning after pill' yes ☐ no ☐

36. Do you think family planning should be availed in schools? Yes ◯ No ◯

37. What about availing condoms only? Yes ◯ No ◯

38. What do you think of family planning as far as decision to have sex is concerned?

- Prevents pregnancy ◯
- Prevents sexually transmitted infections ◯
- Encourages promiscuity ◯
- Its use should be encouraged. ◯

39. Thinking about your life right now, how important is it to you to avoid (IF FEMALE becoming pregnant) (IF MALE getting someone pregnant)? Would you say very important, somewhat important, a little important, or not at all important?

Very important ☐

Somewhat important ☐

A little important ☐

☐

Not at all important

Don't know ☐

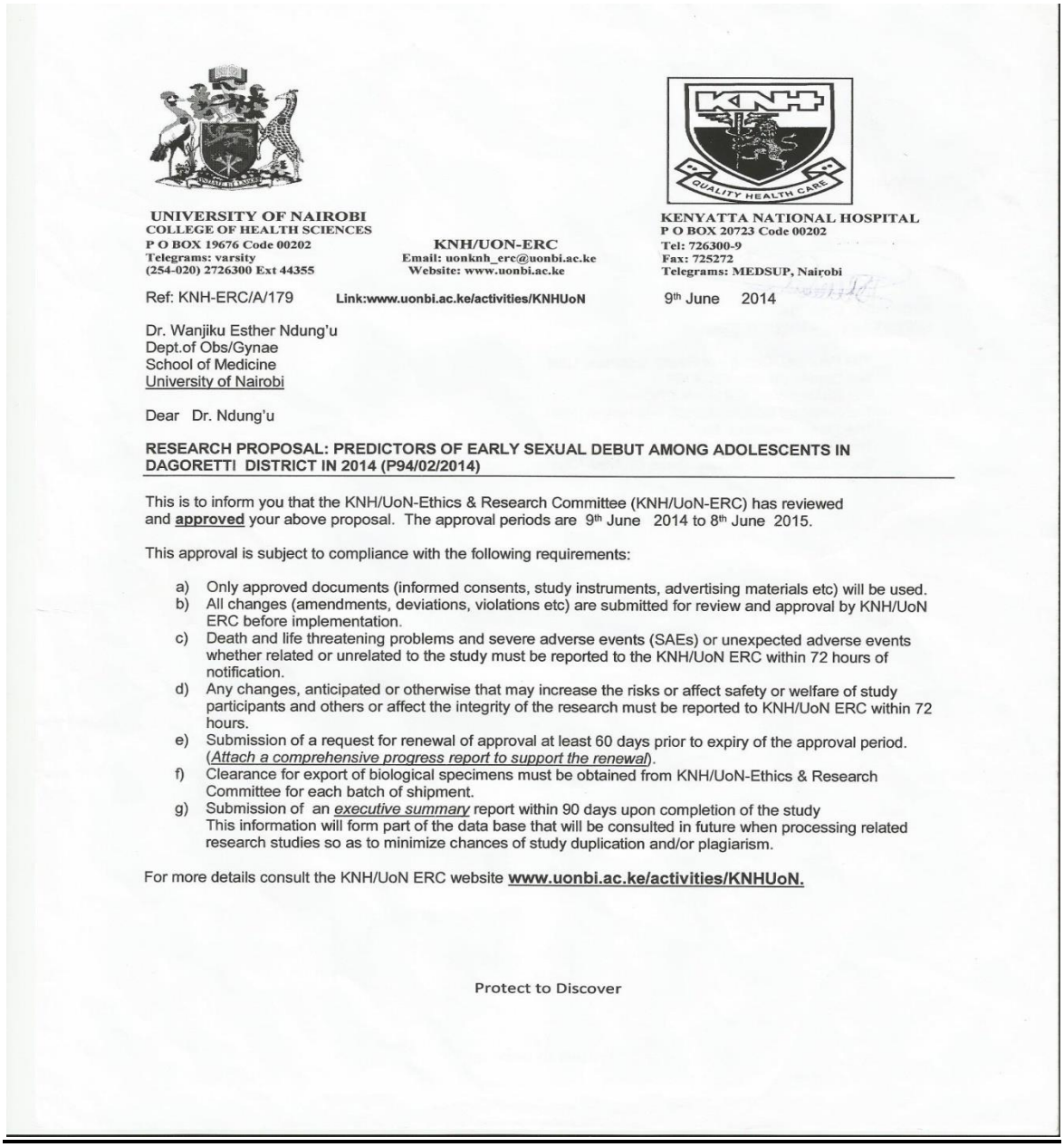
9.3 Appendix III. Timeline

ACTIVITY	Oct-Dec 2013	Feb-may 2014	June 2014	July 2014	Aug - Dec 2014	Jan 2015	Feb 2015	March 2015	April 2015
Proposal writing and presentation									
Approval by ethical committees									
Pretesting of questionnaire									
Data collection									
Data analysis									
Result presentation									
Final report									

