SCHOOL OF PUBLIC HEALTH

COLLEGE OF HEALTH SCIENCES

UNIVERSITY OF GHANA

ADOLESCENTS REPRODUCTIVE HEALTH EDUCATION AND ITS EFFECT ON IN-SCHOOL ADOLESCENTS IN EJISU JUABEN MUNICIPALITY, GHANA.

BY

BELINDA MAWUNYO AKAKPO

A DISSERTATION SUBMITTED TO THE SCHOOL OF PUBLIC HEALTH, UNIVERSITY OF GHANA, LEGON, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF PUBLIC HEALTH DEGREE

AUGUST 2008

DECLARATION

I hereby declare that except for references of other people's work which have been duly acknowledged, this dissertation is the result of my own research, and that this dissertation, either in whole or in part has not been presented elsewhere for another degree.

AUTHOR

BELINDA MAWUNYO AKAKPO

RESIDENT

ACEDEMIC SUPERVISORS

DR. GAMELI NORGBE

DR. SALLY-ANN OHENE

DEDICATION

To the **Akakpo family,** especially to mum **Martina Afi Akakpo** of blessed memory. Mum this was always your dream for me. Although you are not here now, you are always in our heart.

ACKNOWLEDGEMENT

I wish to thank God Almighty for successfully seeing me through this degree and dissertation.

My sincere thanks to my academic supervisors Dr. G. K. Norgbe and Dr. Sally Ann Ohene for their patience and support, and to all my lecturers at the school of Public Health. To my field supervisors, Mr. Jacob Amoah and Dr. Agatha Bonney, I say thank you for your advice and support.

My appreciation to Dks. H. Van Herk, for all the support and all my colleagues at the Lifeline office, especially the Coordinator, Mrs. Susana Mahama and Mr. Agarko Mintah of Reach the Children, Ghana and Mr. and Mrs. Francis Otu- Quayson and family.

I acknowledge the assistance of the staffs of the District Health Directorates of Ejisu Juaben Municipality and the Bosomtwe District at Kuntunase, and my colleagues on field practice.

Many thanks to Mr. G.K. Akakpo my father and my Siblings for all the prayers and support during the difficult times, to my colleagues of MPH/Health Informatics Class 2007/8, Dr. Francis Arko Akoto-Ampaw, Mr. Abubakar Manu, and all my friends.

ABSTRACT

Identification of the sexual and reproductive health (SRH) needs of the adolescent constitute an important component of the efforts to saving the lives of mothers, newborn babies and children. Teenage pregnancy is estimated to have increased from 13.4% in 2005 to 14.5% in 2007, from antenatal reports_in the Ejisu Juaben municipality. We assessed adolescent knowledge on SRH and its association with the intention of the adolescent to make informed choices in their SRH behavior in the Ejisu Juaben municipality. The study objectives were to determine the level of knowledge of adolescents on SRH and what constitute a risky behavior, to find their current and preferred sources of information on SRH and to access attitudes of adolescents towards community ideals.

This cross-sectional study, sampled 365 in- school adolescents aged 10-19 years. Structured questionnaires were administered to respondents.

Some of the key findings were low levels of knowledge on sexual and reproductive health issues like the menstrual cycle and how pregnancy can occur (26.5 %),what is safe sex (30.7%) and STI"s(60.3%) and risky behavior, preference of school (39.3%) and parents (30.5%) as sources of information. Adolescent's attitudes towards premarital sex (89.6%, answered yes) and (17.6 %) were sexually active and (18.6%) had ever taken alcohol. Peer pressure and attitude of parents towards the adolescent at home were seen by adolescent as risk factors for engaging in a risky behavior.

The study suggests the need for the district health administration to promote further collaboration, to provide funding and support for programmes. All stakeholders interested in

ASRH should introduce and improve initiatives that involve adolescents, in creating awareness in schools, health facilities, churches, community centers, homes and other places. These educational activities should encourage all individuals to be active participant in the drawing and implementation of the programme.

Keywords: Adolescents, sexual and reproductive health, health education, cross-sectional, Ejisu Juaben, Ghana.

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LIST OF ABBREVIATIONS

AYA	African Youth Alliance
WHO	World Health Organization
ASRH	Adolescent Sexual and Reproductive Health
ICPD	International Conference on Population and Development
SRH	Sexual and Reproductive Health
DHMT	District Health Management Team
GHS	Ghana Health Service
STI's	Sexually Transmitted Infections
HIV	Human Immunodeficiency Virus
OR	Odds Ratio
CI	Confidence Interval
OPD	Out Patient Department
RH	Reproductive Health
GES	Ghana Education Service

DEFINITION OF TERMS

- **Out of school adolescent:** adolescents who have never attended school, those who dropped out of school for various reasons, young people involved in some form of apprenticeship, the unemployed or home bound.
- **In-school adolescents:** adolescents and young people in primary, junior and senior high schools, training institutions and tertiary institutions.
- **Adult in the family:** Any elderly person in the family apart from parents and siblings.
- **Adult in the community:** Any elderly person in the community.
- **Risky behavior:** Defined by the increased risk of a negative outcome.

CHAPTER ONE

1.0 INTRODUCTION

1.1 BACKGROUND INFORMATION

Reproductive health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. Where as reproductive health care is defined as constellation, techniques and services that contribute to reproductive health and wellbeing by preventing and solving reproductive health problems (Lancet, 2006:12).

Adolescence is a period of curiosity, when young people are receptive to information about themselves and their bodies, when they begin to take an active part in decision making. WHO defines an adolescent as anybody from the ages of 10 to 19 years (WHO, 2003:5).

Adolescent sexual and reproductive health needs has become an issue of importance in many countries over the years, as reproductive health has been realized as an important health need for saving the lives of mothers, newborn babies and children. It is for this reason that the 4th international conference on population development (ICPD) held in Cairo in 1994, there was a call for universal access to sexual and reproductive health services by 2015 (Lancet, 2006:2).

Today's adolescents are tomorrow's parents, teachers and community leaders. To invest in their health today will help them adopt healthy practices that will last them a lifetime (WHO, 2003:7).

In the world over adolescents are known to engage in activities like sex, drug abuse and alcoholism which put them at risk of sexual and reproductive health problems like early pregnancy, unsafe abortion, sexually transmitted infections (STI's) including HIV, sexual coercion and violence. In addition, in some cultures, girls face genital mutilation and early marriage which have severe consequences on their reproductive health (WHO, 2006:1).

Risky sexual behaviors are defined by the increased risk of a negative outcome, which can take two pathways: risky sexual behaviors are those which increase the chance of contracting or transmitting disease, or increase the chance of the occurrence of unwanted pregnancy. Abstaining entirely from sexual activity will completely eliminate these risks. Unsafe sex remains second among the top ten risk factors in the global burden of all diseases caused globally. (WHO, 2002:1).

In Ghana, young people aged 10 to 24 comprises one-third of the country's population. Many attempts have been made in this regard to solving adolescent reproductive health problems. The government has shown its commitment through a comprehensive framework for adolescent sexual and reproductive health (ASRH) in the Ghana's Adolescent Reproductive Health Policy formulated in 2000. With a 3.4 percent, HIV prevalence among young people ages 15 to 24 and a 95% awareness rate in HIV, it is yet to be translating into widespread behavioral change (AYA, 2006:13).

