TOPIC: ADOLESCENTS KNOWLEDGE, ATTITUDE AND PRACTICE OF CONTRACEPTION.A STUDY OF SECONDARY SCHOOL STUDENTS - KISUMU DISTRICT

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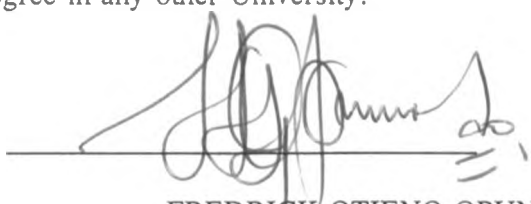
BY: FREDRICK OTIENO OPUNDO

POPULATION STUDIES AND RESEARCH INSTITUTE
UNIVERSITY OF NAIROBI
P.O. BOX 30197
NAIROBI

NOVEMBER 1998.

DECLARATION

This thesis is my original work and has not been submitted fora degree in any other University.



FREDRICK OTIENO OPUNDO.

This thesis has been submitted for examination with our approval as the University Supervisors.

4/11/98

PROF. Z. MUGANZI

4/4/98

DR. M. KIMANI.

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF ARTS (POPULATION STUDIES) IN THE UNIVERSITY OF NAIROBI (POPULATION STUDIES AND RESEARCH INSTITUTE).

DEDICATION

To my father the late Ex-Chief Zackayo Opundo, my mother the late Addah Adhiambo Opundo who first taught me how to read and write. They toiled, suffered and died poor to bring me up. And to all my loving family members who have been a great source of encouragement.

ACKNOWLEDGEMENT

First and for most I thank God who I have always and will always depend on for success. I am profoundly indebted to UNFPA for granting me a scholarship which enabled me to pursue this course. My deepest gratitude goes to my supervisors Prof. Z. Muganzi, Dr. Kimani Murungaru and Dr. L. Ikamari of the Population Studies & Research Institute for their guidance throughout the study.

I am also grateful to the Director of Population Studies & Research Institute Prof. A.B.C. Ocholla-Ayayo and the entire staff of the Institute for their contribution in one way or another. I also wish to acknowledge the contribution of my colleagues and the librarians, specifically Desta, Bonnie, Ursula, Whilmina, Ndung'u, David, Gloria, Mrs. Weru and Mrs. Kimani.

To Mary Achieng' (Mara) , Ruphine and Agnes, there is no way I can appreciate your assistance with the gratefulness it deserves. Thank you so much.

To Florence Akinyi Omondi (Flo) and Joshua Omollo Opundo, I acknowledge with thanks your continuous moral and material support throughout the study.

Lastly, I thank all my friends and all those who helped directly or indirectly in the preparation of the study to the final state.

ABSTRACT

The main objective of this study was to examine the knowledge, attitudes and practice of contraception among the adolescents in secondary schools in Kisumu District. A sample of 400 students aged between 14 and 20 years was randomly drawn from the student population within the district.

In the study, social, cultural, economic and demographic variables are examined. The social variables include parents level of education, students' exposure to mass media, and the effect of HIV/AIDS. Cultural variables include parents religion, family composition desire, and desired family size. Economic variables include parents occupation and usual place of residence. Finally, demographic variables include age, sex, number of siblings, birth order type of parental union (marriage) and the students' age at first sexual intercourse.

The list of all secondary schools in Kisumu District provided the sampling frame from which sample schools were selected. From the selected schools, the next stage was to select the classes and the individual respondents. Random sampling was done in each and every stage and the data was collected by the use of questionnaires.

The major statistical techniques used in data analysis are frequencies, percentages, cross tabulation, chi-square, multiple regression and logistic regression analysis . The study found that most of the adolescents are aware of family planning methods but they were not familiar with the application of most of the methods. Mass media and specifically radio (88.5 %) and newspapers (73%) were the main and the most frequent source of information on family planning methods. Most adolescents are in favour of contraception and they are also of the opinion that family planning

education should be introduced in the school syllabus.

The number of contraceptive methods known and the number of contraceptives whose application are known is best explained by adolescents parents high level of education, those whose age at first sexual intercourse is between 16 to 20 years, and those of the protestant faith. The family planning methods known to the adolescents were as follows: Condoms (93.5 %), Pill (80.3 %) and Injection (59.8 %). While Norplant (8.3%) was the least known. It was also found that adolescents have positive attitude towards contraceptive mainly because of HIV/AIDS pandemic.

With regard to actual practice, about 24 % of the adolescents were using contraceptives at the time of the survey. The condom followed, by the pill are the main contraceptive methods used by both male and female adolescents. This is mainly due to the strong attitude they have that condom is the safest way of preventing unwanted pregnancy and sexually transmitted diseases including HIV/AIDS. The results also shows that female adolescents were using contraceptives more than their male counterparts. Practice of contraceptives is also best explained by the adolescents high birth order, the fear of adverse effects of HIV/AIDS, parents high level of education and occupation, and adolescents age at first sexual intercourse between 16 to 20 years.

It is recommended that family life education be introduced in schools with a view of making teenagers understand the consequences of early sexual intercourse and how they avoid it. Parents and teachers have a role to play in counselling adolescents on family life education and more importantly on HIV/AIDS which is making significant in-road among the adolescents population. radio, newspapers and books/pamphlets should be used to reach the teenagers on family planning issues.

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

Though there is no universally accepted definition of adolescence, it is basically a period of change from childhood to adulthood. During this time an individual experiences physical, psychological, emotional and social change. In fact, it can be said that adolescence is the end of childhood but the beginning of a transitional period in which the youth is neither a child nor an adult. It is a period where there are a lot of changes in feelings and attitudes towards the opposite sex.

Most societies associate the biological beginning of adolescence with the time when puberty starts. But the period when adolescence ends and adult status commences is an issue of social orientation that differs widely among cultures. It was proposed nearly two decades ago by a World Health Organisation Expert Committee that the age limits of 10-20 years be used to describe, chronologically, adolescence (Gyep-Garbrah 1985:3). For the purpose of this paper, "adolescence" will be used interchangeably with "teenage" and encompasses the age group 14-20 years.

Teenagers in many societies face pressure to engage in sexual activity and therefore need information and services to prevent unwanted pregnancies and sexually transmitted diseases. Adolescent sexuality raises concerns in developed and developing countries alike. An average of about 20 percent of adolescent girls give birth every year in some countries in sub-Saharan Africa and the average for all developing countries is about 7 percent; this means that the proportion of adolescents giving birth outside marriage is increasing (Ashford, 1995:24). Bongaarts' recent analysis shows that a bulk of young people in the age structure of the population creates a built-in momentum for population growth. He estimates that if no effort is made to reduce it, the reproductive momentum will be responsible for an increase of 2.8 billion people (Bongaarts,

1993). Data from the World Fertility Surveys (WFS) indicate that in countries like Cameroon, Nigeria, Cote d'Ivoire and Benin, more than 30% of the first births are conceived premarital affair (United Nations, 1989).

Adolescent sexual activity and child bearing has adverse social consequences for premarital fertility, manifested by the disruption of young women's education; in Kenya, and other African countries, pregnant students are required to drop out of school, and in some areas up to 10% of female students curtail their education each year as a result of pregnancy . Although its theoretically possible for them to return to school after the birth of their child, very few do so (Ilinigumugabo 1995:2).

Pregnancy is riskier for the very young women than for those who delay their first birth until after age 20. Complications such as obstructed and prolonged labour are leading causes of death among teenage women worldwide. Furthermore, data from around the world show that babies born to teenage mothers are more likely to die than those with their mothers over age 20. Adolescent pregnancy have made many young women to procure abortion which is illegal in many sub-African countries, for it is the main cause of maternal mortality and has also serious health consequences. This is mainly due to the fact that premarital relations tends to be common in most societies and premarital births are considered undesirable and often result in abortion or infanticide.

The consequences of teenage sexual activity transcend pregnancy, because they are often ignorant about their sexual health, yet they are susceptible to sexually transmitted diseases including HIV/AIDS. The adolescents should therefore be provided with services and knowledge of contraception for the protection of their own health and their children. Developing countries like Kenya, have experienced high rate of development in terms of health and standard of living since independence in 1963. The situation has led to the reduction in mortality rate and rise in fertility

rate leading to high population growth and hence putting pressure on social and economic development. According to the first census in 1948, the population stood at 5,405,966. In 1962 census it was 8,636,265, in 1969 it rose to 10,942,705 at a rate of 3.3 %. In 1979 at the growth rate of 4.1 % it reached 15,327,061 with a doubling time of 17.5 years. The 1989 census shows that the population of Kenya was 21.4 million with adolescents contributing substantially in the rise (Ominde,1988:34).

In sub-Saharan Africa and particularly in Kenya, family planning is not a new phenomenon. In 1967, Kenya became the first sub-saharan African country to adopt an official policy, on population. The Ministry of Health was assigned the task of implementing this national policy and the main objectives were to lower the level of maternal, perinatal, infant and child mortality and to reduce family sizes through birth spacing.

In 1940s, a private voluntary association, Family Planning Association of Kenya, started a family planning program in Nairobi. By 1967 the government began its active involvement in population issues after analyzing the 1962 census figures which indicated an annual growth rate of 3.2 %. A Population Council Advisory mission was invited to study and make recommendations concerning the country future populations. The mission report submitted in 1967, was accepted by the Government and formed the basis of Kenya's population policy . By 1968 the Ministry of Health was operating 40 family planning clinics in cooperation with Family Planning Association of Kenya (FPAK). By that time both Nairobi and Mombasa were sponsoring their own family planning programs (Gyep-Garbrah 1985:7).

At these clinics, in addition to maternal and child health services, family planning advice and contraceptives were offered to adults, mainly married women aged 15-45. In early 1970s, the 1974-78 Development Plan projected a planned reduction of the country's 3.5% annual population growth

rate to 3.3% by the end of 1978. The Ministry of Health Program (1975-1979) stated the ministry's intention that the program reduce the growth rate further to 3.0% by 1980 and 2.8% by 2000 and to lower total fertility rate to 4.7 in the same year. To implement this program, clinic based family planning services were set up in 505 integrated maternal and child health/family planning clinics throughout the country.

Kenya being among the first few African countries to support family planning, her main objectives were to reduce fertility and child morbidity; to reduce the annual rate of increase from 3.3 % in 1975 to 2.8 % by the year 2000; and to increase the use of contraceptives and lay emphasis on small family sizes. The target of reducing the annual rate of 3.3 percent was not achieved instead it rose to 4.1 % in 1979 being one of the highest in the world (Gyep-Garbrah 1985). Population policies in sub-Saharan Africa devote little attention to the specific problems and needs of adolescents especially if they are unmarried. As the age at first marriage rises, the percentage of unmarried sexually active adolescents will increase, and their problems will become more acute. Consequently, this group of the population should be an important target group for future population policies (Ilinigumugabo, 1995:4).

Kenya is characterised by a young population as over 50 percent of the population is aged less than 20 years. The population census of 1989 shows that 34 percent of the population is aged between 10-24 years. Adolescents (ages 10-19 years) comprise 25 percent and the fastest growing segment of the population (Njau, Radeny, 1995:1).

The study area covered Kisumu District in Nyanza province of Kenya. The District was selected through random sampling from among the eight district that form Nyanza province.

1.2.1 Location and History of Kisumu District

Kisumu District is the largest of the eight districts that form Nyanza Province. It covers a total area of 2660 sq. Km of which 567 sq. Km. are under water. It borders Vihiga and Nandi Districts towards the North, Kericho District in the East, Rachuonyo District in the South and Siaya District in the West.

The District lies within longitude 33° 20'E and 35° 20'S and latitude 0° 20'S and 0° 50'S in a large depression of which about 1/5 of the total area is covered by Lake Victoria. Topographically it can be divided into 3 zones: The Kano plains, the upland area of Nyabondo, and the midland areas of Maseno. The District experiences two raining seasons annually with the long seasons occurring in March-May and the short rainy season occurs in September-November.

Rainfall is unpredictable even though there is no entirely dry month in this region. Moreover the nature of soils like the black cotton soils, which are hard to work on without some moisture, makes agriculture very difficult, especially for the small scale farmers.

The main cash crops grown in this region are sugar-cane, coffee, cotton and rice. Main staple food grains in the District are maize, beans, sorghum and finger millet. Livestock-keeping is also taking place in the District of which the main animals are cattle, goats, sheep and donkeys. Zero grazing and poultry keeping are practised in very isolated cases. The district includes a substantial area of water (part of Lake Victoria), which is a productive resource and supports significant fishing activity. The mean annual rainfall in the district varies from 560mm to 1630mm. The variation is influenced by altitude and the proximity of the highlands of Nandi Escarpment and the Tinderet Massive and nearness to the lake-shore and central portion of Kano plains. The highest amount of rainfall, by rank, are found in the areas around Maseno Town 1630mm; Muhoroni Town and its vicinity 1525mm; Kibos and its environs 1290mm; Kisumu

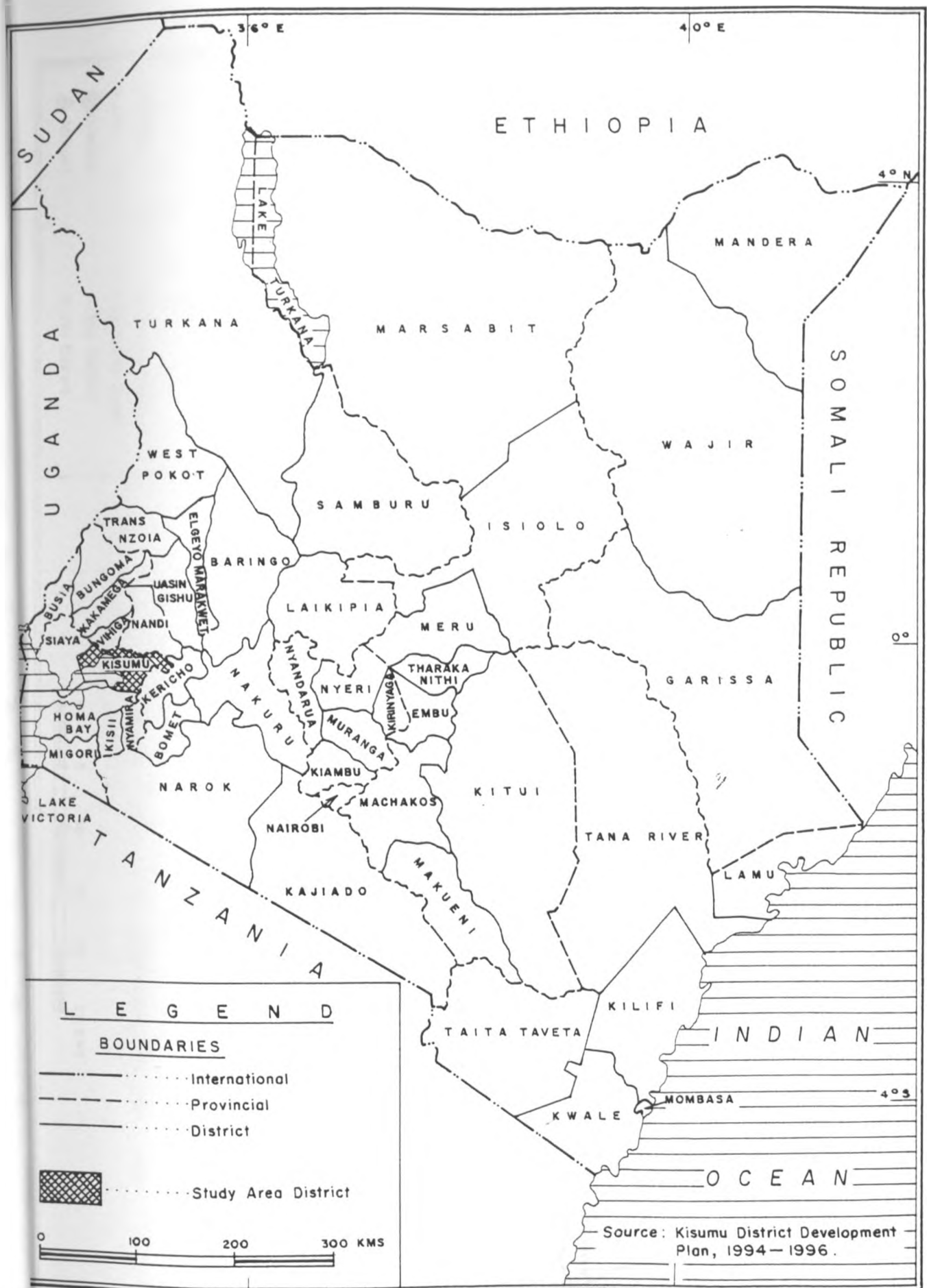
Municipality 1280mm; and finally, Ahero Urban Council 1260mm. The areas with minimal rainfall are around the plains and lake-shore areas of Maseno, Lower Nyakach and Nyando Division. Rainfall statistics in selected areas are as follows: Koru 1103mm; Pap Onditi 712mm; Kombewa 660mm; and finally, Awasi 560mm. The District has an almost uniform maximum and minimum. temperature throughout the year. For every month, the maximum temperatures are 25°C to 30°C and minimum temperature are on average 9°C to 18°C.

1.2.2 Administrative and Political Units

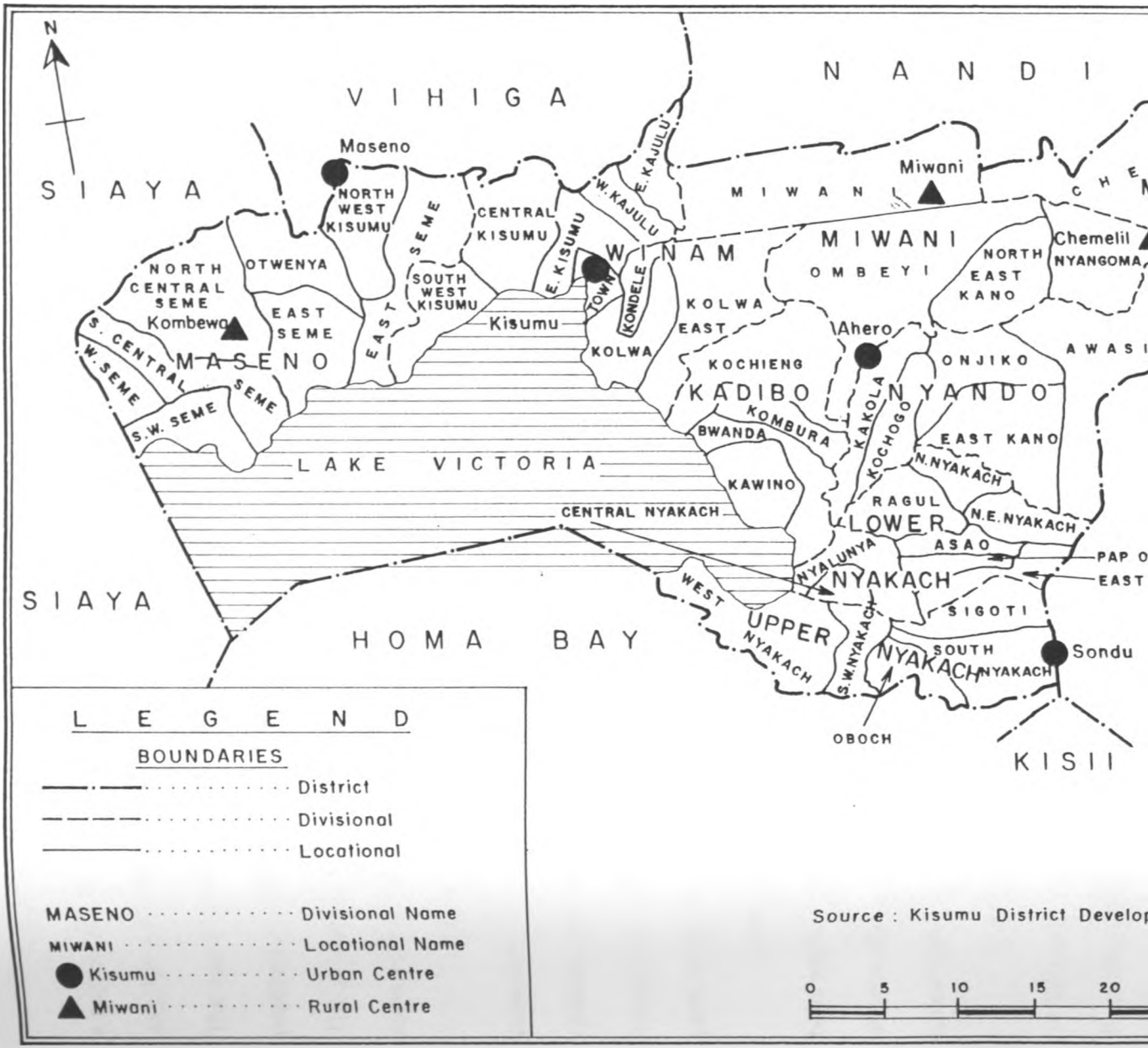
Kisumu District is divided into eight administrative divisions, fifty one locations and one hundred and fifty eight sub-locations. The divisions are Winam, Maseno, Nyando, Muhoroni, Lower Nyakach, Kadibo, Miwani and Upper Nyakach. Maseno Division is the biggest an Winam the smallest territorially. The divisional headquarters are fairly accessible in terms of telecommunications and road network.