9.4 Appendix IV: Budget

Item	Quantity	Unit price(ksh)	Total(ksh)
Stationery			
Printing Paper	7rims	500	3500
Biro Pens	10	20	200
Spring Files	5	100	500
Stapler	1	500	500
Staple remover	1	250	250
Paper Punch	1	600	600
White out	1	150	150
Photocopy and Binding	1	2000	2000
Final Book, Printing and Binding	6	1500	9000
Personnel			
Training	1	3000	3000
Transport	20 days	500	10000
Communication	5	1000	5000
Research Assistants	5	9000	45000
Biostatistician	1	20000	20000
Others			
Ethical Committee(KNH/UON)	1	2000	2000
Ethical Committee(Ministry of Education)	1	1000	1000
Grand total			**Ksh 102,7000**

9.5 Appendix V:Ethical Approval



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Ref: KNH-ERC/A/179 Link:www.uonbi.ac.ke/activities/KNHUoN 9th June 2014

Dr. Wanjiku Esther Ndung'u
Dept.of Obs/Gynae
School of Medicine
University of Nairobi

Dear Dr. Ndung'u

RESEARCH PROPOSAL: PREDICTORS OF EARLY SEXUAL DEBUT AMONG ADOLESCENTS IN DAGORETTI DISTRICT IN 2014 (P94/02/2014)

This is to inform you that the KNH/UoN-Ethics & Research Committee (KNH/UoN-ERC) has reviewed and **approved** your above proposal. The approval periods are 9th June 2014 to 8th June 2015.

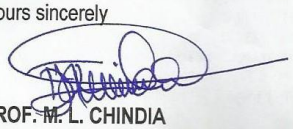
This approval is subject to compliance with the following requirements:

a) Only approved documents (informed consents, study instruments, advertising materials etc) will be used.
b) All changes (amendments, deviations, violations etc) are submitted for review and approval by KNH/UoN ERC before implementation.
c) Death and life threatening problems and severe adverse events (SAEs) or unexpected adverse events whether related or unrelated to the study must be reported to the KNH/UoN ERC within 72 hours of notification.
d) Any changes, anticipated or otherwise that may increase the risks or affect safety or welfare of study participants and others or affect the integrity of the research must be reported to KNH/UoN ERC within 72 hours.
e) Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. (*Attach a comprehensive progress report to support the renewal*).
f) Clearance for export of biological specimens must be obtained from KNH/UoN-Ethics & Research Committee for each batch of shipment.
g) Submission of an *executive summary* report within 90 days upon completion of the study This information will form part of the data base that will be consulted in future when processing related research studies so as to minimize chances of study duplication and/or plagiarism.

For more details consult the KNH/UoN ERC website **www.uonbi.ac.ke/activities/KNHUoN.**

Protect to Discover

Yours sincerely



PROF. M. L. CHINDIA
SECRETARY, KNH/UON-ERC

c.c. The Principal, College of Health Sciences, UoN
The Deputy Director CS, KNH
The Chairperson, KNH/UoN-ERC
The Assistant Director, Health Information, KNH
The Dean, School of Medicine, UoN
The Chairman, Dept.of Obs/Gynae, UoN
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Date:

2nd July, 2014

NACOSTI/P/14/2122/2250

Dr. Esther Wanjiku Ndungu
University of Nairobi
P.O.Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Predictors of early sexual debut among adolescents in Dagoretti District,"*** I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for a period ending **23rd September, 2014.**

You are advised to report to **the County Commissioner and the County Director of Education, Nairobi County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

SAID HUSSEIN
FOR: SECRETARY/CEO

OFFICE OF THE COUNTY COMMISSIONER RECEIVED 02 JUL 2014 NAIROBI COUNTY

Approved
COUNTY DIRECTOR OF EDUCATION NAIROBI 02 JUL 2014 MINISTRY OF EDUCATION P.O. Box 74629, NAIROBI

Copy to:

The County Commissioner
The County Director of Education
Nairobi County.

MINISTRY OF EDUCATION

DISTRICT EDUCATION OFFICE
DAGORETTI DISTRICT
P.O BOX 30124-00100
NAIROBI

Date: 04/07/2014

REF: DAGO/EDU/GA/674

DAGORETTI SECONDARY SCHOOLS

RE: RESEARCH AUTHORIZATION FOR NDUNG'U ESTHER WANJIKU H58/68432/2011 UNIVERSITY OF NAIROBI

The above named has been granted permission by this office to access your school, to carry out research on "**Predictors of early sexual debut among adolescents in Dagoretti sub County,**"
Any assistance given to her will be greatly appreciated.

Thank You.

MINISTRY OF EDUCATION
DAGORETTI DISTRICT
P O Box 30124 - 00100
NAIROBI

BENJAMIN M. MUTHENGI (MR)
DISTRICT EDUCATION OFFFICER,
DAGORETTI