In Ghana many attempts have been made in regard to solving adolescent reproductive health problems. The Ghanaian adolescent still remain vulnerable to HIV/AIDS in large parts of the

country. This is because they do not believe they are at risk or their understanding of the risk does not prompt them to take action to protect themselves (Awusabo-Asare K, Abane AM and Kumi-Kyereme A 2004:5).

In order to understand the current situation and environment of adolescents in regard to their sexual and reproductive health needs, research into the current knowledge, sources of information on sexual and reproductive health and their attitudes are very necessary. Over the years, these processes have been faced with a lot of obstacles which has made education on adolescent sexual and reproductive health issues quite ineffective. It cannot be said with certainty whether all societies have benefited from these programs as discussing adolescent sexuality has been a sensitive subject in most societies over the years. The benefits of these discussions are not only of significance to public health alone, but also of social and economic importance to communities and the nation as a whole (Hessburg, Awusabo-Asare et al,2007:31).

1.2 PROBLEM STATEMENT

Adolescents' reproductive health was ranked a priority problem of the Ejisu Juaben, Municipal Health Management Team (DHMT), 2006, health sector review report. Teenage pregnancy and early sexual debut were major health concerns in the municipality.

The municipality has over the years seen interventions aimed at improving the sexual and reproductive health of the adolescent. These interventions included, Virgins clubs, training of peer educators, and provision of youth friendly corners by the African Youth Alliance (AYA) program in 2000-2005(AYA, 2004:5).

Despite these interventions, adolescent behavior has not improved towards making informed choices. In 2005, adolescent pregnancy rate was 13.4% in the municipality. However, evidence of teenage pregnancy rates in 2007 showed an increase to 14.5% (Ejisu- Juaben, DHMT, 2007).

The DHMT therefore wanted to find out the reasons for the increase in the teenage pregnancy rates.

This study sought to identify the level of knowledge of adolescent on sexual and reproductive health, their source of information on SRH and how these might be contributing to their attitudes in relation to knowledge on what constitute a risky behavior.

1.3 JUSTIFICATION OF STUDY

Adolescence is considered a period of risk taking. Evidence of risky sexual behaviors requires that critical efforts are been taken to look again at what can be done to reduce their risk seeking behavior after all the health education programs. It is in line with this that the government of Ghana published an Adolescent reproductive health document in 2000 and the National HIV/AIDS and STI's policy in 2001(Awusabo-Asare et al 2004: 4).

These policy interventions have provided comprehensive strategies for addressing adolescent's needs through activities such as; youth friendly facilities and services, promoting support and care for people living with HIV/AIDS and education in schools.

Numerous, research interventions have shown that adolescent are still sexually experienced before they turn twenty years. This exposes them to the risk of HIV/AIDS and other STI's and unplanned pregnancies. It is known that the gap between first intercourse and first marriage leaves a window of time when adolescents are potentially at risk because they maybe involve in sexual experimentation, relationship instability and lack of access to health services (Awusabo-Asare et al 2004: 28).

These and many more factors like low contraceptive use among adolescents, suggest the need to further research into adolescent sources of information, their level of knowledge and attitude toward reproductive health.

The survey findings will therefore, help stakeholders redesign programs on adolescent reproductive health education which will help the adolescent make informed choice on sexuality and reproductive health. It will also help the DHMT formulate plans of action to make the reproductive health programs at hospitals and clinics more adolescent friendly.

1.4 OBJECTIVES OF STUDY

The objective of a study tries to relate the reasonable and expected contributions of the study to broad social, economic and health concern. This will justify why it is necessary to research in the problem and will further have specific objectives which represents a promise by the investigator that certain activities will take place and specific variables will be examined. Fisher A and Foreit J, (2002:2).

1.4.1 General Objective

To determine the level of knowledge of the adolescent on Sexual and Reproductive health issues and how it has affected their attitudes and knowledge in these times of the HIV epidemic.

1.4.2 Specific Objectives

1. To determine the level of knowledge of the in-school adolescent on sexual and reproductive health.

2. To determine the level of knowledge of the in-school adolescent on risky behavior.

3. To identify the sources of information on sexual and reproductive health among in-school adolescent in the communities.

4. To explore the attitude of in – school adolescent towards sexual and reproductive health ideals of the community.

CHAPTER TWO

2.0 LITERATURE REVIEW

A literature review discusses published information in a particular subject area, and sometimes information in a particular subject area within a certain time period. A literature review can be just a simple summary of the sources, but it usually has an organizational pattern and combines both summary and synthesis. A summary is a recap of the important information of the source, but a synthesis is a re-organization, or a reshuffling, of that information.

2.1 INTRODUCTION

Several studies have been done in the areas of adolescent sexuality and reproductive health education activities and it's has been found out that the source of knowledge on sexuality and reproduction does vary from country to country. This knowledge however has not impacted on the behavior of the adolescent. The problem at hand is that, although adolescents may have information on their sexuality and reproductive health they scarcely use this information. Adolescent attitude toward sexual behavior in the face of the HIV/AIDS epidemic is still risky, in that they still have unprotected sex which result in pregnancies, STI's and many more.

2.2 KNOWLEDGE OF IN-SCHOOL ADOLESCENT ON SEXUAL AND REPRODUCTIVE HEALTH ISSUES

The knowledge base of the adolescent on sexual and reproductive health is said to be high and this has being shown in a lot of research like in Asia, (Bhakta,2002:111), realized that knowledge levels concerning contraceptives exceed 90% among adolescent girls surveyed in all of the countries except the Lao People's Democratic Republic, Myanmar and Uzbekistan. However, adolescents knowledge of contraception is relatively lower as compared with women aged 20-24. It is was also evident that in countries where the knowledge level is very high, there is only a small difference in contraceptive knowledge between females in the age groups 15-19 and 20-24.

Similarly a survey in Ghana, (Hessburg, Awusabu-Asare et al, 2007:14) to find, knowledge about sexual and reproductive health was assessed using a composite measure based on respondents' awareness of a woman's fertile period, ability to reject several popular misconceptions about pregnancy e.g., knowing that a female can get pregnant as a result of her first sexual experience and familiarity with at least one modern method of contraception.

The study, found that 90% of adolescent respondents reported that they have heard of at least one modern contraceptive method. The male condom was familiar to (88% of females and 91% of males), the female condom (70% of females and 73% of males), the injectable (57% of females and 56% of males) and the pill (53% of both females and males). The high level of knowledge about the female condom was partly due to nationwide promotional campaigns. About one in five adolescents were aware of emergency contraception, a highly effective method that is used

after intercourse. However, adolescents' familiarity with contraceptives did not match the depth of knowledge on such matters as how pregnancy occurs.

Among adolescents aged 15–19, only 28% of females and 21% of males had this detailed knowledge about pregnancy prevention. But among 12–14year-olds, only 12% of females and 6% of males had this level of knowledge.

However among 15–19- year-olds in rural areas, only 21% of females and 14% of males had knowledge about pregnancy, as measured by their awareness of a woman's fertile period and their ability to reject popular misconceptions about pregnancy, compared with 35% of females and 28% of males in urban areas.

With regards to knowledge of sexually transmitted infections (STIs), Vernon (2004:24) in another survey in Mexico, found that less than one-half of the respondents had heard about STIs. Slightly more females than males knew about them. Less than one-quarter of those 10-14 years had heard of STIs, compared to four-fifths of those aged 15-19.