The District presently has six constituencies: Kisumu, Kisumu East, Kisumu Rural, Muhoroni, Nyando, and Nyakach constituencies. Each Constituency has an elected Member of Parliament except Kisumu East constituency which was created recently.

The District has three local authorities, namely, Kisumu Municipality, Kisumu county Council and Ahero Urban Council. There are seventeen electoral wards in the Municipal Council of Kisumu, twenty-eight in the County Council, each under a councillor plus nominated councillors. The Municipal Council of Kisumu, situated within Winam Division, is the largest and most important urban centre in Western Kenya, and nerve centre of various commercial activities.
Fig. 1 shows the position of Kisumu District in Kenya. While Fig. 2 shows the major towns and administrative boundaries in the District.



Source: Kisumu District Development Plan, 1994 — 1996.


N
VIHIGA
NANDI
SIAYA
Maseno
NORTH WEST KISUMU
CENTRAL KISUMU
EAST SEME
W. KAJULU
E. KAJULU
Miwani
MIWANI
Chemelil
NYANGOMA
NORTH CENTRAL SEME
Kombewa
OTWENYA
EAST SEME
SOUTH WEST KISUMU
E. KISUMU
TOWN
KONDELE
WINAM
OMBEYI
NORTH EAST KANO
KOLWA EAST
Kisumu
KOLWA
Ahero
AWASI
KOCHIENG
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S. CENTRAL SEME
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SEME
KADIBO
NYANDO
KOMBURA
KAKOLA
KOCHOGO
BWANDA
EAST KANO
N. NYAKACH
LAKE VICTORIA
KAWINO
RAGUL
LOWER
N.E. NYAKACH
CENTRAL NYAKACH
ASAO
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PAP O
EAST
WEST
UPPER
NYAKACH
SIGOTI
S.W. NYAKACH
NYAKACH
SOUTH
NYAKACH
Sondu
SIAYA
HOMA BAY
OBOCH
KISII
LEGEND
BOUNDARIES
District
Divisional
Locational
MASENO Divisional Name
MIWANI Locational Name
Kisumu Urban Centre
Miwani Rural Centre
Source : Kisumu District Develop
0 5 10 15 20

1.2.3 Demographic and Settlement Patterns

The District's population has continued to exhibit an upward trend since 1969 when it had a population of 400,643 with an annual growth rate of 2.8%. By 1979, the population had risen to 482,327 persons at a rate of 3.3%. The number rose to 664,086 according to 1989 census results. The annual growth rate has been estimated to be 3.35%. This means that the District had a total population of 765,048 in 1993, 796,678 in 1994 and by the end of 1996 its expected to be 844,538. The population has continued to be rural-based with 61.6 per cent of the population living in rural areas while only about 38.4 per cent reside in the urban areas

Between 1979 to 1993 the average household size of five persons each in the district is an indication that although the population increased tremendously, the family size remained at three children per family. This can be attributed to vigorous campaigns for family planning and its acceptance, and the near elimination of early marriages among the girls; thus increased school participation rates for girls.

In this District, the participation of girls at primary school level is much more than that of boys while at secondary schools, the boys normally out number the females due to drop outs by girls at secondary school level. It should be clarified that although the population of female primary school-goers is higher than that of boys, only 46-48% of this population attend secondary schools.

According to the 1979 census, the total number of secondary school students aged between 14-20 years was 75,748. 36,636 were males compared to 39,112 females (District Development Plan 1994-1996 Kisumu District.

Table 1.2.3.a Age and Sex Population Distribution

Age Group	Male	Female	Total
Dependants 0-4 0-14	 59,074 110,577	 58,442 109,279	 117,516 220,298
Primary Schools Age 6-13	76,643	76,625	153,268
Secondary School Age 14-20	50,037	53,920	103,953

Source: 1989 Census.

In 1989, the population of secondary school age adolescents, that is those aged between 14-20 was 103,953, made up of 50,037 males and 53,920 females as indicated in table 1.2.3.a above. Which is a large population and it is significant that a study on family planning among them is undertaken.

Kisumu District is served by various urban centres and markets. Some of these include Kisumu Town, Maseno Township, Ahero Township, Muhoroni Market, Awasi Market, Miwani Township, Oboch Market, Awach Market, Kombewa Market, Lela Market, Mamboleo, Daraja Mbili, Kiboswa, Chulaimbo, Holo, Katito, Masogo, Rabuor, Chemelil, Reru, Kaloka, Korwenje, Nyahera, Migingo, Nyangoma, Bodi, Wasare and Pawakuche (District Development Plan 1994-1996 Kisumu District.)

1.3 Problem Statement

Adolescents knowledge, attitudes and practice of contraception in Kisumu District is very low. The standard of living has increased tremendously over the past few decades with more people having better quality food and balanced diet. Children are developing more quickly reaching puberty earlier than the previous generations. However despite their physical maturity, they are often not emotionally mature and are becoming increasingly sexually active.

Despite the fact that family planning programmes have been operating in Kenya for the past thirty or so years adolescents knowledge and practice of contraception is still extremely low. Even their sexual behaviour have not changed with the onset of dreaded disease HIV/AIDS. They are therefore at a risk of unwanted pregnancy and acquiring sexually transmitted diseases including HIV/AIDS.

Little is known about adolescents knowledge, attitude and practise of contraception in Kenya particularly in Kisumu District. Very few studies that have been carried on family planning in Kenya have included adolescents. Yet these young people constitute 50% of the total population but have been neglected due to the belief that this will promote immorality among them; the idea which is mainly guided by traditional norms.

The adolescents attitude, practice and knowledge of contraception is very low, meaning that a lot of cases of pregnancy, early marriages, increase of premarital pregnancies, abortion, and school drop outs among the adolescents is very alarming, including HIV/AIDS which is making significant in-roads into the most fertile adolescent population.

The consequences mentioned above are so costly to the adolescents themselves, the family and the whole society. The young adolescents will usually drop out of school when they become pregnant. This means that they will be without any relevant skills to be absorbed in the formal

sectors hence ending up forming the pool of unemployed in Kenya. With little knowledge of child responsibilities and in the absence of social support they end up in a cycle of poverty and hence high rate of infant mortality. At family level, the addition of a new member at this early age means that the already limited family resources are overstretched. The increase in adolescent fertility is a problem that Kenya would happily do without especially at this time that private and public agencies are busy trying to control the high level of fertility. All this leads to a lag in economic growth (Khasiani, 1985:4).

The question that this study addresses and attempts to investigate is what is the level of their knowledge, attitude and practise of contraception based on social, cultural and economic variables. The emanating results from this study will contribute substantially in the policy issues relevant to improving the adolescents welfare.

1.4 Justification of the Study

Adolescents knowledge, attitude and practice of contraception is a great area of concern because they form about 50 % and it is the fastest growing segment of the population. It is therefore extremely necessary to undertake the study because contraceptive use among adolescents in this region and in Kenya as a whole is very low.

Kisumu District, which was randomly selected from the eight districts that make Nyanza Province, formed the study area. And going by the number of pregnancies among secondary school students, high rate of sexually transmitted diseases including HIV/AIDS, early marriages, premarital pregnancies, school drop-outs and abortion among the adolescents, a study ought to be done to find out the adolescent knowledge, attitudes and practice of contraception, so as to find the possible solutions to the problems mentioned above.

The family planning methods on the adolescents should be thoroughly studied to determine the role they play in fertility reduction and the spread of sexually transmitted diseases including HIV/AIDS which is really spreading at a faster rate among the adolescents and yet it has no cure or vaccine. Further , pregnancy and unsafe abortion are the leading causes of death among adolescent women, mainly because abortion is illegal and it is done under unsafe conditions by the adolescents . Infant and child mortality is also high at very young maternal age, this because of poor attendance of prenatal and antenatal care , but mainly because adolescents reproductive system have not matured enough to manage a birth. Family planning study among them will therefore be effective in reducing abortion, infant and child mortality and maternal mortality among the adolescents.

The current contraceptive use in Kenya has risen from 7%(KFS 1977/78) to 17%(KCS 1994) and 27% (KDHS 1989). This is still comparatively low and more so among the adolescents. Adolescents contribute 20 percent or more to the fertility level in Kenya and it will be very necessary to reduce or do away with the adolescent fertility at this time that the government and public agencies are busy trying to control the high level of fertility. This can be effectively done by studying their knowledge, attitudes and practice of contraception.

It is hoped that the information and recommendation in this paper will contribute substantially to the efforts to increase contraceptive prevalence and eventually fertility reduction and the control of the spread of sexually transmitted diseases including HIV/AIDS among teenagers in Kenya.

1.5 Objectives of the Study.

The main objective of the study was to determine the knowledge, attitudes and practice of contraception among adolescent secondary school students in Kisumu District.

The specific objectives were :

i). To find out if their social,cultural, economic and demographic background influence their knowledge, attitude and practice of contraception .

ii). To find out the desired family size among the adolescent students.

iii). To find out whether HIV/AIDS has an influence on the adolescent students knowledge, attitudes and practice of contraception.

iv). To assess the adolescents' sources of information, availability and accessibility on contraceptives and reproductive facilities.

v). To generate and make available information for policy implementation and further research.

1.6 Scope and Limitation of the Study

The generalisation in this study was made on the adolescents knowledge, attitudes and practice of contraception from a sample which was drawn from secondary school students in Kisumu District. It was easy, less expensive and less time-consuming to sample the adolescents in secondary schools.

The samples drawn from the adolescents secondary school students in Kisumu District was fairly accurate since majority of those who fall in adolescent age group are in secondary school. It is only the randomly selected secondary schools in Kisumu District that the samples were drawn from due to the constraints and limited resources available for the research. The sample size of 400 adolescent secondary school students aged between 14 to 20 years in Kisumu District were interviewed.

CHAPTER TWO

LITERATURE REVIEW

2.1.1 Introduction

Scholars, government agencies and non-governmental organisations all over the world have done studies on contraception and adolescents. The high rate of adolescent fertility has caused great concern to most governments and organisations that it has become very necessary to preach family planning by emphasising the use of contraception among the adolescents.

High levels of knowledge and practice of family planning are associated with birth in an urban or metropolitan place, marital status, high level of education, a husband with a higher level of education, women's mother bearing fewer children. The issue of adolescent sexuality has become a contentious one in the international debate on population policies. One view point is that providing adolescents with information on their sexuality will encourage early sexuality and promiscuity. The opposing view is that young people need information about their sexuality to make them more responsible. This is because adolescents in many societies face pressures to engage in sexual activity and therefore need information and services to prevent unwanted pregnancies and sexually transmitted diseases.

Adolescents constitute an important segment of the African population. Adolescents aged 15-24 years comprise about 20 percent of most countries in the sub-Saharan Africa. In 1985 there were 122.4 million adolescents aged 10-19 years in Africa. By 1990 this had risen to 170.4 million and is projected to reach 223.7 million by the year 2010. The Kenya population census of 1989 shows that 34 per cent of the population is aged between 10-24 years. Adolescents (ages 10 -19 years) comprises 25 percent and are the fastest growing segment of the population. (Njau, Radeny, Muganda 1992:1).

The average rate of 20 percent of adolescents give birth every year in some countries in Sub-Saharan Africa. Even in the United States of America where information on reproductive health services are widely available, the annual average is 6 percent (Ashford 1995:24). Although, the rate of adolescents childbearing has began to decrease in most countries, the proportion of adolescents giving birth outside marriage is increasing. More so, in countries like Tanzania, more than half of women are wedded before their 19 birthday. In Botswana, 37 percent of unmarried 18 year old women had at least one birth in 1988 . The consequences of adolescent pregnancy transcend pregnancy because they often are ignorant about their sexual health, for example, adolescents are especially susceptible to sexually transmitted diseases including HIV/AIDS (Ashford, 1995:24).

According to the 1980 and 1990 census of Zambia, the majority of the population was concentrated between 0-24 year age group. Between 1980 and 1990 the number of adolescents increased by 55 % and according to the Zambia Demographic and Health survey (ZDHS) 1992, there was one in every four teenage women who had already had a child and 7 % were pregnant.

Between 1982 and 1992 out of reported cumulated HIV/AIDS cases (7124), 67 % occurred between twenty and thirty nine years of age. Given the average incubation period of HIV, it may be inferred that most of these cases may have contracted HIV as early as 14 years of age. This means that teenagers are indulging in sex as early as fifteen years of age, thereby exposing themselves to sexually related diseases and potential criminal abortion. This is mainly due to the fact that the practice of contraception is extremely low (Mafulu 1996).

Studies in the United States of America by the National centres for Health Statistics showed that as the birth rate declined in the last decade, births to teenagers became a larger proportion of all births. For example, in 1968, of over 600,000 infants, 17 percent of all births in that year were born to under 20. More than 200,000 of the mothers were 17 years or younger. So in 1968, 17%

of all births were teenagers as compared to 14 percent in 1961. This shows an increase in the number of illegitimate births at young ages. The changes are partly due to increase in the number of teenage population (Juma, 1992:19).

There was close to 15 million teenage females in the United States; in 1977 the 571,000 births to teenagers represented over 17 percent of all births. Teenage childbearing is at a relatively high level because of the rather high rate of non use of contraceptives, the prevalence of ineffective methods among users, and increase rates of sexual activity among teenagers for instance, in 1976 less than two-thirds of the sexually experienced, never married women of ages fifteen to nineteen reported having used contraception the last time they had intercourse and over 53 percent of the users had used the relatively ineffective methods of douche, withdrawal, or rhythm. Also the proportion of never-married women in that age group who have had sexual intercourse increased from 27 percent in 1975 to 35 percent in 1976 in United States (Weller and Bouvier 1981 c.f. Zelnick and Kanter 1976 and 1978).

Result of the John Hopkins study of adolescents sexuality , contraception and pregnancy in the United State shows that only 20% of premarital pregnancy were intended by women aged 15-19 who were not married at the time of pregnancy outcome. For those women in the same age group who were married at the time pregnancy outcome , almost one-half of premarital first pregnancies were intended. For both groups, it is important to note that approximately 85% of the women didn't use contraception at the time of their unwanted conception. It is becoming increasingly apparent that a greater proportion of unwanted fertility in the United States may be attributable to unwed teenagers (Morris 1975).

Whereas teenage pregnancy is on the increase in the developing countries, some developed countries revealed major declines . Studies in Canada revealed a fall in teenage pregnancy rate by

23.6 percent from 53.4 in 1975 to 40.8 in 1985. This decline can be attributed to the decline in annual number and rate of marriage in Canada. Marriage rates to teenage females decreased by 72 percent from 58.3 in 1972 to 16.5 in 1985. The median age for first time marriage for females increased by 2.4 years from 21.3 years in 1972 to 23.7 in 1985. Fertility and induced pregnancy termination in Canada are influenced to a large extent by changing marriage patterns, availability and access to facilities for abortion and sexual behaviours including knowledge and use of contraception (Juma, 1992:19).

Despite the fact that sexual activity among the adolescents is quite high and teenage pregnancy is on the increase, knowledge and use of contraceptives is low. DHS and other existing data suggests that the percentage of sexually active adolescents using contraceptives is very small. In Kenya 53.8 per cent of boys and 69.8 percent of girls aged 15-19 years knew of no contraceptive methods, while in Ghana, 41 percent of girls aged 11-18 knew nothing about birth control. In Sierra Leone, only 8 percent of the girls aged 15-19 who were married or had children had ever practised contraception. The proportion of the married adolescents aged 15-19 years using contraceptives range from 0.4 percent in Senegal to 28.4 percent in Zimbabwe. In Botswana, Nigeria and Zimbabwe, unmarried sexually active teenagers were more likely to use contraceptives than their married counterparts. In the other countries surveyed by DHS, less than 10 percent of all teenagers used a modern method of contraception (Sai 1995).

In Africa, the Crude Birth Rate for adolescents 15-19 years ranges from 251 per 1000 in Burundi to 230 per 1000 in Liberia, and Kenya is ranked fifth, while the CBR for adolescent 20-24 years ranges from 229 per 1000 in Madagascar to 379 per 1000 in Sierra Leone and, Kenya is ranked third according to Gyep-Garbrah (1985). In Kenya, the available information shows that adolescent fertility has been increasing.

The fertility rate among the teenagers aged 15-19 from 141 births per 1000 women in 1962 to 179 in 1979. The number rose to 152 in 1989. This clearly shows a constant increase in births to teenagers. This can probably be attributed to a combination of an increase in the out-of wedlock births. The teenage fertility rate in Kenya will also increase as the overall health and nutritional conditions continue to improve and knowledge and use of contraceptive methods remain very low.

Studies estimate that as many as 70 % of unmarried male adolescents and nearly 25 % of their female counterparts have premarital sexual experience. Data from the 1993 Kenya Demographic and Health Survey (KDHS) indicates that the median at first marriage for women aged 20 - 49 is 19.2 years, while the median age at first intercourse is 16.8 years (Kiragu and Zabin 1995:108).

Young Kenyans who may want to reduce the risk of STDs and unwanted child bearing face many obstacles that restrict access to contraceptive services (Kiragu cf Kigondu 1986, Sanghvi 1986). While the political establishment is sincerely concerned about the school girls pregnancies, legislative inertia to effectively address the issue remains slow and apprehensive, perhaps because providing birth control services is perceived as tantamount to sanctioning premarital sex. In a country with strong religious leanings, emphasis is on sexual self-restraint, and proposal of providing adolescents with contraceptive services is often dismissed as "dishing pills to school girls". Therefore, while government policy is to " ensure availability of contraceptive services for women and men who are ready and need them", in practise , unmarried adolescents have little access to such services (Kiragu cf. Kigundu 1996:4).

Inconsistency between government policy and practice creates an atmosphere of uncertainty, so that young people do not know whether they can obtain contraceptive services and family planning providers are unsure as to whether serving adolescents is appropriate. Contraceptive

education is also a sensitive issue, and the extent to which it is covered varies widely from school to school. Consequently, the contraceptive needs of young people remain largely unaddressed. Lema (1987) found that only five percent of the sexually active girls he interviewed were using birth control. In Machakos, Maggwa (in Lema and Njau, 1988) placed the figure at three percent, while Khasiani (1985) placed hers at less than one percent. In the former South Nyanza, Obongo (1989) presents appreciably different results; he found that 43 to 57 percent of the sexually active school girls had used birth control and forty four percent of the Harambee school girls were current users (Kiragu 1991:4).

In a country-wide study done by the AMREF in 1992 on female adolescent health and sexuality in Kenyan secondary schools, out of the total respondents, 34% had ever-used contraceptives and the oral pill was the most popular choice among the girls.

The AMREF report shows that male sex partners of the respondents did not use condoms frequently during sexual intercourse with the respondents as shown by the analysis on 12 schools districts, where Nairobi district recorded the highest percentage (79%) of never-use of condoms. The lowest percentage (51%) of never use-use of condoms was recorded in Meru schools districts.