Those who had heard of STIs were asked about the ways that a person could become infected. Sex with an infected person was mentioned by 47 percent, sex with several persons by 25 percent, not using protection during sexual intercourse by 26 percent, and other incorrect prevention means by 15 percent. There were only slight differences between females and males. There were no consistent differences in favor of the experimental groups over the control group. Surprisingly, those in the 10-14 year age group were almost as knowledgeable as those in the 15-19 years age group about STI prevention.

Eighty-five percent of the respondents had heard of HIV/AIDS, 76% of those aged 10-14 and 96% of those aged 15-19. When they were asked about means of transmission, 83 percent mentioned sexual relations, more than 30 percent mentioned blood transfusions, 22 percent mentioned use of unsterilized needles, and three percent mentioned mother to infant transmission during pregnancy and birth.

Hessburg, et al, (2007:15) survey in Ghana found among 15–19-year-old respondents, only 49% of females and 56% of males had heard of at least one STI other than HIV/AIDS.

2.3 LEVEL OF KNOWLEDGE OF IN-SCHOOL ADOLESCENTS ON RISKY SEXUAL BEHAVIOUR

Information and counseling are important for reducing young people's risks and vulnerability. However, on their own this may not be enough, if they are already engaged in risk activities. The right perspective is the most important, for example, is not an adolescent's use of a condom to prevent an STI's or HIV/AIDS that is the most important, but how he or she makes a decision about life and his own reproductive and sexual health. The gaps at reducing adolescent risk seeking behavior, maybe as a result of lack of awareness or denial that the behavior itself is harmful or risky (WHO, 2004:14).

In a study in Minnesota (Rock EM et al, 2003) 2001 student were surveyed. Bivariate and multivariate relationships between perceived knowledge about sex and sexual behaviors were examined. Students with low perceived knowledge were less likely to be sexually experienced (OR=0.22, CI=0.17-0.29, females, OR=0.70, CI=0.59-0.82, males, P=0.00). Among sexually

active students, those with low perceived knowledge also had significantly higher odds of engaging in risky sexual behaviors. Sexually experienced females with low perceived knowledge were more likely to report not talking with their partners about STIs (OR=1.83, CI=1.1-3.16, P=0.02), a history of pregnancy (OR=2.87, CI=1.59-5.18, P=0.00), and had higher numbers of male (P=0.03) and female (P=0.00) sexual partners. Sexually experienced males with low perceived knowledge were more likely to report not talking with their partners about pregnancy (OR=1.43, CI=1.11-1.84, P=0.01), pregnancy involvement (OR=2.22, CI=1.65-2.95, P=0.00), inconsistent use of birth control (OR=1.30, CI= 1.01-1.68, P=0.04), inconsistent use of condoms (OR=1.79, CI=1.38-2.32, P=0.00), not using a condom at last intercourse (OR=1.58, CI=1.22-2.04, P=0.00), and had a higher numbers of male (P=0.00) and female (P=0.00) sexual partners.

In a further study (Kaiser HJ, 2002:1) 23% (5.6 million) of sexually active teens and young adults' ages 15-24 in the United States report having had unprotected sex because they were drinking or using drugs at the time. Twenty-four percent of teens ages 15-17 say that their alcohol and drug use led them to be more sexually active than they had planned.

The study also estimated in 1998 that of the nearly 15 million new cases of sexually transmitted diseases each year, 25% (3.8 million cases) occur among youth ages 15-19. Teens that use alcohol are seven times more likely to be sexually active, putting them at a greater risk for STDs.

Risky sexual behaviors among adolescents seem to be compounded by a widespread sexual double standard in many societies. Such a double standard accepts or even encourages promiscuity among men, but strictly restricts women's sexual behavior. In Asia (Bhata, 2002: 107-109) found that peer pressure among adolescent men and sexual experiences is one example of the double standard. For example, approximately 40% of young men in rural Thailand said

they had their first sexual intercourse because they wanted to be as experienced as their friend's .On the other hand, young women in Bangkok expressed concern about being labeled as loose and complained.

The study also identified some factors that can lead to risky reproductive health-related behavior among adolescents in general, particularly among unmarried adolescents. These factors were as follows: First, adolescents often lack access to sufficient and correct information. Cognitive distortions and a sense of non-susceptibility lead to most adolescents been uninformed A second factor in risky reproductive health-related behavior concerns the increasing significance of peer pressure. Growing social acceptance of premarital sex plays a major role in reproductive health-related decision making among adolescents and other young people. As adolescence is a developmental period of physical transition and identity formation, the struggle for individual autonomy and the social construct of masculinity or femininity render teenagers susceptible to peer pressure. The influence of that pressure is increasing in the context of the erosion of traditional parental control over premarital sexual behavior and the declining role of family members, while parents are perceived to be the logical source of information; they often do not discuss sexual issues with their children because they are embarrassed by the subject. As a result, the family is no longer the prime reference group in reproductive health-related decisions, since teenagers tend to value the opinions of their friends more highly.

The third was, inadequate access to youth-friendly health services as a major barrier for young people and adolescents often falling through the cracks. Finally, economic constraints can influence the behavior of young people in some cases.

2.4 SOURCES OF IN-SCHOOL ADOLESCENT INFORMATION ON SEXUAL AND REPRODUCTIVE HEALTH

Adolescents are not limited, on their information source when it comes to SRH. In Tehran (WHO, 2007:2) they found that boys in Republic of Iran sought information on sexual and reproductive health from sources outside the home. Adolescent boys cited classmates, friends (26%) and teachers, school counselors and other health-care providers (25%) as the most important sources of information on puberty and sex. These sources were also, their preferred sources.

However, in Malawi, Alister (2004:23), found that the three major sources of sexual and reproductive health information for young people were youth clubs (38%), the radio (29%) and government health facilities (23%). The other sources also mentioned by the adolescents were the print media (11%), community-based distribution agents (5%), non-governmental organizations (4%), parents (5%), friends (6%) and District Youth Offices (1%).

In another study (WHO,2006:3) among high school students aged 15–16-year-olds and the college students aged 18 and 19 years of age, in China, 67% in the intervention group browsed the web site at least once a month during the intervention period and 94% ever-browsed it. Overall, the study found that about 44% of young people in the study access the internet at their school or college, 36% at home and the remaining 20% at the internet cafés. The percentage increase in total knowledge scores was almost three times greater in the intervention than the control group. Males' and females' knowledge scores showed similar changes, although there were significant differences between them. In China, the provision of sex education via the

internet is feasible and effective as it was regarded as more user friendly convenient and flexible. The study refutes fears that sex education will encourage sexual activity.

In Ghana the story was not different as Hessburg, et al (2007:22) found 99% of adolescents who had ever attended school said it was important for family life education to be taught in schools, and about two-thirds of adolescents did not think that family life education encourages adolescents to have sex. Among 15–19-year-olds, 58% of females and 46% of males reported that they had received family life education in school; among 12–14 year olds, 41% of females and 28% of males said they had received family life education. Adolescents preferred to receive information on sexual and reproductive health from professional sources, such as the mass media, teachers and health care providers, rather than from parents.

Forty percent, of females and 43% of males reported that they listened to the radio almost every day, and another 34% of females and 37% of males said that they listened to the radio at least once a week. Although 57% of females and 56% of males watched television at least once a week, about one in four adolescents (27% of females and 25% of males) did not watch television at all.

The Internet barely ranked as a source of information for adolescents in the Hessburg et al study. About half of adolescents who had ever attended school had not heard of the internet, and only 6% of females and 11% of males had ever used the internet for any purpose. Adolescents do not commonly obtain information on sexual and reproductive health issues from newspapers. More than 60% of both females and males do not read newspapers at all.

In the publication (Adolescents in Ghana,2004:1),however the following sources were found for SRH information, among adolescents aged 15–19 who have heard of HIV/AIDS, the reported sources of information for females and males, respectively, where , radio (66% and 68%); workplace (52% and 50%); television (49% and 46%); print (13% and 18%); friends and relatives (7% and 5%); and health workers (2% and 3%).

2.5 ATTITUDE OF ADOLESCENT TOWARDS SEXUAL AND REPRODUCTIVE HEALTH IDEALS OF THE COMMUNITY

Many researchers have examined the interplay between risk and protective factors in the quest to explain the potential for adolescents to engage in behavior that can place them in a state of personal harm Loeber (2002:4). This behavior maybe interpreted as problem behavior and can take place within the personal, biological, psychological, social and environmental context of the adolescent's life experience.

In Ghana, Afenyadu D and Goparaju L, (2003:10), in a survey in Dodowa, found pre-marital sex among adolescents, to be a fairly common phenomenon. About 9 in 10 (88%) of all sexually experienced adolescents were never married. Of these never married, 54 percent of the males and 32 percent of the females had had sex. Of those ever married, 58 percent of the males and 83 percent of the females reported that their first sexual partner was not their spouse.

A number of reasons were adduced for the practice of pre-marital sex among adolescents in the Dodowa community. The main reasons identified from the present research are: money, sexual pleasure and peer pressure.

A study by Kaberege RN, (2001:2) of 178 adolescent males, 88 Blacks and 90 Hispanics, aged 13 to 19 years selected from a database of a 1996 Youth Survey was conducted to assess sexual attitudes and behaviors, and to investigate the relationships of family and peer factors in San Bernardino County, California. Nearly 67% of the samples were sexually experienced. Of them, 71% were Blacks and 63% were Hispanics. Approximately, 36% of Blacks and 33% of Hispanics reported being sexually experienced by age 13 years. Almost 43% of Blacks and 40% of Hispanics reported that they had sexual intercourse during the month preceding the survey. Both Black and Hispanic adolescent males who had been sexually experienced reported a strong belief that sexual intercourse validates masculinity and increase closeness to a girlfriend. Findings from the multivariate logistic regression analysis indicated that, as exposure to the family and peer risk factors increases, so does the likelihood of sexual involvement in both Black and Hispanic respondents. Black adolescent males were more likely to be influenced by having a father who had been a teen dad (OR = 2.8), whereas Hispanics were more likely to be influenced by having a sibling who had been a teen parent (OR = 9.8). Black and Hispanic respondents who perceived peer pressure as a reason to engage in sexual behaviors were twice as likely to engage in sexual behavior themselves, when compared with those who were not influenced by their peers.

A further study by (WHO, 2006:1) of 1,385 males aged 15–18 in Tehran showed, 28% of the sample reported having engaged in sexual activity. Sexual experience was associated with older

age, access to satellite television, alcohol consumption and permissive attitudes toward sex. Substantial proportions of respondents held misconceptions regarding condoms, STIs and reproductive physiology. Attitudes towards premarital sex were more permissive among respondents who were older, were not in school, and had work experience, had access to the internet or satellite television, lived separately from their parents, or reported having used alcohol, cigarettes or drugs.

In Ghana, a nationwide study, (Karim, Magnani et al, 2006:14) found 41% of female and 36% of male youth reported being sexually experienced. On average, sexually experienced youth had had fewer than two partners; only 4% of these females and 7 .7 % of males had had more than one sexual partner in the three months before the survey. Although Ghanaian youth are knowledgeable about condoms, only 24% of sexually experienced males and 20% of females reported consistent condom use with their current or most recent partner. A sizable number of contextual factors and attributes of youth themselves were associated with sexual behaviors, while individual characteristics were stronger predictors of condom use.

Fatusi and Blum, (2008:1) in a study in Nigeria found that 8% males; 22% females were sexually experienced, representing a fifth of adolescent respondents. In the South 24.3% males and 28.7% females had initiated sex compared to 12.1% of males and 13.1% females in the North ($p < 0.001$). In the first model, only religion was significantly associated with adolescent sexual initiation among both males and females; however, educational attainment and age were also significant among males. In the second (psychosocial) model factors associated with adolescent

sexual debut included more positive attitudes regarding condom efficacy among females. Conversely, personal attitudes in favor of delayed sexual debut were associated with lower sexual debut among both males and females. Higher level of religiosity was associated with lower sexual debut rates only among females.

CHAPTER THREE

3.0 METHODOLOGY

3.1 TYPE OF STUDY

The study was a cross - sectional study.

3.2 STUDY AREA

The study area was Ejisu-Juaben Municipality, one of the twenty one districts/municipalities in the Ashanti Region of Ghana. Divided into five sub-municipalities; the municipality has an estimated 2007 population of 151,761 distributed in 81 communities. Ejisu, the municipal capital is about 12 km from Kumasi the Regional Capital of Ashanti Region. The municipality shares boundaries with 6 other districts. At the North East and North West borders are Sekyere East and Kwabere Districts respectively. South are Bosomtwe Atwima Kwanwoma, and Asanti Akyem South; its eastern boarders are shared with Ashanti Akyem North District and the west is Kumasi Metropolis. The municipality stretches over an area of approximately 637.2 sq km.

The municipality lies within the forest belt of the country. The vegetation is mainly tropical rain forest with transitional zone of tropical savannah. Mean temperature is 27^0C with annual rainfall between 1500mm – 200mm. The rainfall pattern follows two seasons-March – July (major season) and September – November (minor season) with a sharp break in August each year.

The first class Accra-Kumasi road network stretches through Nobewam to Fumesua in the municipality. Ejisu to Juaben, Ejisu to Kwaso and Bomfa Nkwanta to Achiase are all second class tarred roads. Communication in the municipality is possible through various telephone networks operating in the country.

The main economic activity of the populace is farming. Cassava, plantain and Maize are the major crops grown. Bonwire in the municipality is a major Kente producing community and a tourist destination point. Because of its proximity to Kumasi, trading is also very prominent in the municipality. Most women in the municipality do their daily trading activities in the capital, Kumasi.

Health care services are provided to the population through 23 public and private health facilities. This comprise of 5 hospitals, 5 health centers, 3 public clinics and maternity homes, 4 mission clinics and 6 private maternity homes. The municipality also provides preventive health services through 81 outreach clinics evenly distributed in the communities.

The doctor/patient ratio is 1: 30,352 compared to the Nurse/patient ration of 1:3,994. A total of 155 professional and non-professional staff provides curative and preventive health care to the population.

OPD attendance per capita saw a marginal increase from 5.2 to 5.3 between 2004 and 2006 and malaria continue to be the leading cause of OPD attendance.

Major concerns of the municipal health directorate are: to strengthen community based surveillance system; to improve EPI activities in the district, and establish the community based growth promotion program. To improve efficiency of health care, the authority also targeted capacity building through in-service training. Strengthening ties with the municipal Assembly towards the scaling up of the District Mutual Health Insurance Scheme is another priority for the directorate. Improvement on the malaria & guinea-worm program, Strengthening of STI/HIV/AIDS campaign and making Ghana poliomyelitis free country are other priority areas of the district.