A statistically significant difference exists in contraceptive ever-use rates relative to the place the girls lived. Urban girls had the highest ever-use rate of contraceptives (21.1%), and followed by the urban/rural girls (20.4%), and then a distant last were girls who lived in rural areas (15.3%).

Thirty five percent of the respondents knew that HIV/AIDS is preventable by use of condoms during sexual intercourse, 34% thought condoms could not protect against AIDS and 30% said they did not know that condoms can protect against HIV/AIDS transmission.

The study established a significant difference in the use of contraceptive and the place of residence. Urban girls were 1.4 times more likely to used contraceptives than their counter parts from the rural areas. Similarly urban/rural respondents were 1.3 times more likely to have used contraceptives than their rural sisters. The study was carried out on adolescent girls only . Furthermore, the emphasis on their knowledge , attitudes and practice of contraception was very low. Out of the districts studied, Kisumu was not among them.

A recent study on the sexuality behaviour on the adolescents based on the data collected from secondary school students was done by Nyamwanga. In his sample size of 375 students, he examined the adolescents' knowledge of HIV and condoms and what they reported on the use of condoms. He found out that most of the adolescents knew about HIV/AIDS and the main source of information was the radio (75%). Most adolescents (69.9%) recommended the use of condoms as a way to prevent HIV/AIDS. On practise, he found that most of the adolescents in urban areas used condoms more than those in the rural areas. The Chi- square method was used and revealed an association between response, residence and gender (Youri 1993:5). The study done by Kyalo (1996:11) also confirmed that place of residence has an influence on contraceptive use . It was found out that those women who live in the rural areas are more likely to be non contraceptors when compared to those living in urban areas. Based on this there is a possibility that the adolescents living in urban areas may have higher levels knowledge and practice of contraceptives than their rural counterparts.

Mugwe's study of how socio-economic and demographic variables relates to adolescents fertility (in Adebayo 1996:15) in Kirinyaga District in Central Province of Kenya, shows that adolescents in this area engage in sexual activity at very tender ages. Boys start much earlier with higher frequency than girls. The study also found that despite the knowledge of contraception, the

level of use is quite low. The majority of the respondents interviewed blamed their parents for the increasing levels of adolescent pregnancies because of lack of guidance and counselling on sexual matters.

2.1.2 Socio- Demographic Factors

Age at menarche has really gone down among the adolescents mainly due to better nutrition and improved health facilities. The adolescents today are healthier and very active sexually . This, therefore, means that girls are prone to pregnancy leading to high increase in adolescent fertility and a wide spread of sexual transmitted diseases including HIV/AIDS. Adolescents girls who get married when very young have a first birth at early age and tend to bear their subsequent children at a rapid rate so that the interval between the births are relatively small. Coale (1974) argues that early marriage provides the longest reproductive life between couples resulting in the fastest increase of population in the shortest period of time. However, age at menarche; age at first sexual intercourse or age at marriage do not have direct influence on adolescent fertility. It is through other factors such as use or non-use of contraceptives (Juma, 1992:21).

In Africa generally, most women have already had a baby by their 19th birthday. 40 percent of them before age 17. In Nigeria, nearly one million babies are born to adolescent mothers every year and in one Nigerian secondary school more than 30 percent of girls had abortions. Girls who get pregnant while still at school are normally not readmitted, so their education is ended prematurely (Sai, 1995:37). In another pilot study by Oyeka (1986) in Nigeria on knowledge, attitude and practise of family planning among secondary female students established that contraceptive use was very low. Use of methods and age revealed that rhythm was the most popular among them. The older adolescents (20 years and above) and those who use contraceptives had greater reliance on

rhythm and condoms than the younger and unmarried.

Gachuhi (1972) conducted a study on the sexual knowledge and practise among Kenyan youth using a sample of 320 students aged 15-25 year drawn from 24 districts in Kenya. The study concentrated on knowledge and attitude towards family planning and ideal family size. He established that knowledge of family planning increased with education. He found that very few students had used contraceptive although they are sexually active and start it at very early age. It was established from the study that male adolescents preferred to have fewer children than their female counterparts and the number of desired children decreased by education.

In 1977 there were close to 15 million adolescents in United States of America. The 571,000 births during that year by the adolescent girls represented 17 percent of all births. Adolescent childbearing is at a relatively high level because of the rather high rate of non-use of contraceptives, the prevalence of ineffective methods among users like douche, withdrawal and rhythm, and increased rates of sexual activity among adolescents. In Latin America, the rates of adolescent pregnancy vary from 100 per 1,000 total births in Jamaica to 18 in Brazil. Incidence of adolescent pregnancy as early as 13 years has been reported to be 0.4 percent in Chile to 19 percent in Brazil.

Adolescent mothers are prone to risks associated with the girls small size, to those resulting from anaemia, systematic hypertension during pregnancy, sexually transmitted diseases including HIV/AIDS, abortion, poor antenatal care, increased puerperal complications, prostitution and further adolescent pregnancies. It is unfortunate that in some societies pregnancy signals the end of schooling.

One out of five African males is between the ages of 15 to 24. The majority of these men have sex before marriage. On average men in Kenya and Zimbabwe are sexually active for eight and five years respectively, before they marry. In Tanzania men are sexually active for an average of

seven years prior to marriage. The percentage of young men having their first intercourse before age eighteen ranges from a high of 73 percent in Kenya to 38 percent in Zimbabwe. The growing number of young men combined with the significant age gap between first intercourse and marriage indicate a tremendous need for IEC and reproductive health care for young adult. This is particularly true in light of the HIV/AIDS pandemic (Cynthia 1995).

Adolescent boys who marry and participate to a major extent in the care of the baby suffer significant behavioral and academic problems. They also may be deeply affected if they desert the girl because of distressing social/peer pressures.

The largest sample group of under-served people world wide is undoubtedly the adolescent population from 15 to 19 years of age. Not all are sexually active of course, but in all continents and especially in Africa, increasing numbers are high rates of adolescent pregnancy and abortion are found in industrialised and developing world societies. One reason that the contraceptive needs of adolescents are ignored is that single women are always excluded from the surveys so they do not appear in statistics. What is worse, in most countries of the developing world family planning clinics only cater for married women and most adolescents are unmarried. In Ghana adolescents contribute up to 20 per cent of births annually. Many pregnancies arise out of ignorance, because young people receive inadequate education on sexual and reproductive health. Sexually transmitted diseases are common among adolescents in some countries for the same reasons (Sai 1994).

Adolescents are contributing substantially to the high level of fertility in Kenya which has a current growth rate of 3.3 percent per annum. It is therefore important to make family planning widely available at the community level, especially in rural centres. Communities should be directly involved in the design and implementation of these services and particular attention needs to be given to high risk groups including adolescents. In the study done by Otinda among university students,

he realised that the students who started sexual intercourse at an early age are more likely to use contraception than the ones who started at later ages (Otinda 1992:165).

2.1.3 Socio-Cultural factors

In the ancient time in Kenyan societies, 'family life education' to the teenagers was the responsibility of grandparents and aunties. But this kind of institutional arrangement has since broken down due to urbanization and industrialization. Therefore very few institutions have emerged to provide family planning services to the adolescents in Kenya. Parents, teachers, schools, and religious institutions have not handled the issue of family planning effectively among the adolescents.

To fulfil this gap, young people are looking for all possible channels of information about family planning some of which are not very good. Those in schools and urban areas have only their peers to learn from and mass media to turn to for sexual guidance. While schools and religious institutions shy away from involvement or restrict themselves to particular meaningless do's and don'ts. The theory sees peer pressure as an important factor in conditioning, modelling and providing sexual education for the teenagers which in many instances is not comfortable with the parents (Juma 1992:29).

This has resulted to ignorance, misinformation and confusion regarding family planning among adolescents. In the study carried out in Siaya, Bungoma, Kilifi and Kiambu districts also established that, almost one fifth of the adolescents interviewed in each district who had heard of condoms thought that their religion prohibits their use. Over a third of the adolescents interviewed who are aware of the condom's existence believe that it get stuck in the vagina. This belief is most widespread in Siaya district where it is held by 56 % of those interviewed (Ilinigumugabo 1994:37).

It is reported in a UNFPA publication that in the United States, the highest incidence of gonorrhoea in women is among 15 to 19 years old; among males, 15 to 19 year-olds have second highest incidence (UNFPA 1997:20).

Figures are scarce for Africa in respect to the rate at which its population is being affected by sexually transmitted diseases. But other researchers have found gonorrhoea infection rates as high as 60 per cent in some populations in Nigeria and 20 percent among school girls in Cameroon.

Zambia too has quite a high incidence of sexually transmitted diseases. In 1988 about 40 percent of school going adolescents screened were found to have STD (Nzovu cf. Likwa, 1995). The majority of new HIV/AIDS cases are in the 15-19 age group. In 1994 more than 5 percent of the cumulative total number of persons with HIV/AIDS and AIDS related complex are aged between 15-19, with female being the majority, an indication of early engagement in sexual activity. The ZDHS found that the median age at first intercourse is 16.3 years for women. It has also been noted that HIV/AIDS is currently the leading cause of mortality among adolescent males and the second leading cause of death for adolescent females in Cote d'Ivoire (Ashford, 1995:27). The threat of AIDS may encourage the use of condoms which may have its own effects on fertility.

In the already mentioned study carried Siaya, Bungoma, Kiambu and Kilifi districts, it came out clearly that sexually transmitted diseases seen to be rampant among adolescent girls. A good number of the girls interviewed accepted having experienced itchiness around the genital area and incidence of abnormal vaginal discharge. But only 20 % of the adolescents surveyed were using a contraceptive method as at the time of the survey. And only 11.1 % were using modern methods.

In this, a total of 1,058 adolescents were interviewed of which majority of the interviewees had been pregnant, some were still bearing the first pregnancy, a big fraction had delivered once and a smaller fraction had more than two pregnancies. The samples were identified using a snowball

(mudball) approach for community based study. The study reveals that approximately 25% of the adolescents can be estimated to have experienced some form of sexually transmitted diseases. More so, they have heard about HIV/AIDS and were aware of its various modes of transmission, symptoms and signs which may be indicative of the disease. It was discovered in this study that contraception was fairly known among the girls interviewed; that is, 28% were using a method of contraception at the time of the survey and among these 16% were using modern methods. The main methods opted for were periodic abstinence, the pill, the condom, injectable and coitus interruptus. This study which was only done on adolescent females revealed that the use of contraception increases with both age and level of education. Generally contraceptive use was higher among married adolescents than single ones (Ilinigumugabo, 1995:35). The methods of analysis in this study were percentages and frequency distribution based on the knowledge on contraceptive methods, age, level of education, marital status and use of contraceptives. The well known methods in descending order were pill, injectable, coil (IUD), abstinence and female sterilization. Most commonly used methods in order of ranks were abstinence, pill, condoms, injectable and withdrawal.

In 1985 a study of adolescent fertility based on female high school students was done in Nairobi area by Khasiani. The study units were girls who were currently pregnant and had dropped out of high school due to pregnancy, as well as girls who were pregnant and still enroled in school but faced the prospect of leaving school. This study also covered girls who had recently dropped out of school due to pregnancy and had given birth and a total of 109 respondents were interviewed. Supplementary information were also obtained from the officials in the Ministries of Education, Health, Labour and Culture and Social Services as well as heads of mixed and girls school, Maendeleo ya Wanawake officials and the adolescent mothers.

The results showed that most adolescent pregnancies occur to girls aged between 15 and 18 years. A substantial number of respondents drop out of school after completing either 1 or 2 years of secondary education.

The study found that 43.1% of the respondents had not been exposed to any kind of contraceptive information. Majority of those who had not been exposed to any kind of contraceptive and reproductive health information were those in the age group 13-14 years. More that half (52.3%) were familiar with the methods that prevent an unwanted pregnancy but indicated that they had not been exposed to the full range of contraceptives and reproductive health information.

This study showed that while more young people are engaging in premarital sex, very few of them were practising contraception to prevent conceptions which are unplanned and unwanted. The study was mainly on female respondents who have at least been pregnant once; the 109 respondents were chosen from the schools registers. The method of analysis was by the use of frequency distribution and percentages on type of contraceptive and reproductive health information available to the respondents familiar with the method used to prevent unwanted pregnancy, source of information on family planning, attitude on sex before

marriage, age at first sex and use of contraceptives.

2.1.4 Socio-Economic Factors

Others scholars have written so much on socio-economic factors and adolescents. Such variables like parent's level of education, occupation , profession, income and other economic have been studied in other areas.

Mugwe (1989) established that most adolescents in Kirinyaga District whose families are falling within the low economic status tend to start engaging in sexual activities at an early age and do not use contraceptive measures. Nyaga (1989) argues that the mothers profession has more influence than the father's on adolescents use of contraception. Most professional parents have a

good income and are therefore in a position to give family life education to their children. He also noted that those whose parents have higher level of education and occupation, and reside in urban areas have access to family planning facilities than their rural counterparts.

In a study done among the sexually active, on contraceptive knowledge and use among In-school adolescents in Nigeria, it was found out that the methods the adolescents have ever used to avoid pregnancy; 15 % of the sexually active students reported having used condoms, 2 % abstinence, 2 % the pill and fewer than one 1 % injectable. Ever-use of condom also was more prevalent among students who have multiple partners. Smaller differences in condom use were found between urban and rural students (17 % and 11 % respectively). On students source of information about the consequences of sexual intercourse, the most frequent responses were radio (73 %); Television, film and or (68 %); mothers (61%) clinic personnel (60 %); peer (59 %) and fathers (58 %). Discussion, specifically about consequences of pregnancy most often were with mothers, teachers and school guidance counsellors.

Focus Group Discussions revealed that students learn from their reproductive biology classes in school that sexual intercourse can lead to pregnancy. Students said that instruction should include more information on the consequences of sexual intercourse and methods of contraception. They stressed that these information could lead to a decrease in adolescents pregnancy and therefore abortion (Amazigo, et al :31,32:1997).

In some rural parts of Africa, early adolescent pregnancy tends to be regarded as a blessing and increases the status of the girl. Pregnant adolescents are well supported by their families to help care for the baby. In urban setting however, the situation is very different as the baby is often born into squalor poverty and socio-economic chaos. Many adolescent students lack knowledge of

contraception or are unable to use it and thus become pregnant. Self abortion, legal abortion and illegal abortion are common and lead to tragic damage (Cynthia, 1995).

2.2 Conceptual Hypotheses

Cultural, social, economic and demographic backgrounds of the adolescents are likely to influence their knowledge, attitudes and practice of contraception.

i) Social background influences the adolescent students' knowledge, attitudes and practice of contraception.

ii) Cultural background influences adolescent students' knowledge, attitudes and practice of contraception.

iii) Economic background of the adolescent students influences their knowledge, attitudes and practice of contraception.

iv) Demographic background of the adolescent students influences their knowledge, attitude and practice of contraception.

To operationalise the conceptual hypotheses they have been broken down into measurable variables as given below; cultural variables include religion (specific denomination) desired family size, and family composition desired.

Social variables include education of parents, HIV/AIDS (diseases) and exposure to mass media. Economic variables included parents occupation and usual place of residence. Demographic variables include age, sex, number of children born to adolescents students own mother, adolescents students birth order.

The contraception variables which include knowledge and practise have been broken down as given below:- Knowledge variables are "numbers of methods known" and "number of methods whose actual application are known".

Attitudes are "numbers in favour" or "against". Practice variables are "ever use" and "current use". From these variables a model is produced from which the conceptual hypotheses are drawn. Conceptual model for the analysis of contraception knowledge, attitude and practice.

Fig.3 Conceptual Model

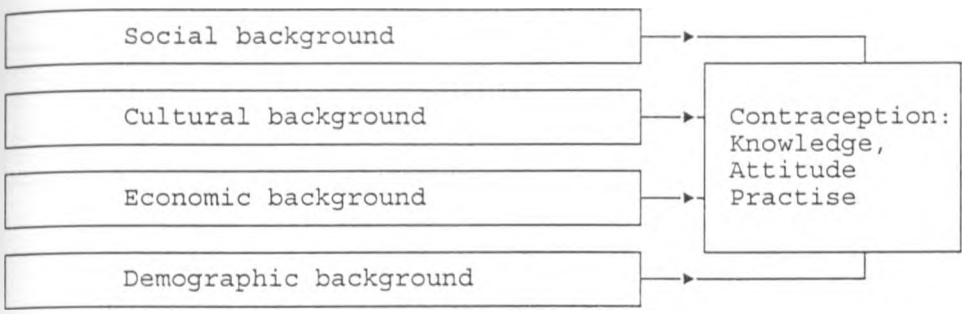
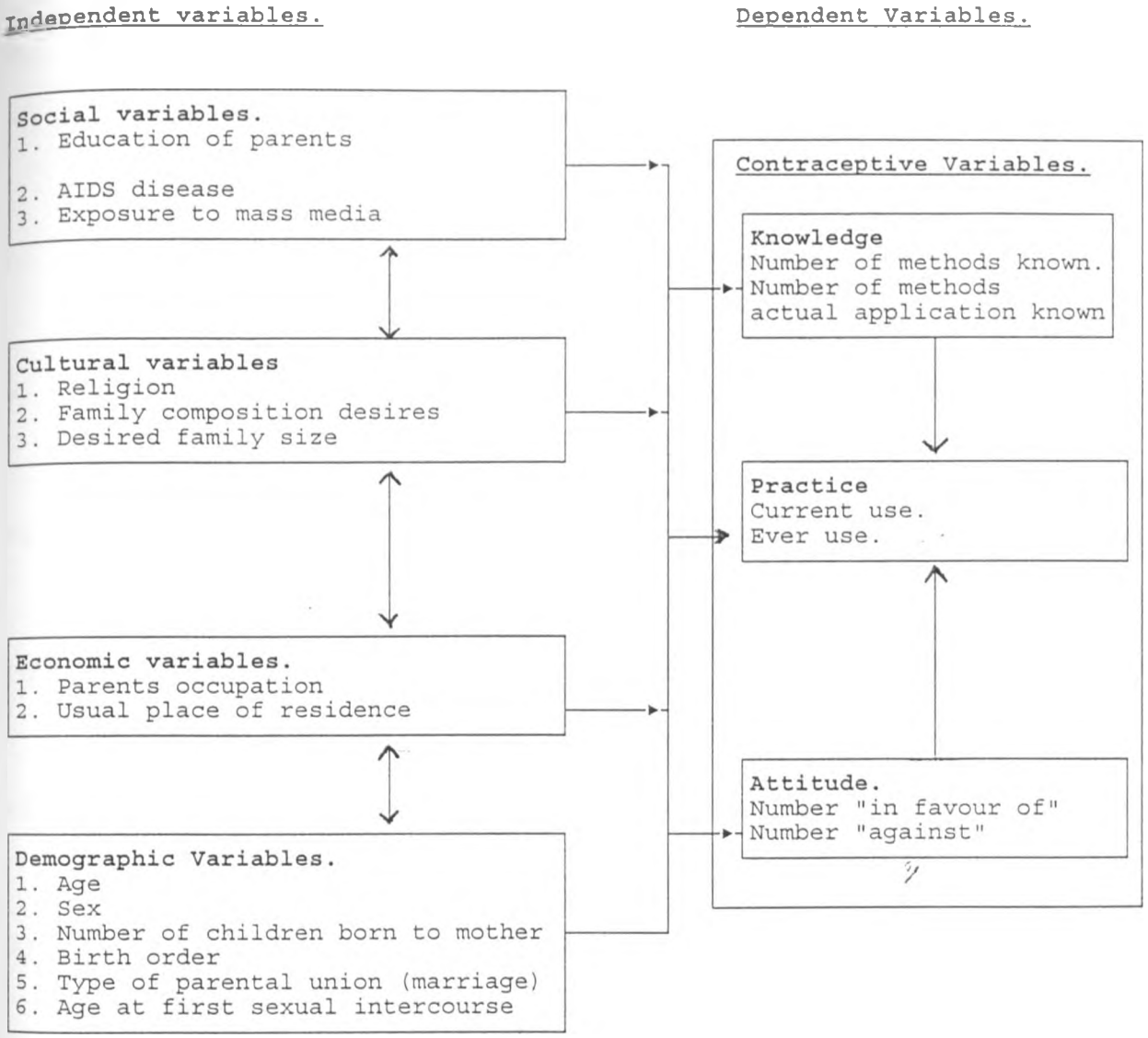


Fig.4 Operational model for the analysis of contraceptive knowledge, attitudes and practice.