3.3 STUDY LOCATION

The study was carried out in three sub municipalities, Ejisu, Juaben and Kwaso all in the Ejisu Juaben municipality.

3.4 STUDY POPULATION

The study populations in this study were, in-school adolescents aged 10-19years at the Ejisu Juaben municipality. These adolescents were selected randomly from the upper primary class, junior high and senior high classes in selected schools in the sub- municipality.

3.5 SAMPLE SIZE

Using the formula: Sample Size = n = N/1+N (e) ^{2,}

N = an assumed population (20,000,000), e = the margin of error (.05)^2

n = Sample Size, n = 20,000,000/1+ 20,000,000(.05)^2 = 20,000,000/50,001

N = 399

3.6 SAMPLING METHOD

A random sampling (lottery style) technique was used to select communities/circuits. One senior high school per circuit was selected base on the availability of a senior high school in the municipality. Using the random sampling technique two schools each for junior high and

primary schools respectively were selected, one public and one private school for equal representation of adolescents. Whiles at the schools, the registers were used for random sampling of pupils.

3.7 DATA COLLECTION TECHNIQUES /TOOLS

A structured pre-tested questionnaire was administered to participants by the researcher. The questionnaires were self administered my pupils under supervision. Respondent were spaced and group in one classroom depending on the size of the classroom available. Questionnaires were read and explained for them to fill out.

3.8 VARIABLES

- **Dependent variable**: Level of Knowledge
- **Independent Variables :** Sex, age
- **Sexual and Reproductive health variables:** safe sex, how pregnancy occurs, knowledge on menstruations in relation to safe periods, and STI's.
- **Sources of information:** media, parents, friend/peers, school, siblings
- **Risky behaviours:** having sex without a condom, smoking cigarette, marijuana and drinking alcohol

3.9 DATA PROCESSING AND ANALYSIS

Data from questionnaire were cleaned, entered and analyzed by EPI info version3.3.2.

3.10 ETHICAL CLEARANCE

Ethical clearance for the study was obtained from the GHS ethical review committee and permission obtained was from District Educational Service of the Ejisu Juaben municipality. Consent forms were read and given to respondents and signed by two representatives of each group of adolescences.

3.11 QUALITY CONTROL

The following quality control measures were taken:

- Pre-testing was done at Fumesua Anglican primary and junior high school and at the Church of Christ senior high school at Adadietem outside the selected sub districts.
- All questionnaires were checked for completeness.
- There was double checking
- Data cleaning

CHAPTER FOUR

4.0 RESULTS

4.1 INTRODUCTION

A total of 365 respondents 10-19years were interviewed during the period from June to July, 2008. This constituted 100% of all respondents who were adolescents attending various schools in the municipality.

Of the total 365 in-school adolescent's respondents, 96 (26.3%) were upper primary pupils, 120(32.9%) junior high pupils and 149(40.8) senior high pupils.

For the purposes of analysis, adolescents were grouped into age categories, 10-13, 14-16 and 17-19 years. The mean age for adolescents was 14.9 years. All respondents agreed to participate in the study but four (4) were excluded, because of the exclusions criteria of 10- 19 years. These respondents were 9years and 20years respectively.

For residential patterns the highest percentage of (48.6%) stayed with both parents whiles (30.5%) stayed with mothers. One third of adolescents (34.2%) could not identify the educational levels of their parents. For those who could identify the educational levels, a higher percentage of parents attended school up to the secondary level before dropout to pursue a profession. These socio-demographics of adolescents have been further elaborate on in the tables on the next page from tables 4-1 to 4-7.

4.2 SOCIAL DEMOGRAPHICS

The social demographics for the in- school adolescents in this study showed varied differences.

Item 1: Age Characteristics

The table 1 depicts the age distribution of respondents.

Table 1: Age distribution of adolescents

Age group	Frequency(N= 364)	Percentage (%)
10 – 13	121	33.2
14 - 16	120	33.0
17 - 19	123	33.8
Total	**364**	**100.0**

The mean age of respondents in this study is 14.8626.A greater percentage of respondents were between the ages of 17-19 at a percentage of 33.8% (N= 123), followed by the age group 10-13 at a percentage of 33.2% (N=121).

Item 2: Sex

Table 2: Sex distribution of adolescents

SEX	Frequency(N= 365)	Percentage (%)
Male	188	51.5
Female	177	48.5
Total	**365**	**100.0**

The table above 2 shows the sex distribution of adolescents. Majority of the respondents 51.5% (N= 188) were males whiles 48.5% (N= 177) were females.

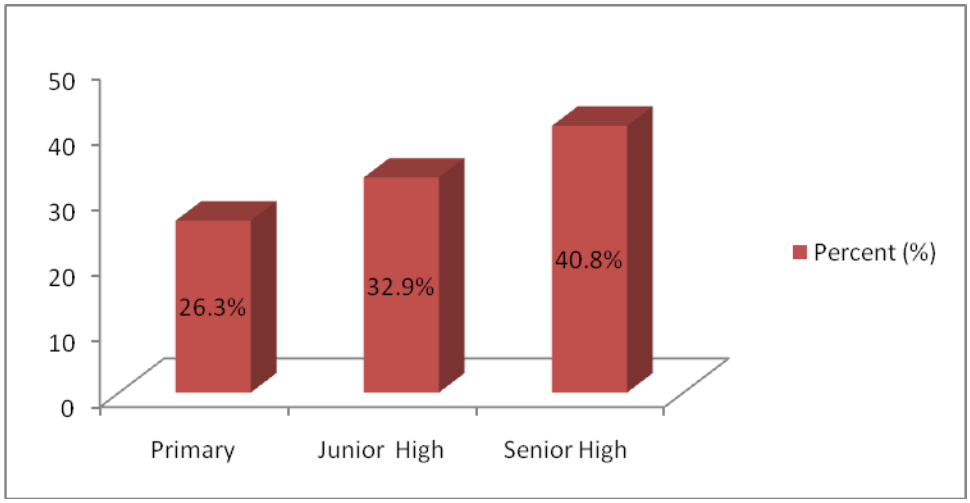

Figure 1: Educational level of adolescents

All the 365 respondents answered questions, with a greater percentage of respondents been in the senior high levels as shown in figure 4-1, above.