2.2.1. Operational Hypothesis

i) Adolescents who experience first sexual intercourse at an early age are likely to be using contraceptives .

ii) Number of siblings has a positive influence on the student's use of contraceptives.

iii) The student's birth order has a negative influence on their use, attitude and knowledge of contraceptives.

iv) Parents education has a positive influence on the adolescent's use, attitude and knowledge of contraceptives.

v) HIV/AIDS pandemic has a positive influence on the adolescent student's knowledge, attitude and use of contraceptive.

vi) Exposure to mass media has a positive influence on the adolescent student's knowledge of contraceptives.

vii) Adolescents of protestant faith have a positive attitude and higher practise of contraceptives than those with other religious backgrounds.

viii) Parents occupation affects the number of contraceptives known and used by adolescent students.

ix) Parents usual place of residence affects adolescent's knowledge, attitude and use of contraceptive.

x) Type of parental union (marriage) affects adolescents knowledge,attitude and use towards contraceptives.

xi) Sex of the adolescents affects their knowledge, attitude and practise of contraception.

xii) Adolescents' age has a positive influence on their knowledge, attitudes and practice of contraception.

2.2.3 Definition of Concepts

Adolescence: It is the period of passing from childhood to adulthood. Though their is no universally accepted definition of adolescents, some African societies take adolescence to begin at puberty and end with marriage. Therefore the period mostly lies between age 10 to 20 years. For the purpose of this study adolescents aged between 14 to 20 are considered.

Knowledge: It is the adolescents awareness and knowledge on how contraceptive is used.

Attitude: It is the approval and disapproval of the adolescent students of the use of contraception.

Practice: This refers to whether the adolescents currently uses/ ever used contraceptives.

Desire Family Size: This is the number of children the adolescent student desires to have.

Educational Level: Refers to parents final educational level. Categorized as none, primary, secondary, post-secondary, others (i.e. adult education).

Type of Marriage: It refers to the type of parents marriage like monogamous, polygamous marriage or single.

Birth Order: Refers to whether the respondents was 1st born, 2nd born etc.

Occupation: What the parents do to earn a living, in this case it is categorised as office work, agricultural work, teaching, personal, business etc.

Contraception: It refers to the method used to prevent or delay conception.

Place of residence: It refers to the usual residence of the parents. It is categorised as rural or urban.

CHAPTER THREE

METHODOLOGY

3.1 Methods of Data Collection and Analysis

3.1.1 Study Population

Raw data collected for this study was limited to adolescent secondary school students in Kisumu District, aged between 14 to 20 by the use of self-administered questionnaires. The age bracket of 14 to 20 was chosen because most secondary school students fall within the age group and it is also assumed that this is the period within which the adolescents became more sexually active.

Statistics of the population were obtained from the results of 1989 Kenya population Census. A sample size of 400 students was drawn out of which 200 male and 200 female respondents were interviewed. The study focused on the adolescents' knowledge, attitudes and practice of contraception which is assumed to be very low in this region.

3.1.2 Sample Size and Sampling Procedure

For a reliable scientific study, it is important to have an appropriate sample size. Firstly, the sample size must give as precisely as possible, a picture of the population from which it is drawn. Secondly, the sample must be obtained by a probability process. This permits the use of statistical procedures from the sample and to relate it to the population from which it is obtained and which it is supposed to represent. The sample will be as small and economical as possible as regards time and expenses. 400 respondents out of about 103,953 secondary school

aged adolescents were interviewed which provided the data used to test the hypotheses for this study.

However the sampling techniques chosen for a given study must be suitable for the realisation and fulfilment of the objectives. In this study, the multi-stage sampling used was the most suitable statistical method.

Sampling was carried out in various stages of the population. The entire population was first divided into a number of clusters or primary units. In this case the primary units were the secondary schools divided into boys' schools, girls' schools and mixed schools, which were selected from the entire list of all the secondary schools in Kisumu District acquired from the Ministry of Education.

Each of these clusters were further divided into a number of units called secondary units, in this case the classes. The third stage was the sampling units, which were the respondents randomly selected using the class enrolment register. The multi-stage sampling method was appropriate for the study due to the fact that the cost of the survey was brought to reasonable bounds because of greater saving in operational costs, less training for the research assistants and less time spent.

3.1.3 Questionnaire Design and Data Collection

The questionnaire, designed for direct personal interview, was voluntarily and confidentially administered on adolescent students in Kisumu District. Both closed and open ended questions were used in the questionnaire which was divided into five sections. The

survey instrument were administered by trained research assistants not connected to the schools in the district and were perhaps less threatening to the students.

The first section of the questionnaire captured the respondents characteristics, that is age, sex, marital status, birth order, desired family size and desired family composition. Second section was mainly concerned with the family background. The information obtained here included the level of parents education, parents occupation, parents usual place of residence, religion and denomination.

The third section captured their knowledge of contraception. This was to know if they have heard about family planning , from which source have they heard about it and the type of family planning methods they have heard about.

The information about their attitude on contraception formed the fourth stage. This was to gauge whether they are in favour of or against contraception among themselves; whether it should be made available to teenagers and whether it can be introduced as a subject in school and the effect of HIV/AIDS on their attitude towards family planning.

The final section of the questionnaires was also used to capture their practice towards contraceptives by determining the age at which the adolescents start sexual life, number of sexual partners that they have, whether they have used contraceptives, at what age, whether they are currently using contraceptives, if they have made any changes in the types of methods used. They were also asked what prompted them to start using contraceptives and the sources. In this section we also sought their opinion on which group of people should convey the family planning message to the adolescents and the married couples. The sampling fraction was 1/3, whereby

girls' schools comprised 133 units, boys' schools 133, and mixed schools 134 (Made up of 67 boys and 67 girls).

The numbers of each school after being stratified as girls' schools, boys' schools and mixed schools were written on pieces of papers which corresponded with the number of each school as they appeared in the list of all secondary schools in Kisumu District. The numbers were put in a bowl and shaken. The first number picked indicated the first sample. The bowl was shaken again before the next number was picked. This process was repeated until the final school was selected.

The second stage involved the selection of the classes whereby the same procedure of giving each class a number and randomly selected was used and the list of all the classes in already selected schools formed the sample frame. The third stage was selecting the respondents from the chosen classes. The class enrolment register formed the sampling frame at this stage. But for the mixed schools the class register was used to stratify male and females before the final samples were randomly selected.

3.1.4 Sampling Method

The multi-stage sampling method was applied at each and every stage. In the first stage the sample frame was made up of all secondary schools in Kisumu District. The second stage was done by selecting classes within the sampled school, and finally the respondents in the classes selected.

This sampling procedure was suitable because secondary schools are situated in different places within Kisumu District. Though there is a large number of secondary schools in Kisumu

District, only 12 were surveyed this is because of the limited time and money available for the research.

Random sampling was done at each and every stage to provide "scientific democracy" in selecting respondents. Random sampling without replacement was used to ensure that each unit appeared only once in the sample. At the first stage, the schools were stratified into boys', girls' and mixed schools to enable us to capture both males and females in the final sample. Four schools in each stratum were selected.

Table 3.1.4.a **The names of the secondary schools selected in each category and the selected number of respondents**

Boys' Schools	No.of Student	Girls' Schools	No.of Student	Mixed schools	No.of student
Kisumu boys'	34	Migingo Girls'	34	Lions Sec.	34
Otieno Oyoo	33	Kisumu Girls'	33	Awasi Mixed	33
Ngere Boys'	33	Ahero Girls'	33	Lela Mixed	33
Chulaimbo	33	Rae Girls'	33	Muslim Mixed	34
Total	133	**Total**	133	**Total**	134

Source: Field Survey.

3.1.5 Methods of Data Analysis

To investigate the relationship between the variables, the statistical package of social science (SPSS) computer software is used to analyze data in the study. The frequency tables and percentages are first used, then cross tabulation. Cross tabulation is a joint frequency distribution of cases according to two or more classificatory variables. These joint frequency

distribution were statistically analyzed by the use of Chi-Square statistics to determine whether or not the variables were statistically independent.

The Cross Tabulation is used in this study to asses the relationship between two variables. That is the dependent and the independent variables. Only the statistically significant variables were considered in this case.

The Chi-Square test is used in this study to establish whether there is association between variables. It is a very general test that is used to test whether or not frequencies which have been empirically obtained differ significantly from those which would be expected under a certain set of theoretical assumption.

For the Chi-Square to be applied the following must be met ;

i) Experimental data must be independent of each other.

ii) Sample data be drawn from the largest population.

iii) Data be expressed in original units.

iv) There should be no less than five observations in any case of the cells.

Chi-Square formula is :

$$X^2 = \sum (O-E)^2/E$$

O = refers to observed frequency.

E = refers to the expected frequency

The expected value (E) is got by the following formula:

E = (Number of rows) (Number of Columns) /Total number.

This gives the expected value for each cell.

To use the Chi-Square, you must start by stating the assumption which include the null hypothesis. The null hypothesis can be stated in the form of there being no difference in the variables being tested or in the form of no relationship between the variables being tested.

You must set a significant level and a degree of freedom is obtained as follows:

df = (row - 1) (Column - 1).

After getting the degree of freedom, we compute the test using the X^2 formulae. If the calculated chi-square is greater than the one shown in the table, then we reject the null hypothesis. If the obtained chi-square is less than the one on the table then we fail to reject the null hypothesis. If you reject the null hypothesis then it means something non-random is happening and you conclude that there is a relationship between the variables tested. If you fail to reject the null hypothesis then there is no conclusive evidence of a relationship between the variables. However on the SPSS computer package used for the analysis of this work, if the calculated significant level of test is less than 0.05 or 0.01 the hypothesis that the two variables are independent is rejected and we conclude that there is a relationship between the variables in the sense that they are dependent. The closer the calculated significance level value is to zero the stronger the relationship between the variables.

Multiple regression is the next analytical tool used. The multi linear regression analyses the relationship between a dependent variable and a set of independent variables; in other words, it is a descriptive tool by which a linear dependence of one variable on others is summarised; it is an inferential tool by which the relationships in the population are evaluated from the examination of the sample data.

The model is most appropriate for this study because it measures the average relationship between two or more variables. So, with multiple regression models, more than one independent variable can be incorporated in the following equation;

$Y = bo + b1x1 + b2x2\text{----------}bkxk + e$

where;

Y= the dependent variable.

bo, b1--------bk are the regression co-efficient.

x1, x2--------xk are the independent variables.

e = the error term.

The correlation coefficient, R , is an important indicator. It shows the strength of the association between the variables under study and is in the continuous range from -1 to +1.

Values close to -1 indicate very high negative association or correlation exists while +1 indicates very high positive relationship. Very low values of 'R'(between +0.6 and -0.6) suggests a very low degree of correlation and if the value is equal to zero, then it indicates no correlation.

The value of R^2 (Correlation co-efficient squared) describes the proportion of variance in the dependent variable(s) that can be attributed to its linear regression(s) on the independent variable.

The inclusion of more variables into the regression model is an important phenomenon of the regression model and enables its wide application and adoptability to various research

situations. Due to this, it offers a fuller explanation of the independent variable(s).

Logistic regression is used in the next stage of analysis. Logistic regression model is the same as any other model-building technique such as linear or multiple regression. The idea is to find the best fitting model to describe the relationship between an outcome (dependant or response) variable and a set of independent (predictor or response) variable, often called covariates. The difference between logistic regression model is that the outcome variable (dependant) in logistic regression is binary or dichotomous. In other words logistic regression is used when the dependent variables are categorical and can not be analyzed using the multiple regression. Logistic regression was used to show the effects of independent variables on the two dependent variables , that is ' ever use of contraception' and ' currently using contraception'. In order to determine such variables stepwise procedure was uses (Akwara 1994).

CHAPTER FOUR

FREQUENCY DISTRIBUTION AND CROSS TABULATION

4.1 Frequency Distributions

4.1.1 Characteristics of the respondents

A total number of 400 respondents were covered in the survey out of which 200 were males and 200 were females (50 % males and 50 % females).The questionnaires used in the survey were carefully checked and edited for errors, to ensure completeness, consistency, accuracy and homogeneity. This was to make sure that the information given by the respondents were accurate and valid. Each of the variables were examined by the use of frequency tables as they appear in the tables below. The ages of the respondents varied from 14 to 20 years with the mean of 16.99 as it appears in the frequency table 4.1.1.a below:-

Table 4.1.1.a Percentage of respondents distribution by current age

Respondents age.	Frequency.	%
14	10	2.5
15	28	7.0
16	99	24.8
17	133	33.3
18	87	21.8
19	37	9.3
20	6	1.5
Total	400	100.00

Source: Field Survey.

Of the 400 respondents interviewed 394 were single, 3 were married and one reported to have divorced. The respondents report as per their order of births is as reflected in table 4.1.1.b below:

Table 4.1.1.b Percentage distribution of respondents according to their order of birth

Order	Frequency	%
1	101	25.3
2	77	19.3
3	73	18.3
4	51	12.8
5	41	10.3
6	20	5.0
7	12	3.0
8	8	2.0
9	3	0.3
10	3	0.3
None response.	11	2.8
Total	400	100.00

Source: Field Survey.

The majority of the respondents were mainly from the first to the fifth order as this formed 86 % of the total respondents. First born and second born who formed a bigger proportion were 25.3 % and 19.3 % respectively.

The interviewees response on their desired family size and family composition desired was as it appears in table 4.1.1.c below:-

Table 4.1.1.c Percentage distribution of respondents according to their desired family size

No. of children.	Frequency	%
0	2	0.6
1	4	1.0
2	97	24.3
3	122	30.5
4	22	5.5
5	70	17.5
6	19	4.8
More than 6	15	3.8
Non response	49	12.3
Total	400	100.00

Source: Field Survey.

About 43 % desire a small family of less than four, 40.8 % desire 4 to 6 and those who want many children constitute 3.8 %, which is very low. Therefore the mean number of children desired by the adolescents interviewed is 3.62, meaning that there is a likelihood of the respondents practising family planning once they start having children. Though this will also depend on the communication with their partners and the availability of contraception.

It is clearly seen from table 4.1.1.d below that majority of the respondents desire, at most, two boys and two girls. The mean number of male and female children desired are 1.90 and 1.87 respectively. It may follow, therefore, that if a male or a female child, but more specifically, a male child is not forthcoming, then the desired family size may be ignored and family planning may not have an impact in such a situation. This is an indication that adolescents are still attached to the cultural believe that one must have at least a baby boy to continue the family lineage.

Table 4.1.1.d Percentage distribution of respondents by desired family composition

No. of children	Male Freq.	%	Female Freq.	%
0	0	0	1	0.3
1	124	31.0	168	42.0
2	188	47.0	150	37.5
3	39	9.8	30	7.5
4	14	3.5	11	2.8
5	3	0.8	4	1.0
Many as possible.	2	0.5	9	2.2
Non response	30	7.5	27	6.8
Total	400	100.00	400	100.00

Source: Field Survey.

4.2.2 Family Background

In this section the level of parents' education, parents' occupation, the type of marital union, the number of children in the respondents family, parents' usual place of residence, the type of religion and denomination and how often they attend church services were examined, because these are very necessary and play an important role in the life of adolescents.

Tables 4.2.2.a and 4.2.2.b below show a high level of primary schooling among mothers, 123 (30.8 %) than fathers 72 (18.0 %). The level of secondary and post secondary is 301 (75 %) for fathers and 244 (61%) for mothers respectively. Parents education is important because it facilitates the contraceptive communication between them and the adolescents, especially mothers. It is expected therefore that adolescents whose mothers went beyond primary school have more knowledge, high attitude and practise of contraception than those whose parents have low education.

Table 4.2.2.a Percentage distribution of respondents by fathers' level of education

level	Frequency	%
Non schooling	20	5.0
Primary	72	18.0
Secondary	142	35.5
College/University	159	39.8
Non response	7	1.8
Total	400	100.00

Source:Field Survey.

Table 4.2.2.b Percentage distribution of Respondents by mother's level of Education

level	Frequency	%
Non schooling	26	6.5
Primary	123	30.8
Secondary	153	38.3
College/University	91	22.8
Non response	7	1.8
Total	400	100.00

Source: Field Survey.

From the tables 4.2.2.c and 4.2.2.d below, it can be seen that a large proportion of respondents had mothers (44.5 %) who were involved in agricultural activities compared to their fathers (34.3 %). While more respondents had fathers (39.8 %) who were working as office workers as compared to only 25.8 % of respondents mothers. 13.8 % of respondents fathers and 16.8 % of respondents mothers were teachers. This is related to the level of education and the place of residence, all of which have a great effect on the adolescents' knowledge, attitudes and practice of contraception.

Table 4.2.2.c Percentage distribution of respondents according to the fathers' occupation

Occupation	Frequency	%
Unemployed	0	0
Office work(clerical/management)	107	26.8
Office work (supporting staff)	52	13.0
Agricultural work	136	34.0
Teaching	55	13.8
Non response	50	12.5
Total	400	100.00

Source:Field Survey.

Table 4.2.2.d Percentage distribution of respondents according to the mothers' occupation

Occupation	Frequency	%
Unemployed	0	0
Office work(clerical/management)	50	12.5
Office work (supporting staff)	53	13.3
Agricultural work	178	44.5
Teaching	67	16.8
Non response	52	13.0
Total	400	100.00

Source: Field Survey.

On parental union, the majority of the adolescents reported that monogamy was the main one among their parents (67.3 %) followed by polygamy (28.3 %) and then the single parent family (4.3 %). In polygamous families, the difficulty of child up-bringing may not be effectively felt due to the collective responsibility that exists. With monogamy, the situation is the opposite in that child upbringing is solely the responsibility of the parents and it is very heavy. The burden is even more to the single mothers who have to raise their children singly.

This, therefore, means that the parental marital union of the adolescents' parents has a role to play on their knowledge, attitudes and practise of contraception.

Table 4.2.2.e below shows that the modal number of children per mother is 6 (21.5%), with the mean number of 5.93 children per mother. The number of children born to adolescents' own mothers may have some influence on their views and behaviour on family planning for it influences the desired family size of the adolescents.

Table 4.2.2.e **Percentage distribution of respondents according to the number of children born to own mothers**

Number of children to own mother.	Frequency	%
1	1	0.3
2	13	3.3
3	27	9.3
4	59	14.8
5	58	14.5
6	86	21.5
7	47	11.8
8	46	11.5
9	18	4.5
10	15	3.8
11	8	2.0
12	4	1.0
Non response.	8	2.0
Total	400	100.0

Source: Field Survey.

In most cases the place of residence of the parents is usually the residence of the adolescents. This has an influence on their knowledge, attitudes and practice of contraception. Those who reside in urban areas are more likely to accept and use contraceptives than their rural counterparts. Out of the respondents interviewed, 50 percent had their parents residing in the

rural areas and 50 percent in the urban areas.

Religion too plays an important role towards one's attitude towards contraception. For instance, the Roman Catholic Church is known to advocate against the use of modern family planning methods, preferring the natural methods like rhythm, abstinence and douche which are very ineffective. The situation is otherwise for the Protestants and the Muslims.

In this study, 56 % were Protestants , 36 % were Catholics, those in other religions like Hindu and Sikh formed 4.5 % and Muslims were 3.5%. Though the effectiveness of religion (denomination) on the adolescents' knowledge, attitudes and practise of contraception depends on the respondents service attendance; it is through this that the teachings may have an influence on the respondents. Accordingly, 79.8 % attend church service more than three times a month .

4.2.3 Contraceptive Knowledge

It was important to know whether the adolescents have heard about contraceptives and if they were aware of the family planning methods. To capture the adolescents' awareness of the existing various contraceptive methods, they were provided with a list in which they could choose one or more methods that they were aware of and the methods they knew how to use.

Modern methods of contraceptives are well known by the adolescents in the District under review. The most familiar method to more than a half of the respondents were condoms (93.5 %), pills (80.3 %) and injection (59.8 %) respectively. Norplant is, relatively, a new method among the adolescents and that is why it is the least known as if is shown in table 4.2.3.a below.

Table 4.2.3.a **Percentage distribution of respondents who are knowledgable about specific methods**

Methods	Frequency	Percentages
Pill	321	80.3
IUD	117	29.3
Rhythm	40	10.0
Vasectomy	97	24.3
Cups and Pads	53	13.3
Diaphragm	74	18.5
Foams/Jellies	50	12.5
Withdrawal	86	21.5
Norplant	33	8.3
TL(Tubal Ligation)	86	21.5
Injection	239	59.8
Abstinence	60	15.0
Condoms	374	93.5
Breast-feeding	64	16.0

Source: Field Survey.

The only traditional methods that the adolescents are knowledgable about their application are withdrawal and abstinence as shown in the table below. But for the modern methods, the condoms and the pill are still the best known and fairly used methods.

It was also necessary to determine the number of methods known and the number of the methods about which the actual application is known by the respondents. It appears in the table above that pill (39 %) followed by condoms (19.0 %) are the methods of contraception that the adolescents are fairly aware on how they are used. While application of cups and pads, and Norplant are least known.

Table 4.2.3.b **Percentage distribution of respondents knowledge on the application of specific methods**

Methods	Frequency	Percentages
Pill	156	39.0
IUD	30	7.5
Rhythm	18	4.5
Vasectomy	23	5.8
Cups and Pads	5	1.3
Diaphragm	12	3.0
Foams/Jellies	11	2.8
Withdrawal	32	8.0
Norplant	5	1.8
TL(Tubal Ligation)	15	3.8
Injection	30	7.5
Abstinence	23	5.8
Condoms	76	19.0
Breast-feeding.	19	4.8

Source: Field Survey.

Most of the adolescents knew three to four methods of contraception as shown in table 4.2.3.c below. But the number of contraceptives whose application were known among the adolescents is very low as indicated in table 4.2.3.d below. This is because about 55 %, being the highest, reported that they only know how one method of contraceptive is used. And only 18 % knew only how two methods of contraceptives are used. This is an indication that practise of contraception among adolescents is still very low.

Table 4.2.3.c **Percentage distribution of respondents by number of methods known**

No. of methods	Frequency	%
0	1	0.3
1	18	4.5
2	79	19.8
3	91	22.8
4	65	16.3
5	45	11.3
6	34	8.5
7	33	8.3
8	17	4.3
9	6	1.5
10	4	1.0
11	6	1.5
12	1	0.3
Total	400	100.0

Source: Field Survey.

Table 4.2.3.d **Percentage distribution of respondents by the number of methods they know the actual application of**

No. of methods	Frequency	%
0	18	4.5
1	219	54.8
2	72	18.0
3	58	14.5
4	13	3.3
5	9	2.3
6	1	0.3
7	4	1.0
8	3	0.8
9	1	0.3
10	0	0.0
11	1	0.3
12	1	0.3
Total	400	100.0

Source: Field Survey.

Use of contraceptives was very low among the adolescents interviewed. 23.5% of them were using (had used) a method of contraception at the time of the study. Though this is very low compared to the 1989 KDHS which was 27 %.

Table 4.2.3.e below shows the sources of family planning information among which they were expected to choose more than one.

Table 4.2.3.e Percentage of distribution of respondents according to source of information on family planning methods

Source	Frequency	%
Film	126	31.5
Friends	192	48.0
Relatives	141	35.3
Church	97	24.3
National Leaders	95	23.8
Teachers	130	32.5
Newspapers	292	73.0
Radio	354	88.5
Books/Pamphlets	261	65.3
Television	234	58.5
Others	1	1.5

*Others includes medical officers.
Source:Field Survey.

The main sources of information on contraceptive methods for the adolescents were Radio (88.5%), Newspapers (73.0 %) and Books/Pamphlets (65.3 %). While Radio (55.8 %) and Books/Pamphlets (13.8 %) respectively were the most frequent source of family planning methods as shown in the table below. It is important therefore that these the media should be exploited to reach a higher number of adolescents. It is also important to note that Radio (55.8%) was the most frequent source of family planning methods as it appears in table 4.2.3.f below.

Table 4.2.3.f **Percentage distribution of respondents according to the most frequent source of information on family planning**

Source	Frequency	%
Film	4	1.0
Friends	12	3.0
Relatives	9	2.3
Church	7	1.8
National Leaders	5	1.3
Teachers	7	1.8
Newspapers	31	7.8
Radio	223	55.8
Books/Pamphlets	55	13.8
Television	10	9.5
None response	8	1.5
Total	400	100.0

Source:Field Survey.

4.2.4 Adolescents Attitude on Contraception

The attitude towards contraception of the adolescents interviewed are shown in the following table 4.2.4.a.

Table 4.2.4.a. The percentage distribution of the respondents attitude towards contraception

Attitude	Frequency	%
In favour of	306	77.5
Against	37	9.3
Very much against	15	3.8
Neutral	38	9.5
None Response	4	1.0
Total	400	100.0

Source: Field Survey.

Over 77 % indicated that they are in favour of family planning methods with only 13 % against. Only 7 % were indifferent with a none response of 2.9% . Most adolescents were in favour of family planning methods mainly because of the following reasons in table 4.2.4.b below.

Table 4.2.4.b Percentage distribution of respondents by reasons for being in favour of contraceptives

Reason	Frequency	%
To educate children	195	48.8
To afford children's demand	205	50.5
Mothers health(family welfare)	79	19.8
Land problems(unemployment)	109	27.3
National welfare	46	11.5
Fruitful future	114	28.5
Reduce over population	175	43.5
High cost of living	120	30.0

Source: Field Survey.

Adolescents, therefore, view family planning as a means of improving their social, cultural and economic wellbeing as well as for the national development by reduction of unemployment, improvement of infrastructure and reduction of overpopulation. The respondents who were against the use of contraceptives were few (13 %) and their main reasons were that contraceptives may render couples unable to get children and that they are dangerous to women's health.

On the issue of whether contraceptives should be made available to teenagers, more than half of those interviewed (58 %) felt that it was okay to provide adolescents with contraceptives. Only 40.8 % were not for the idea. The adolescents interviewed also indicated the age at which they felt contraceptives should be made available to the teenagers.

The distribution in table 4.2.3.c below shows that the age at which the biggest proportion (44.3 %) of teenagers thought that family planning methods should be made available was 18 years, though 25.0 % were of the opinion that conception is likely even as early as age 13 and hence contraception should be availed to teenagers as early as 13 years of age.

Table 4.2.4.c Distribution of respondents according to age at which contraceptives should be made available to teenagers

Age (Year)	No. of respondents	%
Under 13	1	0.3
13+	100	25.0
18+	177	44.3
20+	102	25.5
Total	400	100.0

Source: Field Survey.

74.5 % were also of the opinion that family planning should be introduced in the school curriculum as a subject, with only 13.3 % being against it. However, 11.3 % remained indifferent. The respondents were asked to indicate how many more children they would like to have supposing the first born was a girl or a boy. The response were as shown in table 4.2.4.d below:-

Table 4.2.4.d **Percentage distribution adolescents' desire for more children, according to sex of the first born**

No. of children desired.	First born boy		First born girl	
	Freq.	%	Freq.	%
0	4	1.0	4	1.0
1	115	28.9	127	31.8
2	100	25.0	86	21.5
3	119	29.8	104	26.0
4	31	7.8	30	7.5
5	8	2.0	11	2.8
6	2	0.5	2	0.5
Many as possible.	6	1.5	6	1.5
None Resp.	15	3.8	30	7.5
Total	400	100.0	400	100.0

Source: Field Survey.

It is very clear from table 4.2.4.d above that if the first born is a boy, the respondents are most likely to desire 3 more children. Whereas in the case of a girl, the respondents were more likely to desire more than 3 children. The sex of the first born therefore influences the desired number of the next ones. This is mainly guided by the cultural values attached to boys.

On the issue of HIV/AIDS nearly all the respondents (97.3 %) have heard about it, only 2.7 % seem to be ignorant about the pandemic. Equally a high number of 61.8 % and 76.5 % reported to have heard of those who have or was reported to have died of HIV/AIDS respectively. Concerning their attitudes towards contraceptives, especially condoms and abstinence during this era of HIV/AIDS, 54.8 % of the respondents indicated that they were in favour of contraceptives; 28.5 % indicated that they were against contraceptives and 11.8 % were indifferent with a non response of 5.0 %.

This, therefore, means that the outcry of HIV/AIDS pandemic has an influence on the adolescents' attitudes and practise towards contraceptives, specifically condoms, and this may also have some effect on adolescents fertility.

Table 4.2.4.e below shows respondents attitude towards contraceptives and the effect of HIV/AIDS. More than half of the respondents were in favour of contraceptive use especially condoms.

Table 4.2.4.e Percentage distribution of effects of HIV/AIDS outcry on the respondents attitude towards contraception

Effect	Frequency	%
In favour of	219	54.8
Against	114	28.5
No effect	47	11.8
Non response	20	5.0
Total	400.	100.0

Source: Field Survey.

4.2.5 Adolescents practise of contraception

To gauge the adolescents use of contraception it was necessary to capture their opinion on the age at which Kenyan adolescents start sexual life and the age at which they start experiencing sexual intercourse. They were first asked the age at which they thought Kenyans generally have first sexual intercourse, their specific age and when they first had an affair.

Table 4.2.5.a **Percentage distribution of the respondents according to age at which they think kenyan teenagers start experiencing sexual intercourse**

Age	Male		Female	
	Freq.	%	Freq.	%
8	1	0.3	1	0.3
9	3	0.8	24	6.0
10	11	2.8	37	9.3
11	1	0.3	8	2.0
12	38	9.5	80	20.0
13	67	16.8	74	18.5
14	69	17.3	59	14.8
15	93	23.3	32	8.0
16	42	10.5	20	5.0
17	11	2.8	12	3.0
18	27	6.8	24	6.0
19	4	1.0	2	0.5
20	16	4.0	10	2.5
20+	4	1.0	2	0.5
None resp.	13	3.3	15	3.8
Total	400	100.0	400	100.0

Source: Field Survey.

The biggest proportion of respondents (23.3 %) believe that most Kenya males start sexual intercourse at age 15 and females at age 12 , with the mean ages of 14.69 and 13.39 for male and female respectively. The modal age at first sexual experience for adolescents is 15 as shown in table 4.2.5.b below, with a mean of 15.10. This means that they start sexual intercourse at early ages; 224 (56 %) reported that they have had sexual intercourse with their partners as at the time of the study. It was also found that the majority of the respondents had at least one sexual partner at the time of the study as shown in the table 4.2.5.c below.

Table 4.2.5.b **Percentage distribution of respondents according to age at first sexual intercourse experience**

Age	Freq.	%
7	4	1.0
10	7	1.8
11	3	0.8
12	5	1.3
13	17	4.3
14	32	8.0
15	90	22.5
16	67	16.8
17	33	8.3
18	12	3.0
19	5	1.3
Non resp.	125	31.3
Total	400	100.0

Source: Field Survey.

Table 4.2.5.c **Percentage distribution of respondents according to the number of sexual partners**

No. of partners	Frequency	%
0	63	15.8
1	144	36.0
2	61	15.3
3	21	5.3
4	9	2.3
5+	25	6.5
None response	77	19.3
Total	400	100.0

Source: Field Survey.

Only 23.5 % reported that they had ever used a contraceptive, while 75.8 % had never used contraceptives. This clearly shows that contraceptive use among adolescents is still very low.

The rating of the methods ever used and those currently using is shown in table 4.2.5.d below;-

Table 4.2.5.d **Percentage distribution of respondents according to 'ever use' and 'current use' of contraceptives**

Method	Ever users	Current users
Pill	2.3	2.8
IUD	0.3	0.5
Rhythm	0.3	0.3
Diaphragm	0.8	0.3
Foams/Jellies	0.3	0.5
Withdrawal	1.8	0.5
Injection	0.8	0.8
Abstinence	1.0	0.8
Condoms	19.0	17.5
None response.	74.4	76.0
Total	100.0	100.0

Source: Field Survey.

The leading method of contraception used among adolescents is condoms (19.0 %) followed by pill (2.3 %). When asked what prompted them to start using contraceptives the reasons were mainly fear of sexually transmitted diseases including HIV/AIDS, fear of getting pregnant or impregnating their partners.

Most of the respondents who use contraceptives reported that they mainly obtain them from Shops/Pharmacy/Chemists because they are within reach and the prices are affordable. This was followed by government clinics because they are freely provided.

Table 4.2.5.e Percentage distribution of the respondents according to where they obtain contraceptives

Source of supply	Frequency	%
Shop/Pharmacy/Chemists.	55	13.8
Government clinics	41	10.3
Private Clinics	19	4.8
Community Based Distributors.	6	1.5
None response.	279	69.7
Total	400	100.0

Source: Field Survey.

Table 4.2.5.f Percentage distribution of respondents according to reasons for use of contraceptives

	Frequency	%
Fear of pregnancy/impregnating partner	33	8.5
Fear of S.T.D. and HIV/AIDS	78	19.5
None response	289	72.3
Total	400	100.0

Source: Field Survey.

The respondents were asked to indicate which group of people should convey family planning message to the adolescents. It is clear from the table below that the adolescents are of the opinion that the most appropriate group to convey the family planning message to them

are mainly Medical/Health officers (70.0 %) followed by teachers (66.8 %) and parents (60.0%) .

Table 4.2.5.g Percentage distribution of the respondents according to groups of people most appropriate to convey family planning message to the adolescents

Group	Percentage
Parents	60.0
Church Leaders	28.5
Teachers	66.8
Adult Educators	36.3
Community Worker	16.3
Health/Medical officer	70.0
Friends	36.0
Local administration officers	14.5

Source: Field Survey.

4.3 Cross-Tabulation and Chi-Square Test

Below are the Chi-Square and Cross Tabulation results obtained using SPSS computer package for some of the dependent and independent variable that were found to be significantly related.

From table 4.3.1.a below, it is clear that a large proportion (55.3 %) of adolescents in the age group between 14 to 15 knew between 1 to 3 methods of contraceptives, while those who knew between 4 to 6, and 7 or more number of methods formed 31.3 and 13.2 % respectively. Those whose ages fall between 16 to 17 years and between 18 to 20 years who knew 4 to 6 methods of contraception were 38.1 % and 33.8 % respectively. Among those whose ages fall between 16 to 17 years who knew of 7 or more methods were 12.1 % while

26.2% of those who falls within 18 to 20 years age bracket knew of 7 or more methods of contraception.

Table 4.3.1.a Number of methods known by the age of the respondent.

Number of methods known.	Age of the respondents.			Total
	14 - 15	16 - 17	18 - 20	
0 - 3	(21) 55.3	(115) 49.8	(52) 40.0	(188) 47.1
4 - 6	(12) 31.6	(88) 38.1	(44) 33.8	(44) 33.8
7 - 12	(5) 13.2	(28) 12.1	(34) 26.2	(35) 26.2
Total	(38) 100.0	(231) 100.0	(130) 100.0	(399) 100.0

Chi-Square value = 6.381, D.F. = 4, level of significance = 0.01118, $\alpha = 0.05$.
Source:Field Survey.

H0 : There is no relationship between the number of methods known and the age of the respondents.

H1 : There is a significant relationship between the number of methods known and the age of the respondents.

With the chi-square value of 0.01118 , the null hypothesis is rejected at 0.05 level of significance and the alternative hypothesis is accepted. This, therefore, means that there is a significant relationship between the number of methods known and the age of the respondents.

From table 4.3.1.b below, the male adolescents who knew 0 to 3 method of contraception were slightly more than half (50.8 %), while 43.5 % of the female adolescents knew between 0 to 3 methods of contraception. For those who knew 4 to 6 methods of contraceptives, 43.5 % were of the females and 28.6 % of the males. Finally 20.6 % of the males knew 7 or more methods, while 13.0 % of the females knew of 7 or more methods of contraceptives.

Table 4.3.1.b Number of methods known by sex of the respondents

Number of methods known.	Sex of the respondents.		Total
	Male	Female	
0-3	(101) 50.8	(87)43.5	(188) 47.1
4 -6	(57)28.6	(87)43.5	(144) 36.1
7 -12	(41)20.6	(26)13.0	(67) 16.8
Total	(199) 100.0	(200)100.0	(399) 100.0

Chi-Square value = 33.416, D.F. = 2, level of significance = 0.00487, α = 0.05.

Source: Field Survey.

Ho : There is no association between the number of methods known and the sex of the respondents.

H1 : There is a significant association between the number of methods known and the sex of the respondent.

With the significance value of 0.00487, the null hypothesis is rejected at 0.01 level of significance and the alternative hypothesis is accepted. Therefore there is a significant association between the number of methods known and the sex of the respondents.

Table 4.3.1.c below shows that most of the adolescents whose mother's level of education were from secondary school and above are leading in the number of methods known in each category.

Table 4.3.1.c Number of methods known by mother's level of education

Number of methods known.	Mother's level of education.		Total
	None/primary.	Sec/Univ/college	
0 - 3	(82) 55.4	(104) 42.6	(186) 47.4
4 - 6	(45) 30.4	(95) 38.9	(140) 35.7
7 - 12	(21) 14.2	(45) 18.4	(66) 16.8
Total	(148) 100.0	(244) 100.0	(392) 100.0

Chi-Square value = 24.918, D.F.=2, level of sig.= 0.04884, α = 0.05.
Source:Field Survey.

Ho : There is no association between the number of methods known and mother's level of education of the respondents.

H1 : There is a significant relationship between the number of methods known and mother's level of education of the respondents.

With the significance value of 0.04884, the null hypothesis is rejected at 0.05 level of significance and alternative hypothesis accepted. This therefore shows that there is a significant

relationship between the number of methods known and adolescents' mother's level of education.

Other independent variables were found not to be significant with the dependent variable, number of methods known by the respondent, as shown in table 4.3.1.d below.

Table 4.3.1.d **Summary of variables found not significantly associated with the dependent variable 'number of methods known'**

Variable	level of sig	d.f.	α
Birth order	0.91092	6	0.05
Number of children per mother	0.98761	4	0.05
Parental marital union	0.98754	4	0.05
Parents residential place	0.90024	2	0.05
Denomination	0.50283	6	0.05
Father's occupation	0.39459	6	0.05
Mother's occupation	0.07832	6	0.05
Effect of HIV/AIDS	0.93435	4	0.05
Desired family size	0.76528	4	0.05
Desired male children	0.15694	4	0.05
Desired female children	0.11225	4	0.05
Fathers level of education	0.18991	2	0.05
Age at first sexual intercourse	0.59743	4	0.05

* Note that the number of methods known by mother's occupation were significant at 0.1 level of significance.
Source:Field Survey.

4.3.2 Number of methods whose application are known against selected individual variables

Table 4.3.2.a below shows that the majority of the adolescents who knew the application of 0 to 3 methods of contraceptives were those whose mothers are engaged in agricultural activities. It is further shown that most of those who knew the application of 4 or more methods were those whose mothers were working as office managers.

Table 4.3.2.a **Number of methods whose application are known by the adolescents' mothers occupation**

Number of methods known.	Mother's occupation.				Total
	Office managerial	Office support	Agric. work	Teaching	
0-1	(28) 56.0	(29) 54.7	(109) 61.2	(34) 50.7	(200) 57.5
2-3	(11) 22.0	(20) 37.7	(58) 32.6	(27) 40.3	(116) 33.3
4+	(11) 22.0	(4) 7.5	(11) 6.2	(6) 9.0	(32) 9.2
Total	(50) 100.0	(53) 100.0	(178) 100.0	(67) 100.0	(348) 100.0

Chi-Square value = 4.598, D.F.=6, Level of sig. = 0.05, Chi-square value 0.01926.
Source:Field Survey.