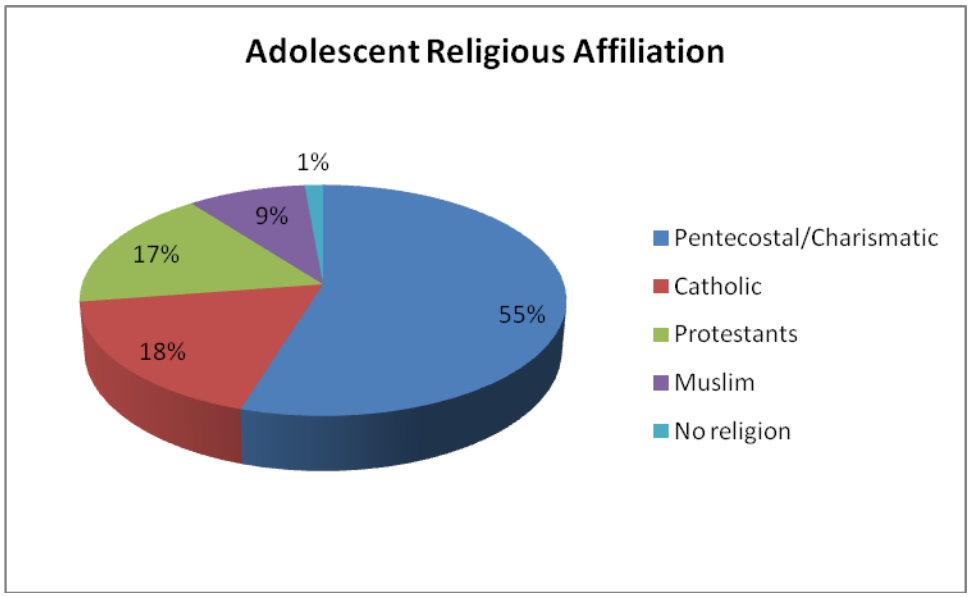

Figure 2: Adolescents religious affiliation

A greater percentage 54.8% (N= 200), of respondents affiliated themselves to the Pentecostal or charismatic religion, whiles only 1.4% (N=5) had no religious affiliation at all, as can be shown in fig 2 on the previous page.

Table 3: Residential patterns of adolescents

	Frequency (N = 364)	**Percent** (%)
Both parents	177	48.6
Mother only	111	30.5
Father only	25	6.9
Sister and Brother	13	3.6
Grand mother	11	3.0
Aunt	10	2.7
No relative	9	2.5
Uncle	5	1.4
Grand father	2	0.5
Don't know	1	0.3
Total	**364**	**100.0**

Residential patterns of adolescents as shown in the table above, depicts that most respondents stayed with both parents 48.6% (N= 177) whiles only 2.5% (N= 9) were staying with no relatives but on their own. One respondent did not answer the question on residential patterns and one did know.

Table 4: Parents /Guardians Educational Level

	Frequency(N = 365)	**Percent** (%)
No education	27	7.4
Less than primary	19	5.2
Primary	46	12.6
Secondary	94	25.7
Tertiary	54	14.9
Don't know	125	34.2
Total	**365**	**100.0**

One third of adolescents 34.2% (N= 125) could not identify the educational levels of their parents or guardians. For those who could, parents or guardians who attain secondary or high school level of education levels represented 25.7% (N= 94) followed by tertiary level at 14.9% (N= 54). Parents without any formal education were 7.4% (N= 27).

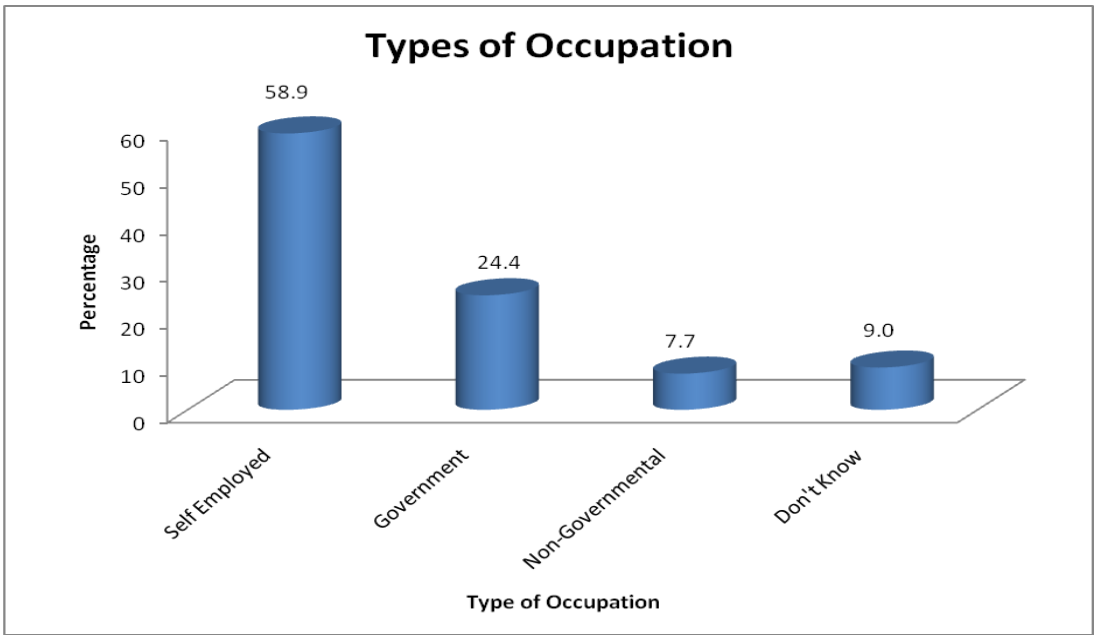

Figure 3: Types of Occupation of Parents/Guardian

4.3 IN- SCHOOL ADOLESCENTS LEVEL OF KNOWLEGDE ON SEXUAL AND REPRODUCTIVE HEALTH ISSUES

Result for adolescent level of knowledge was generated using variables like, knowledge on menstruation, safe sex, STI's, how pregnancy happens and personal hygiene for this study. Generally, adolescent's level of knowledge in the study was not deep to enable them make informed choices on reproductive health.

The mean age at which adolescents started attending sex education classes was 12.8 years. From the total number of respondent, 25.3% (N= 177), remember discussing something on STI's, 24.8% saying (N= 173), No to sex, 23.8% (N= 166), how pregnancy happens, how to prevent pregnancy 18.2% (N= 127) whiles 7.9% (N=55) did not remember any topic discussed.

Fig 4 depicts the knowledge level on selected reproductive health issues.

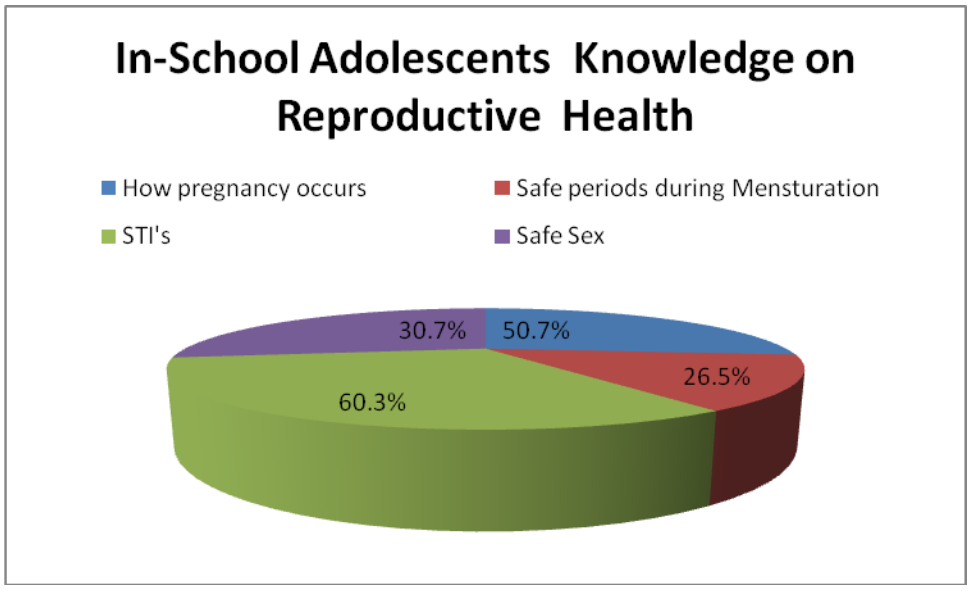

Figure 4: Adolescents level of knowledge on reproductive health issues

Seventy –seven percent of respondents said they have heard about STI's before, but when asked further questions, only 60.3% could correctly identify it as diseases acquired through sexual intercourse and 26% of respondent did know what kind of disease it was.