Ho : There is no association between the number of methods whose application are known and the mother's occupation.

H1 : There is a significant relationship between the number of methods whose application are known and mother's occupation.

At the significance value of 0.01926 of the chi-square test, we reject the null hypothesis at 0.05 level of significance and accept the alternative hypothesis. Therefore, there is an association between the number of methods whose applications are known and the adolescents' mothers occupation.

Table 4.3.2.b below shows that 58 % of those who desire one female child knew of, at most, the application of one method of contraception. While 53.3 % of those who desire two female children knew of the application of only one method of contraception. slightly over 72 % of those who desire 3 or more female children knew of the application of only one method

of contraception. 12 % of those who desire 2 female children knew of 4 or more methods of contraception. While 1.9 % of those who desire 3 or more female children knew of 4 or more methods of contraception.

Table 4.3.2.b **Number of method whose application are known by adolescents desired female children**

Number of methods usage known.	Desired female children.			Total
	0-1	2	3+	
0-1	(98) 58.0	(80) 53.3	(39) 72.2	(217) 58.2
2-3	(60) 35.5	(52) 34.7	(14) 25.9	(126) 33.8
4+	(11) 6.5	(18) 12.0	(1) 1.9	(30) 8.0
Total	(169) 100.0	(150) 100.0	(54) 100.0	(373) 100.0

Chi-square value= 4.343, D.F. = 4, level of sig. = 0.05, chi-square value 0.04784.
Source:Field Survey.

Ho: There is no relationship between the number of methods whose application are known and the desired family size.

H1: There is a significant relationship between the number of methods whose application are known and the desired family size.

With the chi-square value of 0.04784, we reject the null hypothesis at 0.05 level of significant and accept the alternative hypothesis. This means that there is a significant association between the number of method usage known and the desired female children.

Table. 4.3.2.c **Summary of variable found not significantly associated with the number of methods whose application are known**

Variable	level of Sig.	D.F.	α
Age	0.60502	4	0.05
Sex	0.09874	2	0.05
Birth order.	0.31062	6	0.05
Number of children per mother	0.16641	4	0.05
Parental marital union	0.23939	4	0.05
Parents place of resident	0.05889	2	0.05
Denomination.	0.49570	6	0.05
Father's occupation.	0.57447	6	0.05
Effect of HIV/AIDS.	0.06949	4	0.05
Desired family Size.	0.30963	4	0.05
Desired male children	0.41577	4	0.05
Father's level of education.	0.82715	2	0.05
Mother's level of education.	0.08377	2	0.05
Age at first sexual intercourse	0.95764	4	0.05

*Note that the respondents sex, parents place of residence, effect of HIV/AIDS and mother's level of education are significant at 0.1 level of significance.
Source:Field Survey.

4.3.3 Adolescents attitude towards contraception by selected individual variables

In table 4.3.3.a below it is seen that, majority (57.6 %) of the respondents, including those who are against contraceptive use, are in favour especially of the use of condoms due to the effect of HIV/AIDS.

Table 4.3.3.a **Attitude towards contraception by the effect of HIV/AIDS pandemic**

Attitude towards contraception	Effect of HIV/AIDS.			Total
	In favour	Against	No effect	
In favour	(19) 8.7	(14) 12.3	(7) 14.9	(40) 10.5
Against	(18) 8.2	(29) 25.4	(2) 4.3	(49) 10.5
Neutral	(182) 83.1	(71) 62.3	(38) 80.9	(291) 76.6
Total	(219) 100.0	(114)100.0	(47) 100.0	(380) 100

Chi-Square value = 4.947, D.f. = 4, level of sig. = 0.00002, α= 0.001.

Ho : There is no relationship between the adolescents attitude towards contraception and effect on HIV/AIDS outcry.

H1 : There is a significant relationship between the adolescents attitude towards contraception and effect on HIV/AIDS outcry.

Since the chi-square value of 0.00002 falls within the rejection region at 0.001 level of significant, the null hypothesis is rejected and alternative hypothesis accepted. This, therefore, means that there is a strong association between the adolescent's attitude towards contraception and the effect on HIV/AIDS outcry.

Table 4.3.3.b below shows that most of the adolescents who desire four or less children have a neutral attitude towards contraception.

Table 4.3.3.b Attitude towards contraception and desired family size

Attitude towards contraception	Desired family size.			Total
	0-2	3-4	5+	
In favour	(13) 12.6	(20) 10.4	(6) 10.7	(39) 11.1
against	(8) 7.8	(21) 10.9	(14) 25.0	(43) 12.3
Neutral	(82) 79.6	(151) 78.6	(36) 64.3	(269) 76.6
Total	(103) 100.0	(192) 100.0	(56) 100.0	(351) 100.0

Chi-square value = 6.222, D.f. = 4, level of sig.= 0.02625, α = 0.05.
Source:Field Survey.

Ho : There is no association between the attitude towards contraception and the desired family size of adolescent.

H1 : There is a significant association between the attitude towards contraception and the desired family size of adolescent.

The significant value of 0.02625 falls within the rejection region at 0.05 level of significance. We therefore reject the null hypothesis and accept the alternative hypothesis. This means that a significant relationship exist between the their attitude towards contraception and their desired family size.

Table 4.3.3.c below, it is noted that most of the adolescents (82.1 %) who started sexual intercourse between age 15 to 17 holds a neutral attitude towards contraception. Nearly 15 % of those who started sexual intercourse between age 10 to 14 were in favour of contraception. While 6.8 % and 5.9 % of those who started sexual intercourse between ages 15 to 17 and between 18 to 20 were in favour of contraception.

Table. 4.3.3.c Attitude towards contraception by specific age at first sexual intercourse

Attitude towards contraception	Specific age at first sexual intercourse.			Total
	10-14	15-17	18+	
In favour	(10) 14.7	(13) 6.8	(1) 5.9	(34) 8.7
Against	(7) 10.9	(21) 11.1	(6) 35.3	(34) 12.4
Neutral	(51) 75.0	(156) 82.1	(10) 58.8	(217) 78.9
Total	(68) 100.0	(190) 100.0	(17) 100.0	(275) 100.0

Chi-square value 1.484, D.f. 4 , significance value 0.01288, significance limit = 0.05.
Source:Field Survey.

Ho : There is no association between the adolescents attitude towards contraception and age at which they had their first sexual intercourse.

H1 : There is a significant association between the adolescents attitude towards contraception and age at which they had their first sexual intercourse.

The null hypothesis is rejected at 0.05 significance limit because the significance value of 0.01288 is less than the significance limit. The alternative is therefore accepted meaning that their is a significant association between the adolescents attitude towards contraception and their age at first sexual intercourse.

Table 4.3.3.d Summary of variables found not significantly related to the adolescents attitude towards contraception

Variable	Level of sig.	D.f.	α
Age	0.25892	4	0.05
Sex	0.43762	2	0.05
Birth order	0.89734	6	0.05
Number of children per mother	0.62521	4	0.05
Parents marital union	0.71228	4	0.05
Parents place of residence.	0.86912	2	0.05
Denomination	0.65607	6	0.05
Father's occupation	0.19040	6	0.05
Mother's occupation	0.32322	6	0.05
Desired male children	0.17593	4	0.05
Father's level of education.	0.42256	2	0.05
Mother's level of education.	0.76821	2	0.05

Source: Field Survey.

4.3.4 Analysis of current use by selected variables

Table 4.3.4.a below shows that 31.4 % of the male adolescents are currently using contraceptives, while only 15.3 % of the female adolescents are currently using contraceptives.

Table 4.3.4.a Analysis of current use of contraception by the sex of respondents

Currently using contraception	Sex of the respondents.		Total
	Male	Female	
Yes	(60) 31.4	(29) 15.3	(89) 23.4
No	(131) 68.6	(60) 84.7	(291) 76.6
Total	(191) 100.0	(189) 100.0	(380) 100.0

Chi-Square value = 44.266, D.f. = 1, significance value = 0.00022 , α = 0.001.
Source:Field Survey.

Ho : There is no relationship between adolescents currently using contraception and their sex.

Ho : There is a significant relationship between adolescents currently using contraception and their sex.

With the significance value of 0.00022, we reject the null hypothesis at 0.001 level of significance and accept the alternative hypothesis. Therefore, there exist a significant relationship between the sex of the respondents and their current use of contraception.

In table 4.3.4.b below, it can be seen that most of the adolescents in all birth order categories are not currently using contraceptives. But only 26.9 % of those whose birth order were between one and two are currently using contraceptives ; while only 12.9 % of those in

birth order three and four are currently using contraceptives; 31.6 % of those in birth order five and six are currently using contraceptives; and 26.9 % of those whose birth order is seven or more are currently using contraceptives.

Table 4.3.4.b Current use of contraception by birth order

Currently using contraception	Adolescents birth order.				Total
	1-2	3-4	5-6	7+	
Yes	(46) 26.9	(15) 12.9	(18) 31.6	(7) 26.9	(86) 23.2
No	(125) 73.1	(101) 87.1	(39) 68.4	(19) 73.1	(284) 76.8
Total	(171) 100.0	(116) 100.0	(57) 100.0	(26) 100.0	(370) 100.0

Chi-Square= 6.043, D.f. = 3, significance level = 0.01401 , α = 0.05.
Source:Field Survey.

Ho : There is no relationship between adolescents currently using contraception and their birth order.

H1 : There is a significant relationship between adolescents currently using contraception and their birth order.

The null Hypothesis is rejected at 0.05 level of significance because the significance value of 0.01401 falls within the rejection region . Alternative hypothesis is therefore accepted that a significant association exist between the adolescent currently using the contraception and their birth order.

Looking at table 4.3.4.c below, 21 % of the adolescents from the monogamous family while 31.4 % of those from polygamous family are currently using contraceptives.

Table 4.3.4.c Currently using contraception by parents marital union

Currently using contraception	Parental marital union			Total
	Monogamy	Polygamy	Single	
Yes	(54) 21.0	(33) 31.4	(1) 5.9	(88) 23.2
No	(203) 79.0	(72) 68.6	(16) 94.4	(291) 76.8
Total	(257) 100.0	(105) 100.0	(17) 100.0	(379) 100.0

Chi-Square value = 3.947, D.f. = 2, significance value = 0.02308, α 0.05.
Source: Field Survey.

Ho : There is no association between adolescents currently using contraception and parental marital union.

H1 : There is a significant association between adolescents currently using contraception and parental marital union.

Since the significance value of 0.02308 falls within the rejection region at a significant level of 0.05, the null hypothesis is therefore rejected and alternative accepted. Therefore there is a significant association between adolescents currently using contraception and the marital status of their parents.

Examining the column percentages in table 4.3.4.d below, it can be seen that 30.3 % of the adolescents whose fathers are engaged in agricultural activities , while only 24.2 % of those whose fathers are office managers were leading among those currently using

contraceptives. Followed by those whose fathers are in the teaching profession (15.1 %) and lastly those who had their fathers engaged as supporting staff (13.7 %).

Table 4.3.4.d Currently using contraception by father's occupation

Currently using contraception.	Father's occupation.				Total
	Office managerial	Office Support	Agric. Work	Teaching	
Yes	(24) 24.2	(7) 13.7	(40) 30.3	(8) 15.1	(79) 23.6
No	(75) 75.8	(44) 86.3	(92) 69.7	(45) 84.9	(256) 79.4
Total	(99) 100.0	(51) 100.0	(132) 100.0	(53) 100.0	(335) 100.0

Chi-square value = 12.027, D.f. = 3, significance value = 0.04204, $\alpha = 0.05$.
Source: Field Survey.

Ho : There is no relationship between those currently using contraception and father's occupation.

H1 : There is a significant relationship between those currently using contraception and father's occupation.

With the significance value of 0.04204, the null hypothesis is rejected at 0.05, level of significance and the alternative hypothesis is accepted. Therefore there exist a significant relationship between adolescents currently using contraception and father's occupation.

The percentages in table 4.3.4.e below, shows that about 32 % of those who are currently using contraceptives were in favour of condom use due to the effect of HIV/AIDS. While 12.4 % of those against the use of contraceptives were using condoms because of HIV/AIDS pandemic.

Table 4.3.4.e **Adolescents currently using contraception by effect of the outcry on HIV/AIDS**

Currently using contraception	The effect of HIV/AIDS.			Total
	In favour	Against	No effect	
Yes	(67) 31.9	(13) 12.4	(6) 13.3	(86) 23.9
No	(143) 68.1	(92) 87.6	(39) 86.7	(274) 76.1
Total	(210) 100.0	(105) 100.0	(45) 100.0	(360) 100.0

Chi-Square value = 10.750, D.f. = 2, significance value 0.00013, α 0.001.
Source: Field Survey.

Ho : There is no association between adolescents currently using contraception and the effect of HIV/AIDS outcry.

H1 : There is a significant association between adolescents currently using contraception and the effect of HIV/AIDS outcry.

On the chi-square results, the null hypothesis is rejected at 0.001 level of significance since the significance value of 0.00013 falls within the rejection region . The alternative hypothesis is accepted meaning that there is a significant association between the adolescents currently using contraception especially condoms and the effect of HIV/AIDS.

It can be seen from table 4.3.4.f below that 34.8 % of those whose father's level of education was primary and below are currently using contraceptives. While 19.7 % of those whose father's level of education is secondary school and beyond are currently using contraceptives.

Table 4.3.4.f Currently using contraception by father's level of education.

Currently using contraception	Father's level of education.		Total
	None/Primary	Sec/Univ/College	
Yes	(31) 34.8	(56) 19.7	(87) 23.3
No	(58) 65.2	(228) 80.3	(286) 76.7
Total	(89) 100.0	(284) 100.0	(373) 100.0

Chi-Square value = 20.759, D.f. = 1, significance level = 0.00326, α = 0.01.

Source: Field Survey.

Ho : There is no relationship between the adolescents currently using contraception and father's level of education.

H1 : There is a significant relationship between the adolescents currently using contraception and father's level of education.

Since the significance value of 0.00326 lies within the rejection region level at 0.01 level of significance, null hypothesis is rejected and alternative hypothesis accepted., Therefore there is a significant association between the adolescents currently using contraception and their father's level of education. This means that parents level of education has an influence on adolescents practise of contraception.

Table 4.3.4.g **Summary of variables found not significantly related to the adolescents currently using contraception**

variable	level of sig.	D.f.	α
Age	0.06709	2	0.05
Number of children per mother	0.46544	2	0.05
Parents place of residents	0.53500	1	0.05
Denomination	0.49963	3	0.05
Mother's occupation	0.06404	3	0.05
Desired male Children	0.41752	2	0.05
Desired female Children	0.21838	2	0.05
Mother's level of education	0.18683	1	0.05
Age at first sexual intercourse.	0.35245	2	0.05

*Note that adolescents' ages and their mothers' occupations are significant at 0.1 level of significance.

Source:Field Survey.

4.3.5 Analysis of ever use of contraception by selected independent variables.

From table 4.3.5.a below, it is observed that 22.7 % of those aged 16 to 17 had ever used contraceptives compared to 29.5 % of those whose ages are between 18 to 20 had ever used a contraceptive, while only 7.9 % of adolescents in 14 to 15 year age group had ever used a contraceptive.

Table 4.3.5.a **Ever use of contraception by age of the respondents**

Ever use of contraception	Age of the respondents.			Total
	14-15	16-17	18-20	
Yes	(3) 7.9	(52) 22.7	(38) 29.5	(93) 23.5
No	(35) 92.1	(177) 77.3	(91) 70.5	(303) 76.5
Total	(38) 100.0	(229) 100.0	(129) 100.0	(396) 100.0

D.f. = 2, level of significant 0.02047, α = 0.05.

Source: Field Survey.

Ho : There is no relationship between adolescents ever use of contraception and their age.

H1 : There is a significant relationship between adolescents ever use of contraception and their age.

With the significance level of 0.02047, the null hypothesis is rejected at 0.05 level of significance and alternative hypothesis accepted. Therefore their is a significant relationship between ever use of contraception and the age of the respondents.

From table 4.3.5.b below, 28.4 % of the males interviewed had ever used contraceptives. Only 18.6 % of the females interviewed had ever used contraception.

Table 4.3.5.b Ever use of contraception by sex of the respondents

Ever use of contraception	Sex of the respondents.		Total
	Male	Female	
Yes	(56) 28.4	(37) 18.6	(93) 23.5
No	(141) 71.6	(165) 81.4	(303) 76.5
Total	(197) 100.0	(199) 100.0	(396) 100.0

Chi-Square Value = 46.265, D.f. = 1, level of sig. = 0.02100, α = 0.05.
Source: Field Survey.

Ho : There is no relationship between the sex of the respondents and ever use of contraception.

H1 : There is a significant relationship between the sex of the respondents and ever use of contraception.

With significance level of 0.02100, the null hypothesis is rejected and alternative accepted. Therefore there is a significant association between the sex of the respondents and ever use of contraception.

Table 4.3.5.c below shows that the most significant proportion (37.7 %) of the adolescents who have ever used a contraceptive were of fifth and sixth birth order, followed by those in first and second birth order.

Table 4.3.5.c Distribution of 'ever use of contraception' by birth order of the respondents

Ever use of contraception	Respondents birth order.				Total
	1-2	3-4	5-6	7+	
Yes	(43) 24.3	(18) 14.9	(23) 37.7	(6) 23.1	(90) 23.4
No	(134) 75.7	(103) 85.1	(38) 62.3	(20) 76.9	(295) 76.6
Total	(177) 100.0	(121) 100.0	(61) 100.0	(26) 100.0	(385) 100.0

Chi-square value = 6.078, D.f. = 3, level of significance = 0.00753, α = 0.01.
Source: Field Survey.

Ho : There is no relationship between the respondents use of contraception and their birth order.

Hl : There is a significant relationship between the respondents use of contraception and their birth order.

With the significance of 0.00753, the null hypothesis is rejected at 0.01 level of significance and alternative hypothesis accepted. Therefore there is a significant association between the respondents ever use of contraception and their birth order. Those with high birth

order are more likely to use contraceptive because they may have been deprived of some benefits due to their position in the family or the large number of family members, and they may not wish to have a lot of children to subject them to the experience they went through. It may influence the desired family size of the adolescents hence influencing their views and behaviour towards family planning.

From table 4.3.5.d below, most of the adolescents who had ever used a contraceptive have their fathers engaged in agricultural activities (30.6 %), followed by those whose fathers office managers (21.7 %), followed by those whose father are teachers and supporting stuff respectively.

Table 4.3.5.d Ever use of contraception by father's occupation

Ever use of contraception	Father's occupation.				Total
	Office managerial	Office Support	Agric. work	Teaching	
Yes	(23) 21.7	(6) 11.5	(41) 30.6	(9) 16.4	(79) 22.8
No	(83) 78.3	(46) 88.5	(93) 69.4	(46) 83.6	(268) 77.2
Total	(106) 100.0	(52) 100.0	(134) 100.0	(55) 100.0	(347) 100.0

Chi-square value = 11.839, D.f. = 3, level of significance = 0.02079, $\alpha = 0.05$.
Source: Field Survey.

Ho : There is no relationship between ever use of contraception and respondent's father's level of education.

Hl : There is a significant relationship between ever use of contraception and respondent's father's level of education.

The null hypothesis is rejected at 0.05 level of significance and the alternative hypothesis accepted. Therefore there exists a significant relationship adolescents ever use of contraception and father's occupation.

Table 4.3.5.e below shows that a bigger proportion (28.9 %) of those who have ever used contraceptives were in favour of it due to the outcry of HIV/AIDS.

Table 4.3.5.e Ever use of contraception by effect of the HIV/AIDS

Ever use of contraception	Effect of HIV/AIDS outcry.			Total
	In favour	Against	No effect	
Yes	(63) 28.9	(19) 17.1	(8) 17.0	(90) 23.9
No	(155) 71.1	(92) 82.9	(39) 83.0	(289) 76.1
Total	(218) 100.0	(111) 100.0	(47) 100.0	(376) 100.0

Chi-Square value = 11.250, D.f. = 2, level of significance 0.02992, $\alpha = 0.05$.
Source: Field Survey.

Ho : There is no relationship between ever use of contraception and effect of the outcry on HIV/AIDS.

H1 : There is a significant relationship between ever use of contraception and effect of the outcry on HIV/AIDS.

With the significance value of 0.02992, the null hypothesis is rejected at 0.05 level of significance and the alternative hypothesis is rejected. This, therefore, means that there is a significant relationship between ever use of contraception and effects on the outcry on HIV/AIDS.

From table 4.3.5.f below, 33.0% of the adolescents whose fathers attained primary schooling and below had ever used a contraceptive. While 20.5 % of the adolescents whose fathers are graduates of secondary school and beyond had ever used a contraceptive.

Table 4.3.5.f Ever use of contraception by father's level of education

Ever use of contraception	Father's level of education.		Total
	None/Primary	Sec/Univ./College	
Yes	(30) 33.0	(61) 20.5	(91) 23.4
No	(61) 67.0	(237) 79.5	(298) 76.6
Total	(91) 100.0	(298) 100.0	(389) 100.0

Chi-square value = 21.288, D.f = 1, level of significance =0.01371, α = 0.05.
Source: Field Survey.

Ho : There is no relationship between ever use of contraception and adolescent's father's level of education.

H1 : There is a significant relationship between ever use of contraception and adolescent's father's level of education.

With the significance value of 0.01371, the null hypothesis is rejected at 0.05 level of significance and the alternative hypothesis accepted; meaning that their exists a significant relationship between ever use of contraception and father's level of education.

Table 4.3.5.g **Summary of variables found not significantly related to the adolescents ever use of contraception**

Variable	Level of sig.	D.f.	α
Number of children per mother	0.71612	2	0.05
Parent's marital union	0.06065	2	0.05
Parent's usual residential place	0.10705	1	0.05
Denomination	0.89852	3	0.05
Mother's occupation	0.27044	3	0.05
Desired family size	0.12041	2	0.05
Desired male children	0.75051	2	0.05
Desired female children	0.34763	2	0.05
Mother's level of education	0.58250	1	0.05
Age at first sexual intercourse	0.40597	5	0.05

Source: Field Survey.

CHAPTER FIVE

MULTIVARIATE ANALYSIS

5.4 Multiple Regression Analysis Results

The following are the variables and their codes for multiple regression and logistic regression purposes.

Dependent Variables.	Codes.
Number of methods known.	Q018AR.
Number of methods application known.	Q019AR.
Ever use of contraception.	Q031.
Current use of contraception.	Q034.
Attitude towards contraception.	Q020R.

Independent variables.	Codes.
Fathers level of education.	
None/primary education	Q007ARR1
Secondary/University/College	Q007ARR2
Mothers level of education.	
None/primary education	Q007BRR1
Secondary/University/College	Q007BRR2
Father's occupation.	
Office (managerial/clerical)	Q008ARR1
Office (supporting staff)	Q008ARR2
Agricultural work	Q008ARR3
Teaching	Q008ARR4
Mother's occupation.	
Office (managerial/clerical)	Q008BRR1
Office (supporting staff)	Q008BRR2
Agricultural work	Q008BRR3
Teaching	Q008BRR4

Type of parent marital union	
Monogamous	Q009R1
Polygamous	Q009R2
Single	Q009R3
Parents usual place of residence	
Urban	Q011R1
Rural	Q011R2
Number of children per mother	
1 to 3 Children	Q010RR1
4 to 6 children	Q010RR2
7 to 12 children	Q010RR3
Denomination.	
Catholic	Q013R1
Protestant	Q013R2
Moslems	Q013R3
Others	Q013R4
Effect of HIV/AIDS.	
In favour	Q027DR1
Against	Q027DR2
No effect	Q027DR3
Specific age at first sexual intercourse.	
10 to 15	Q030BR1
15 to 17	Q030BR2
18 to 20	Q030BR3
Age of respondents.	
14 to 15	Q001RR1
16 to 17	Q001RR2
18 to 20	Q001RR3
Sex of respondents.	
Male	Q001BR1
Female	Q001BR2
Birth Order.	
1-2	Q003RR1
3-4	Q003RR2
5-6	Q003RR3
7+Q	Q003RR4

The results obtained in the stepwise regression analysis are as given below. It is observed that only four of the independent variables put in the regression equation are statistically significant in explaining the dependent variable 'Number of methods known'. These are, adolescents aged between 18 and 20 years, high mothers' level of education (secondary school and above), desire for two or less female children, and finally fathers' high level of education (secondary school and above). The remaining variables are statistically insignificant. This may be due to the inter-relationship with some other variables. For example the higher level of parents education enables them to acquire better employment hence the relationship.

Table 5.1.1 below shows that all the four independent variables explains about 6.7 % of the variation. This means that some of the factors that explain number of methods known by the adolescents have not been included, for example place of residence.

Among all the independent variables, adolescents whose ages are between 18 and 20 years has the greatest explanatory power, accounting for 2.4 % of the number of methods known by the adolescents. It is also noted that all the four variables are positively related to the number of methods known by the adolescents. Since the age bracket of 18 to 20 years has the highest explanation of the number of methods known, it confirms the hypothesis that age has an impact on adolescents attitude and practise of contraception. Also found to be significant are father's and mother's higher level of education. This confirms the hypothesis that parents education has influence on adolescents knowledge of contraceptives. Therefore the regression result confirmed two of the operational hypotheses.

Table 5.1.1 Dependent Variable ' Number of methods known' and selected independent variables

Variable	Eq 1	Eq 2	Eq 3	Eq 4
Q001RR3	0.244438	0.280525	0.269687	0.249309
Q007BRR2		0.204066	0.199648	0.315927
Q006BRR1			-0.245240	-0.274671
Q007ARR2				-0.247501
Constant	1.617100	1.480551	1.519974	1.646199
T	3.124	2.693	-2.314	-2.449
Sig. T	0.0019	0.0074	0.0212	0.0148
R^2	0.02399	0.04155	0.05436	0.06853

Source: Field Survey.

Note;
Dependent variable.
Q018AR: Number of methods known.

Independent Variables.
Q001RR3; Adolescents aged between 18 to 20 years.
Q007BRR2; High mother's level of education (secondary school and above).
Q006BRR1; Desire for two or less female children.
Q007ARR2; Father's high level of education (secondary school and above).

Number of Methods Known = 1.646199 + 0.24309 (Q001RR3) + 0.315927 (Q007BRR2) + -0.274671 (Q006BRR1) + -0.247501 (Q007ARR2) +0.71840.

The observation in table 5.1.2 below shows that only six of the independent variables put in the regression equation are statistically significant in explaining the dependent variable 'number of methods usage known'. These are the effects of HIV/AIDS, which has the greatest explanatory power, then two or less female children desired, ages at first sexual intercourse between 15 to 17 and between 18 to 20 respectively, adolescents in the protestant faith, and high mother's level of education.

All the six variables combined explains about 7.3 % of the variations in the dependent variable 'number of methods usage known'. Other independent variables are statistically insignificant, but some of them may be inter-related to the six significant variables.

It is also noted that all the six variables are positively related to the number of methods known. The significant variables confirm the hypotheses that HIV/AIDS has an effect on the adolescents attitude and practice of contraception; adolescents of Protestant faith have a more favourable attitude and higher practice of contraception than their counterparts in Catholic faith; and parents level of education has influence on adolescents use, attitudes and knowledge of contraception. The regression result confirmed three of the hypotheses, with a contrast in the hypothesis that; adolescents who experience first sexual intercourse at an early age are likely to be using contraceptives.

Table 5.1.2 Dependent variable 'number of methods usage known' and selected independent variables

Variables	Eq 1	Eq 2	Eq 3	Eq 4	Eq 5	Eq 6
Q027DR1	-0.17004	-0.15592	-0.16069	-0.13559	-0.12993	-0.123778
Q006BRR1		-0.20521	-0.20302	-0.19917	-0.18961	-0.187819
Q030BR3			0.15067	0.22796	0.22349	0.225666
Q030BR2				0.19205	0.21317	0.206426
Q013R2					0.13861	0.139898
Q007BRR2						0.130896
Constant	1.538462	1.562139	1.525537	1.439965	1.354119	1.273067
T	-2.394	-2.189	2.052	2.563	2.162	2.034
Sig.T	0.0171	0.0292	0.0408	0.0107	0.0312	0.0426
R^2	0.01420	0.02595	0.03620	0.05197	0.06308	0.07285

Source:Field Survey.

Note:
Dependent variable.
Q019AR: Number of methods application known.

Independent Variables.
Q027DR2: Effect of HIV/AIDS.
Q006BRR1; Desire for two or less female children.
Q030BR3; Age at first sexual intercourse between ages 18 to 20.
Q030BR2; Age at first sexual intercourse between ages 16 to 17.
Q013R2: Adolescents of Protestant faith.
QOO7BRR2; High mother's level of education (secondary school and above).

Number of methods usage known = 1.273067 + -0.123778 (Q027DR2) + -0.187819 (Q006BRR1) + 0.225666 (Q030BR3) + 0.206426 (Q030BR2) + 0.139898 (Q013R2) + 0.130896 (QOO7BRR2) + 0.62572.

Table 5.1.3 below shows that only three of the dependent variables are significantly related to the dependent variable 'adolescents attitude towards contraception'. These are the effects of HIV/AIDS; age at first sexual intercourse between 16 to 17 and 18 to 20 years respectively.

All these variables combined explain about 4.4 % of the dependent variable. The hypotheses that are confirmed here are ; HIV/AIDS has a positive influence on the adolescents attitude and use of contraceptives; Age has an impact on adolescents' attitudes and practice of contraception. With a contrast on the hypothesis that; adolescents who experience first sexual intercourse at an early age have positive attitudes towards contraception.

It is important to note that all the significant independent variables are positively related to the dependent variable.

Table 5.1.3 Dependent variable 'attitude towards contraceptives' and selected independent variables

Variables	Eq 1	Eq 2	Eq 3
Q027DR2	-0.223776	-0.203189	-0.199507
Q030BR2		0.142569	0.204107
Q030BR3			0.169654
Constant	2.723776	2.674425	2.612193
T	-3.094	1.998	2.095
Sig. T	0.0021	0.0464	0.0368
R^2	0.02349	0.03321	0.04381

Source: Field Survey.

Note;
Dependent variable.
Q020R: Attitude towards contraception.

Independent Variables.
Q027DR2; In favour of contraception due to HIV/AIDS effect.
Q030BR2; Age at first sexual intercourse between ages 16 to 17.
Q030BR3; Age at first sexual intercourse between ages 18 to 20.

Attitude towards contraceptives = 2.612193 + -0.199507 (Q027DR2) +0.204107 (Q030BR2) + 0.169654 (Q030BR3) +0.64774.

5.2.1 Logistic Regression Results

Table 5.2.1.a below shows that six independent variables were found to be significantly related to the dependent variable 'adolescents currently using contraceptives'. The most significant independent variable and first to be included in the model is female respondents. This confirms the hypothesis that female adolescents are more familiar with the methods than their male counterparts ; this may be because most of the contraceptive methods are for women's use . Other independent variables found to be significant were high birth order (order 4 and

above), effect of HIV/AIDS, father's high level of education and specific ages at first sexual intercourse between 15 to 17 and 18 to 20 respectively.

Other hypotheses confirmed include; the fear of HIV/AIDS has a positive influence on the adolescents attitude and use of contraceptives, parents level of education has influence on adolescents use of contraceptives; it can also be seen that adolescents who experience first sexual intercourse at later ages (between 15 to 20 years) are likely to be using contraceptives.

Table 5.2.1.a **Logistic Regression estimates on determination of the adolescents currently using contraceptives and selected variables**

Variable	Eq 1	Eq 2	Eq 3	Eq 4	Eq 5	Eq 6
Q001BR2 B Sig. Exp (B)	0.9267 0.003 2.5262	0.8405 0.003 2.513	0.8540 0.0011 2.3489	0.7431 0.0055 2.1024	0.7634 0.0038 2.1455	0.9100 0.0011 2.4844
Q003RR2 B Sig. Exp (B)		0.9810 0.0017 2.6671	0.9802 0.0019 2.6650	0.9818 0.0020 2.6691	0.9420 0.0033 2.5631	0.9853 0.0025 2.6787
Q027DR1 B Sig. Exp (B)			0.8762 0.0082 2.4017	0.9111 0.0068 2.4871	0.8122 0.0170 2.2520	0.7864 0.0217 2.1955
Q007ARR2 B Sig. Exp (B)				0.6705 0.0162 1.9554	0.7023 0.0125 2.0183	0.6941 0.0139 2.0019
Q030BR2 B Sig. Exp (B)					-0.6283 0.0191 0.5335	-1.0404 0.009 0.3533
Q030BR3 B Sig. Exp (B)						-1.0039 0.0034 0.3665
Constant	0.7809	0.5288	0.3717	-0.0674	0.1516	0.5050

Source: Field Survey.

Note:
Dependent variable.
Q054: Current use of contraception.
Independent Variables.
Q001BR2; Female adolescents.
Q003RR2; High birth order (order four and above).
Q027DR1; Effect of HIV/AIDS.
Q007ARR2; Father's high level of education (secondary and above)
Q030BR2; Specific ages at first sexual intercourse between 15 to 17.
Q030BR3; Specific ages at first sexual intercourse between 18 to 20.

In table 5.2.1.b below, those whose specific age at first sexual intercourse is between 15 to 17 years is the most significant in determining the dependent variable 'ever use of

contraceptives' and was therefore the first variable to be included in the model. This shows that the adolescents who experience first sexual intercourse between age 15 to 20 years are likely to use contraceptives. Other variables found to be significant were; those who experience first sexual intercourse at ages between 18 to 20 years; high father's level of education, those whose birth order are from four and above and, lastly, female adolescents have ever used more contraceptive methods than male adolescents.

The variables further confirm the following hypotheses; parents high level of education has a positive influence on adolescents use of contraceptives; adolescents birth order has a positive influence on adolescents use of contraceptives; and lastly female adolescents are familiar with more methods than their male counterparts.

Table 5.2.1.b **Logistic Regression estimates on the determination of ever use of contraceptives and selected variables**

Variable	Eq 1	Eq 2	Eq 3	Eq 4	Eq 5
Q030BR2					
B	-1.0727	-1.5391	-1.5739	-1.5609	-1.5899
Sig	0.000	0.000	0.000	0.000	0.000
Exp (B).	0.3421	0.2146	0.2072	0.2099	0.2040
Q030BR3					
B		-1.0466	-1.0539	-0.9898	-1.0991
Sig.		0.0014	0.0014	0.0030	0.0012
Exp (B).		0.3511	0.3486	0.3716	0.3332
Q007ARR2					
B			0.6984	0.7341	0.6258
Sig.			0.0101	0.0075	0.0252
Exp (B).			2.0105	2.0836	1.8697
Q003RR3					
B				-0.8053	-0.8541
Sig.				0.0100	0.0068
Exp (B).				0.4470	0.4257
Q001BR2					
B					0.6021
Sig.					0.0218
Exp (B).					1.8260
Constant	1.5747	2.0412	1.5521	1.6518	1.5009

Source: Field Survey.

Note;

Dependent variable.

Q031: Ever use of contraception.

Independent Variables.

Q030BR2; Specific ages at first sexual intercourse between 15 to 17.

Q030BR3; Specific ages at first sexual intercourse between 18 to 20.

Q007ARR2; Father's high level of education (secondary and above)

Q003RR3; High birth order (order four and above).

Q001BR2; Female adolescents.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATION

6.1.1 Introduction

The examination of knowledge, attitudes and practise of contraception among adolescents was the main objective of this study. Few of the previous studies on contraception have not been directed at the adolescents. Focus has mainly been on the married and adults.

To accomplish the objectives of the study, it was acknowledged that there are demographic, social, cultural and economic factors that affect knowledge, attitude and practise of contraception. Such factor includes; age, sex, number of children born to own mother, birth order, effects of HIV/AIDS pandemic, exposure to mass media, religion, family size and composition desired, parents' occupation and usual place of residence, sources of FP information, methods known and their application, attitude towards FP, age at their first intercourse experience and their sexual partners, and those who are meant to convey the family planning message to the adolescents and the married.

6.1.2 Summary

Chapter one of this study was mainly dealing with general overview of the study of adolescents knowledge, attitudes and practice of contraception. It also gave a brief illustration on how family planning programmes began in Kenya and Kenya's population growth rate.

This chapter also focuses on the brief history of Kisumu District, mainly in terms of location, administration and political units, demographic and settlement patterns, and the population growth rate. The chapter also included the problem statement, justification of the

study, objective of the study, and scope and limitation on the study.

Chapter two contains the literature review, which showed clearly that a lot of work has been done on contraception and adolescent fertility but not much has been written on the adolescents and contraception combined. This chapter also focused on the conceptual statements, conceptual model, operational model, operational hypotheses and the definition of concepts.

Chapter three mainly dealt with the methods of data collection and analysis. This section mainly focused on the study population, the sample size, the sampling procedure and the sampling methods used in the study, and how the data collected would be analyzed.

Chapter four was mainly concerned with the data presentation and data analysis. The frequency distribution of the respondents according to the variables for the analysis were provided. They were divided based on the knowledge, attitude and practise of contraception.

A total number of 400 respondents aged between 14 to 20 were interviewed, out of which 200 were males and 200 were females. 394 were single, 3 were married and one reported to have divorced. 86 % of the respondents were of birth order between 1 and 5.

On desired family size, 43.4 % desired a small family of less than 4 children, those who desired 4 to 6 children were 40.8 % with those who desired more than six children forming only 15.8 %. This means that the number of children desired is mainly below 4 therefore there is a likelihood of them practising family planning in future.

On family composition, majority of the respondents desired at least a boy and a girl, therefore if a boy or a girl is not forthcoming then the desired family size may be ignored and consequently lead to lower practise of family planning with it.

Section 4.2.2. dealt with the adolescents' background. On parents' education, which is important in facilitating contraceptive communication between adolescents and their parents, especially mothers, majority of the fathers (75 %) and 61 % mothers had secondary and post-secondary education.

On parents occupation, 34 % of fathers and 44.5 % mothers were engaged in agricultural activities. Adolescents who had their parents working as officers were 39.8 % and 25.5 % for fathers and mothers respectively. 13.8 % of fathers and 16.8 % of mothers were teachers.

Most mothers (63.7 %) of the adolescents interviewed had between 1 and 6 children. This is important in that it may influence the adolescents desired family size, and hence, knowledge, attitudes and practice of contraception. 50 percent of the respondents had their parents living in urban areas with a similar percentage in the rural areas.

Protestants (58 %) were the majority among the respondents followed by Catholics (36 %), then other religions (Hindu and Sikhs) (4.5 %) and lastly Muslims (3.5 %). Most of them (79.8 %) reported that they attend church services more than three times a month.

Section 4.2.3 captured the contraception knowledge of the respondents, whereby the main source of information of family planning issues to the adolescents were the radio (88.5 %), Newspapers (73.0 %), and Book/Pamphlets (65.3 %). While Radio (55.5 %) was the most frequent source of information to the adolescents.

This section also dealt with the knowledge and application of specific methods. The most familiar methods were condoms (93.5 %), Pill (80.3 %) and injection (59.8 %) . Norplant is relatively new to the adolescents and that is why it was least known (8.3 %).

Relatively few respondents applied traditional methods like withdrawal (8.0 %) and abstinence. But for the modern methods, condoms and pills were best known and are fairly used among the adolescents.

Section 4.2.4 dealt with the adolescents attitudes on contraception. 77 % indicated that they are in favour of family planning with only 13.1 % against. 7 % were indifferent with a none response of 2.9 %.

They were in favour of family planning methods as a means to improving their social, cultural and economic wellbeing as well as for the national development; that is reduction of unemployment, improvement of infrastructure and reduction of overpopulation. The few respondents who were against the use of contraception cited as a main reason, that contraception is dangerous to women's health and may render them unable to have children.