On the second variable of safe sex 52.5% said they heard about safe .Asking further question to know if they really understood what safe sex is 25.2% identified abstaining from sex as safe sex whereas 22.9%said using condoms during sexual intercourse and 42.2% did not know anything about the safe sex.

Subsequent questions on ways of preventing pregnancy, showed two thirds of respondents answering to condoms. All alternatives like safe days showed low percentages of 20.5% and contraceptives 11.7%. Most respondent had little knowledge of the other means that one can use to prevent pregnancy.

4.4 IN-SCHOOL ADOLESCENT LEVEL OF KNOWLEGDE ON RISKY BEHAVIOUR

Risky behaviors were defined by the increased risk of a negative outcome, which can take two pathways: risky sexual behaviors are those which increase the chance of contracting or transmitting disease, or increase the chance of the occurrence of unwanted pregnancy. Out of the 365 respondents, 49% did not know what a risky behavior is, as shown in fig 5 below.

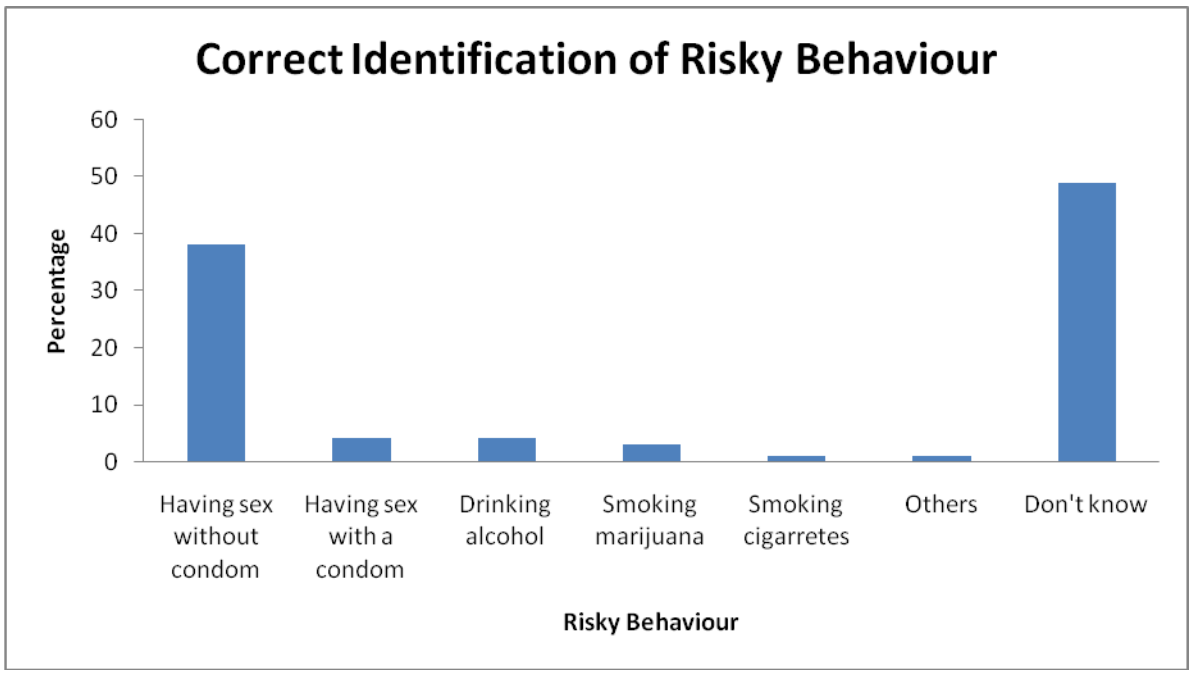

Figure 5: Knowledge on what constitute a risky behavior

Various factors were identified as contributing to adolescents engaging in such behaviors. This can be seen in table 5 and 6. Peer pressure was the great risk factor, 25.6%, for risky behavior where as for the fun of having sex 26.3% was a high risk factor for engaging in a risky sexual behavior.

Table 5: Factors that influence adolescents to engage in risky behavior

	Frequency(n)	**Percentage (%)**
Peer pressure	93	25.6
Attitude of parents at home	56	15.4
Financial problems	37	10.2
Drunkenness	10	2.8
Don't know	167	46.0
Total	**363**	**100.0**

Table 6: Factors that influence adolescents to engage in risky sexual behavior

	Frequency(n)	**Percentage (%)**
For the fun of it	96	26.3
To satisfy peers	52	14.2
For monetary gains	29	8.0
Lack of knowledge	1	0.3
Don't know	187	51.3
Total	**365**	**100.0**

Respondents further went on to suggest ways by which they think these behaviors could be reduced among adolescents. Although 39.4% of respondents did not have any ideas to suggest, 33.4% suggested an increase in sex education sessions in schools. For suggestion to reduce the risk of engaging in risky sexual behavior, education on risky behavior and its consequences was their first suggestion with 24.7%, although 42.9% did not have any suggestions. Tables 7and 8 on the next page shows more.

Table 7: Things to do to prevent the adolescent from engaging in risky sexual behavior

	Frequency (n)	**Percentage (%)**
Increase sex education sessions in schools	128	33.4
Education on peer pressure	28	7.3
Parental guidance	26	6.8
Encourage condom youth among sexually active youth	17	4.4
Provide entertainment and clubs	8	2.1
Education for the youth	6	1.6
Provide employment	1	0.3
Respect for the youth	1	0.3
Youth to avoid pornography etc	5	1.3
Punishment	12	3.1
Don't know	151	39.4
Total	**383**	**100.0**

Table 8: What should be done to educate the youth on risky behavior

	Frequency(n)	**Percent** (%)
Education on risky behavior and consequences	95	24.7
Avoid bad peers	40	10.4
Parenting	27	7
Education for the youth	19	4.9
Sanction	16	4.2
Age limit to access alcohol	11	2.9
Respect for the youth	6	1.6
Entertainment	3	0.8
Provide employment	2	0.5
Don't know	165	42.9
TOTAL	**384**	**100.0**

4.5 IN-SCHOOL ADOLESCENTS SOURCES OF INFORMATION ON SEXUAL AND REPRODUCTIVE HEALTH ISSUES

In all 43.6% of respondents could identify at least one source of information on sexual and reproductive health issues. From fig 6 below, the highest of 22.9% been the school and 0.1% been doctors provided information for respondents. For their preferred sources 39.3% answered school followed by 30.5% for parents with the least been siblings with 0.6%. More of these preferred sources can be seen in fig 6.