58 % were of the view that contraceptives should be made available to the adolescents especially at age 18 and above as indicated by 44.3 % of the respondents. Most of them (74.5 %) also felt that family planning should be introduced in the secondary school curriculum as a subject. Nearly all (97.3 %) of the respondents reported to have heard about HIV/AIDS. And a good percentage of respondents, that is 61.8 % and 76.5 % respectively, have heard of those of those who have or was reported to have died of HIV/AIDS.

To gauge their attitude towards contraceptives especially condoms and abstinence due to HIV/AIDS, 54.8 % indicated that they are in favour with only 28.5 % against.

Section 4.2.5. dealt with adolescents practice of contraception. To capture their opinion on the age at which Kenyan adolescents' start sexual intercourse, majority reported 15 and 12 for male and female respectively. It was also realised from this section that the most of the

respondents (22.5 %) started having sexual intercourse as early as age 15. More than 65. % had at least one sexual partner with 56 % reported that they have had sexual intercourse with their partners. On the other hand, only 23.5 % reported to have ever used a contraceptive methods. Fairly used contraceptives were condoms (19 %) and pills (2.8 %). The main reasons for using the contraceptives mentioned above were due to fear of contracting sexually transmitted diseases including HIV/AIDS and fear of pregnancy or impregnating their partners. Among those who use contraceptives, 13.8 % obtain them from shops/pharmacy/chemists because they are within reach and the prices are affordable. This is followed by government clinics (10.3 %), mainly because they are provided free.

The adolescents were also of the opinion that the appropriate group to convey family planning methods to them were health/medical officers (70.0 %) followed by teachers (66.8 %) and parents (60.0 %).

The analysis of knowledge, attitudes and practice of contraception with respect to the independent variables was done in order to establish association using the chi-square test. Section 4.3.1. up to section 4.3.6. presented analysis of attitudes and practise of contraception with respect to the independent variables.

Section 4.3.1. presented the chi-square test results of the dependent variables by selected independent variables. Number of methods known as dependent variables by age, sex and mother's level of education of the respondents as independent variables were found to be significantly related at 0.05 level of significance. Other independent variable found not to be significantly related to number of methods known by adolescents were birth order, number of children per mother, parents marital union, parent usual place of residence, denomination ,

father's and mother's occupation , HIV/AIDS effect, desired family size, desired male and female children , father's level of education and specific age at first sexual intercourse.

In section 4.3.2. the chi-square test was used to establish whether there was a relationship between the 'Number of methods whose application are known' as the dependent variable and selected independent variables. The independent variable found significantly related to the dependent variable 'Number of methods whose application are known' were mother's occupation and number of desired female children. While the other variables found not significantly related to it were age and sex of the respondents, number children per mother, parental marital union,parents place of residents, denomination, father's occupation, HIV/AIDS effect, desired family size, desired male children, father's level of education, mother's level of education and specific age at first sexual intercourse.

In section 4.3.3. chi-square test was used to establish the relationship between attitude as a dependent variable and other selected variables. Found significantly related to attitude of adolescents on family planning at 0.05 level of significance were effects of the outcry on HIV/AIDS, desired family size, desired number of female children and specific age at first sexual intercourse. Other independent variables like age and sex, birth order, number of children per mother,parents marital union, parents place of residence, denomination , father's occupation, mother's occupation, desired male children, father's level of education, and mother's level of education were found not to be significantly related to the attitude towards contraception.

On practice of contraception, chi-square test was used to establish whether there was a relationship between 'current use of contraception' as dependent variable and other selected

independent variables. Found significantly related to current use of contraception were sex of the respondents, their birth order, type of parents marital union, father's occupation, effects of the outcry of HIV/AIDS and father's level of education. Insignificant independent variables were age of the respondents, number of children per mother, parents place of residence, denomination, mother's occupation, desired male and female children, mother's level of education and specific age at first sexual intercourse.

Still on practise of contraception, the dependent variable 'ever use of contraception' was tested against other selected independent variables. Found significantly related to it were age and sex of the respondents, birth order, father's educational level and occupation, and the outcry of HIV/AIDS. Not significantly related to ever use of contraceptives were number of children per mother, parents marital union, parents place of residence, denomination, mother's occupation, desired family size, desired male and female children, mother's level of education, and specific age at first sexual intercourse.

Chapter Five of this study dealt with the multiple regression and logistic regression analysis. As it appears in table 5.1.1. the variables that significantly explained the dependent variable 'number of methods known by adolescents' are adolescent age between 18 to 20 years old, high mother's level of education , desire for more female children and high level of father's education.

In table 5.1.2. the independent variables that significantly explained the dependent variable 'number of methods usage known' were the effect of HIV/AIDS, desire for female children, age at first sexual intercourse between 16 to 17 and 18 to 20 respectively, those in the protestant faith and finally high father's level of education.

In section 5.1.3., the variables that significantly explained the adolescents' attitudes towards contraceptives were the effects of HIV/AIDS, age at first sexual intercourse between 16 to 17 years and 18 to 20 years respectively.

In section 5.2.1. logistic regression was used to explain the dependent variables which were categorical. The independent variables which significantly explained the dependent variable 'adolescents currently using contraceptives' were female adolescents who are currently using contraceptives than their male counterparts, high birth order, effect of HIV/AIDS, high father's level of education, and specific age at first sexual intercourse between 16 to 17 years and 18 to 20 years respectively.

Logistic regression was further needed as it appears in table 5.2.2. to further analyze practise of contraceptives. The dependent variable 'ever use of contraceptives' was found to be significantly explained by age at first sexual intercourse between 16 to 17 and 18 to 20 respectively, high father's level of education, high birth order, and finally, female adolescents.

6.1.3 Findings and conclusions

From the study, the knowledge, attitudes and practise of contraception among the adolescents is very low even with the emergence of the dreadful HIV/AIDS disease. This could be attributed to the fact that information, education and communication of family planning methods has not been effective among the adolescents. This may also be due to the fact that the law bars the adolescents from the use of family planning methods.

It is important that the hypotheses put forward in this thesis be examined carefully based on the analysis to enable us to establish the findings of the study.

It was hypothesized that adolescents do not know much about methods of contraception. This is confirmed by the information in table 4.2.3.e. whereby about 77 % of the respondents knew between 1 to 5 types of family planning methods only. This is further confirmed in table 4.2.3.f. because about 91 % of the respondents knew only how between 0 to 3 contraceptive methods are used.

It was also hypothesized that adolescents who experience first sexual intercourse at an early age are more likely to be using contraceptives. The Chi-Square results in table 4.3.3.c. establish that a relationship exist between adolescents attitude towards contraceptive by age at first sexual intercourse. But it come out clearly from the logistic regression analysis in tables 5.2.1. and 5.2.2. that those who experienced first sexual intercourse at an early age did not contribute to contraceptive use. In contrast, middle age and later age at first sexual intercourse, that is between 16 to 20 years, leads to higher contraceptive use. This may be attributed to the fact that this age group are more fearful of pregnancy and sexually transmitted diseases including HIV/AIDS.

It was also hypothesized that the number of siblings has an influence on the students use of contraceptives. This was not confirmed by any test carried out in the study.

It was also hypothesized that adolescent's birth order has no influence their use, attitudes and knowledge of contraceptives. But the chi-square results in tables 4.3.3.b. and 4.3.5.c. shows that their is a significant relationship between current use of contraceptives by birth order and ever use of contraceptives and birth order.

It was also hypothesized that parents' education has influence on the adolescent students' knowledge, attitudes and practice of contraception. The chi-square results in table 4.3.1.c.

showed that there was a significant relationship between the number of methods known and adolescents' mothers' level of education. Table 4.3.5.f. shows a significant relationship between adolescents' ever use of contraceptive and fathers' level of education. Table 4.3.4.f. also shows the significant relationship between adolescents currently using contraceptives and their fathers' education. Table 4.4.1. confirms the hypothesis as it was shown that number of methods whose applications are known by adolescents is significantly associated by mothers' high level of education. High father's level of education also explains the adolescents' ever use of contraception and adolescents currently using contraception. The hypothesis is therefore confirmed.

It was also hypothesized that HIV/AIDS pandemic has a positive influence on the adolescents' knowledge, attitudes and practice of contraception. This was first confirmed by the distribution in table 4.2.4.e. whereby 54.8 % of adolescents interviewed were in favour of contraceptive use especially condoms due to HIV/AIDS pandemic. The chi-square further showed in table 4.3.3.a. that there is a significant relationship between the adolescents' attitudes towards contraception and the effect of the outcry of HIV/AIDS. Table 4.3.5.e. showed a significant relationship between ever use of contraceptives among adolescents and the effect of HIV/AIDS. Table 4.3.4.e. also showed a significant relationship between adolescents currently using contraceptives and the effect of HIV/AIDS. The regression analysis in table 5.1.2. showed that the effect of HIV/AIDS explained the number of methods whose application were known by the adolescents. In table 5.1.3. HIV/AIDS pandemic strongly explained adolescents attitude towards contraceptives. In the logistic analysis in table 5.2.1. HIV/AIDS pandemic explained the current use of contraceptives among adolescents.

It was also hypothesized that exposure to mass media has an influence on the adolescent students' knowledge of contraceptives. This was confirmed in table 4.2.3.a. whereby radio, newspapers, books/pamphlets and television were the most important source of family planning information to the adolescents and table 4.2.3.b. showed that radio (55.8 %), books/pamphlets (13.8 %) and television (9.5 %) are the most frequent source of information of family planning methods to the adolescents. The hypothesis is therefore confirmed.

It was also hypothesized that adolescents of Protestant faith have a positive attitude towards contraception. This was confirmed in the regression analysis in table 5.1.2. whereby Protestant denomination explains the number of methods whose applications are known by the adolescents.

It was also hypothesized that parents occupation affects the number of contraceptives known and used by the adolescents. The chi-square results in table 4.3.2.a. showed that there was a significant relationship between the number of methods whose application were known by mother's occupation. Table 4.3.4.d. showed a significant relationship between adolescents currently using contraceptives by father's occupation. Table 4.3.5.d. also showed a significant relationship between adolescents ever use of contraceptives and father's occupation. This, in contrast, shows that there is some influence on contraceptive knowledge and use by father's occupation.

It was also hypothesized that parents' place of residents determines the number of contraceptives known by the adolescents. This hypothesis was not confirmed.

It was also hypothesized that type of parental union (marriage) has no influence on the adolescents' attitudes, knowledge and practise of contraceptives. But in contrast, the chi-square results in table 4.3.4.c. showed that there is a significant relationship between adolescents' current use of contraception by parents marital union.

Finally, it was hypothesized that sex of the adolescents has an effect on their knowledge, attitude and practice of contraception. The chi-square results in table 4.3.1.b. showed that there is a significant relationship between the number of methods known by sex of the respondents. Table 4.3.4.a. showed a strong relationship between current use of contraceptives by sex. Table 4.3.5.b. also showed a significant relationship between sex and ever use of contraceptives. In the logistic regression in table 5.1.1., female sex explained strongly the current use of contraceptives. Table 5.1.2. shows that female sex strongly explains ever use of contraceptives.

6.1.4 Recommendation for Policy Makers

The major recommendations emanating from the study which will be most useful to many population policy makers are as follows:

a). Adolescents sexual intercourse in Kenya is very common . We therefore recommend that family life education programme should be introduced and intensified in secondary schools and the institutions of higher learning with a view to making teenagers understand the consequences of early sexual activity and how they can avoid it.

b). Parents and teachers have a role to play in educating the adolescents on family planning issues. This is evidenced by the fact that they are rated second and third among the groups adolescents believe should advise them on family life education.

c). Radio was reported to be the main source of family planning information to the teenagers and we therefore recommend increased use of radio as a means of disseminating family planning information to the adolescents and other forms of mass media like television, books/pamphlets and newspapers also featured prominently among sources of information of family planning. Therefore the government and relevant agencies should sponsor more family planning education programmes through the existing mass media in Kenya . By this the message will potentially reach the majority of the adolescents.

d). We recommend that information pertaining to HIV/AIDS be made available to the adolescents because most of them have heard about it but are not fully aware of it's mode of transmission hence they do not take precautions towards its prevention. It is important, therefore, that complete information on HIV/AIDS be disseminated to the adolescents.

e). The policy that bar adolescents from obtaining information about family planning should be abolished to enable the government and private clinics to give advice and provide contraceptive facilities to the adolescents.

f). There is need to counsel adolescents especially by medical/ health personnel, parents and teachers about contraception which in turn my lead to the reduction of adolescent pregnancy, spread of HIV/AIDS and single mothers among the adolescents.

6.1.5 Recommendation for Further Research

Based on our findings, we would recommend the following to those who wish to carry out further research on this most interesting area of adolescents' knowledge, attitudes and practise of contraception;

- There is need for a country wide survey on adolescents' knowledge , attitude and practise of contraception in this era of HIV/AIDS to ascertain its impact among the adolescents and for regional (Province, District and Divisional) comparison, because this study only focused on the adolescents within Kisumu District.

- Further research should also be carried out on out-of-school adolescents for comparison with those arising from this research . This will assist policy makers in making comprehensive policies on adolescents and contraceptives.

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Appendix

Questionnaire

Confidential

I am conducting a survey to learn the adolescents knowledge, attitude and practice of contraception. This information when available will be used to administer family planning methods among the adolescents. Some of the questions are very personal and your answers to this questionnaire will remain confidential. Because there is no name in the questionnaire, no one will know that these are your answers. Thank you for your assistance.

RESPONDENTS CHARACTERISTICS

001. State your age and sex: Age.....

Sex: 1. Male . Female

002. State your marital status. Tick one from the following

1. Single . Married 3. Divorced 4. Widow 5. Widower

003. Birth order in the family. Indicate whether you are 1st born or 2nd born etc. .....

004. If you are married, how many children do you have? .....

005. If single, do you at the moment have any child?

(i) 1. Yes 2. No

If yes, state the number .....

(ii) What is the family size that you desire?

State the number of children.....

006. What is your desired family composition?

(i) Number of male children.....

(ii) Number of female children.....

FAMILY BACKGROUND

007. State your parents level of education

(i) Father 0. None

1. Primary

2. Secondary

3. University/college

4. Others

(ii) Mother 0. None

1. Primary

2. Secondary

3. University college

4. Others

008. State your parents occupation

(i) Father 1. Office (managerial/clerical)

2. Office (supporting staff)

3. Agricultural work

4. Teaching

(ii) Mother 1. Office (managerial/clerical)

2. Office (supporting staff)

3. Agricultural work

4. Teaching

009. What is the type of union (marriage) of your parents

1. Monogamous

2. Polygamous

3. Single

010. How many children are you in your family (from your mother)? ..... Children

011. Where do your parents usually live?

1. Urban area

2. Rural area

012. Which religion do you belong to?

1. Christianity

2. Islam

3. Other (specify)

013. Which is your denomination

1. Catholic

2. Protestant

3. Moslem

4. Other (specify)

014. How often do you attend church services?

1. once a month
2. Twice a month.
3. Thrice a month.
4. More than three times a month.
5. Non response.

KNOWLEDGE

015. Have you ever heard about family planning?

1. Yes 2.No

016. From what source did you hear about family planning? You can tick more than one source from?

1. Film
2. Friends
3. Relatives
4. Church
5. National Leaders
6. Lecturers
7. Newspapers
8. Radio
9. Books/Pamphlets
10. Television

11. Other (specify)

017. Of the sources you have ticked in 016, which is your most frequent source of information about family planning? .....

018. What methods of family planning have you heard about? You can tick more than one from:-

1. Pill
2. IUD (Intra Uterine Devices)
3. Rhythm
4. Vasectomy
5. Cups and pads
6. Diaphragm
7. Foams/jellies
8. Withdrawal
9. Norplant
10. TL (Tubal Ligation)
11. Injection
12. Abstinence
13. Condoms
14. Breast-feeding
15. Others (specify)

019. Of the methods you have heard about, which ones do you know how they are actually used (that is their application)? Use the list given in 018. .....

ATTITUDE

020. State your attitude towards family planning. Choose from

1. In favour of .....go to Q021
2. Against .....go to Q022
3. Very much against ....go to Q022
4. Neutral
5. Do not know

021. If your answer to Q 020 is "in favour of" give reasons. Choose from

1. To educate children
2. To afford children's demand
3. Mothers health (family welfare)
4. Land problem (unemployment)
5. National welfare
6. Fruitful future
7. Reduces over population
8. High cost of living
9. Any other

022. If your answer to Q 020 is 'Against' or "Very much against". Give reasons. Choose from

1. Against my belief (faith)
2. Dangerous to a woman's health
3. Can render a couple unable to have any children in future
4. Decreases the national population
5. Everyone has right to the desired number of children
6. Encompasses sex and prostitution
7. Reduces pleasure (compels psychological satisfaction)
8. Has no use
9. Any other (specify)

023. Should contraceptives be made available to teenagers?

1. Yes 2. No

024. At what age should contraceptives be available to teenagers?

1. Under 13 years
2. 13 years and above
3. 18 years and above
4. 0 years and above

025. What is your view about a suggestion to introduce family planning as a subject in schools and colleges in the country?

1. Agree 2. Disagree 3. Neutral

026. (i) Suppose your first born is a boy (male) how many more children would you desire?.....

Why?.....

ii) Suppose your first born is a girl (female) how many more children would you desire?.....

Why?.....

027. (a) Have you ever heard of HIV/AIDS?

1. Yes 2. No

(b) Do you know anyone who has or is said to have HIV/AIDS?

1. Yes 2. No

(c) Do you know anyone who have died or was reported to have died of AIDS?

1. Yes 2. No

(d) What effect has the outcry about HIV/AIDS pandemic been on your attitude towards use of contraceptives (especially condoms)?

1. In favour 2. Against 3. No effect

PRACTISE

028. When were you born? State the year .....

029. At what age do you think Kenyan youth (teenagers) start sexual life (that is have their sexual intercourse experience

Males.....years

Females.....years

030. (i) At what age did you have your first sexual intercourse experience? Choose from:

1. 10-14 Years

2. 15-19 years

3. 19 years and above.

(ii) State the specific age as at first experience.....years

(iii) Which year was it when you had your first sexual intercourse?.....

(iv) How many sexual partners do you have?.....

(v) Have you ever had sexual intercourse with them? 1. Yes . No.

(vi) If yes how often ?.....

031. Have you ever used a contraceptive in your life?

1 Yes 2. No

032. If answer to 031 is yes, what age were you when you first used a method (contraceptives) ..... years.

033. Which method was it that you first used .....

1. Pill

2. IUD (Intra Uterine Devices)

3. Rhythm

4. Vasectomy

5. Cups and pads

6. Diaphragm

7. Foams/jellies

8. Withdrawal

9. Norplant

10. TL (Tubal Ligation)

11. Injection

12. Abstinence

13. Condoms

14. Breast-feeding

15. Others (specify)

034. Are you currently using a contraceptive?

1. Yes 2. No

035. If answer to 034 is yes, what method are you currently using? .....

036. If you are currently using a method that is different from the ones you first used. What reason(s) do you have for having changed the method(s).....

037. What prompted you into using a contraceptive.....

038. If you are using a method, where do you go for the method (that is, your source of supply)?

1. Shop/Pharmacy/Chemist

2. Government clinic

3. Private practitioners (clinics)

4. Community Based Distributors

039. Give your reasons for having chosen that source and not others.....

040. In your opinion, who should carry (convey) family planning message to the following groups of people? you can choose more than one from the alternatives provide.

(i) Message to the unmarried (teenagers)

1. Parents
2. Church leaders
3. Teachers
4. Adult educators
5. Community workers
6. Health/medical personnel
7. Friends
8. Local administration officers
9. Other (specify)

(ii) Message to the married couples

1. Parents
2. Church leaders
3. Teachers
4. Adult educators
5. Community workers
6. Health/medical personnel
7. Friends
8. Local administration officers
9. Other (specify)

041. For each of the two categories in 040, choose the most appropriate group to convey family planning message to them (use the listing given in 040)

(i) Message to the unmarried (youth). Most appropriate group to convey message .....

(ii) Message to the married. Most appropriate group to convey message .....