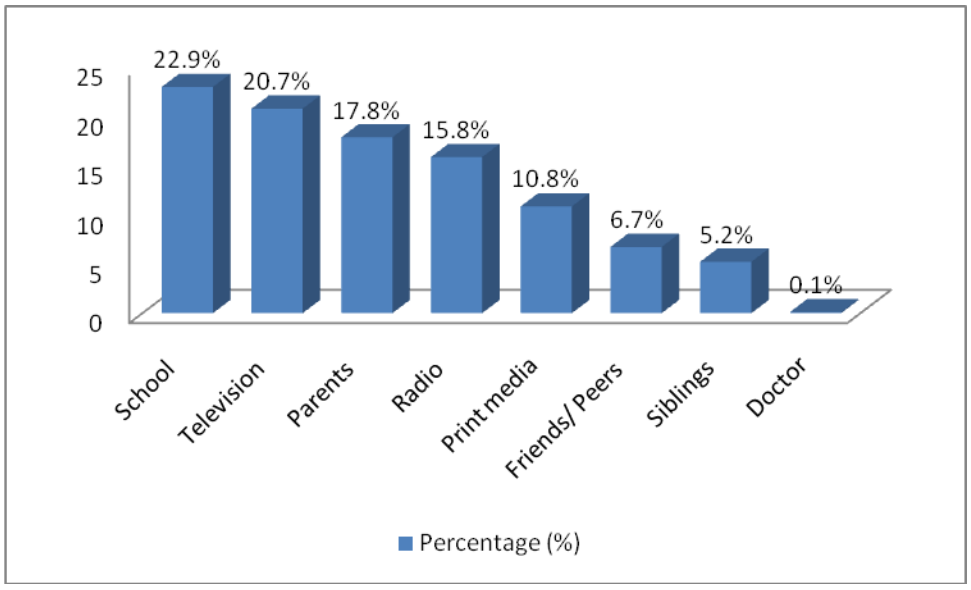

Figure 6: Sources of Information for in-school adolescents

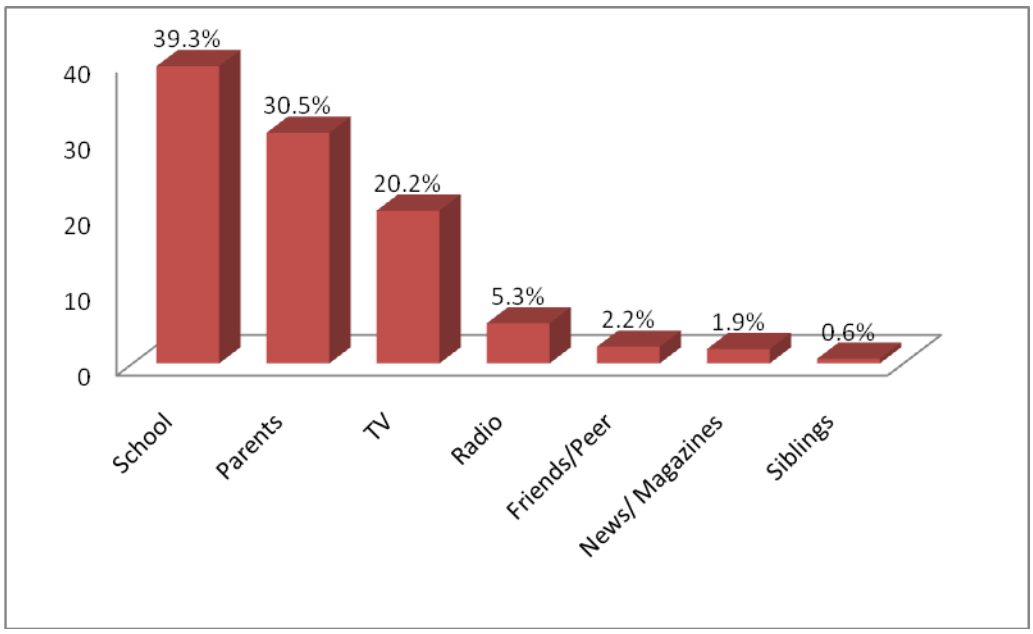

Figure 7: Preferred sources of Information for In-school adolescents

Respondents suggested preferred ways and treats they want, when SRH information is be given to them, in other to make it more effective. This can be seen in the table 8 below.

Table 9: Preferred ways of SRH Information

	Frequency	Percent (%)
Person giving information should be knowledgeable	156	42.9
Information shared should be confidential	58	15.9
Information should be given freely	52	14.3
I should be treated with respect	30	8.2
I should be given privacy	28	7.7
Don't know	40	11.0
Total	364	100.0

4.6 ATTITUDE OF IN-SCHOOL ADOLESCENTS TOWARDS SEXUAL AND REPRODUCTIVE HEALTH IDEALS IN THE COMMUNITY

The study also sought the views respondents on what in their community was seen as SRH ideal, these behaviors were not accepted as children's behavior and the community furor on.

Family life education in school was heard off by 42.5% of respondents. When asked if it was good to encourage it to be taught in schools, 81.6% of respondent said yes because they did not think it encourages sex among adolescents.

The study revealed that 89.6% of adolescents agreed that boys and girls should say no to sex until they are married. Off all respondents interviewed 17.6% were sexually active whiles 18.6 have ever taken an alcoholic beverage before. This is shown in table 9 below.

Table 10: Attitude towards Sex and Alcohol

Responses	Frequency	Percent (%)
Agreed to No Sex before marriage		
Yes	300	89.6
No	35	10.4
Sexually active		
Yes	64	17.6
No	299	82.4
Taken any Alcoholic beverage before		
Yes	68	18.6
No	297	81.4

Table 91: Adolescent responses on reasons for saying No to sex before marriage

	Frequency(n)	**Percentage (%)**
Prevent pregnancy and rape	125	27.2
Prevent STIs	79	17.2
Prevent mistrust, disappointment and disrespect	47	10.2
Too young to understand consequences of their action	41	8.9
Prevent drop out	37	8
Sin against God	23	5
Leads to financial problems	16	3.5
Increase dependency ration and street children	7	1.5
Abortion and its complications	6	1.3
Don't know	79	17.2
TOTAL	**460**	**100.0**

The participants who said pre marital sex should be avoided gave various reasons as shown above.

CHAPTER FIVE

5.0 DISCUSSION

5.1 INTRODUCTION

This cross-sectional study sheds more light on the level of knowledge of adolescents on sexual and reproductive health issues, their source of this knowledge and how it has affected their attitude towards the community ideals at the Ejisu Juaben municipality of the Ashanti region of Ghana.

The study was conducted in an environment where there had been various interventions and programs, aimed at providing adolescents with knowledge on reproductive health issues like the AYA program, Virgin clubs and many more. However the study had some inherent limitations, one of which is selection bias.

Many studies have shown evidence that adolescents have a high knowledge on the subject matter of reproductive health, from various sources which adolescent sometimes preferred as source. But this has not improved risk taking behavior as they still engaged in behavior that results in teenage pregnancies.

5.2 KNOWLEDGE OF IN-SCHOOL ADOLESCENTS ON SEXUAL AND REPRODUCTIVE HEALTH

The study used knowledge on fertile periods, safe sex, STI's and how pregnancy happens to find level of knowledge on reproductive health issue. Of all the respondents interviewed 50.7% could identify that a girl could get pregnant during menstruation and when a girl have sex for the first

time she could get pregnant. Adolescent in this study could identify that at ages 13 to 23years for girls and boys, the girl could become pregnant if the had unprotected sex whiles the boy could impregnate a girl if they had unprotected sex. This was not comprehensive enough to help them in the event of making informed choices. Forty-nine point four percent of males as against 50.6% of females had knowledge on how pregnancy happens.

A study by Hessburg L, et al, (2007) which also looked at knowledge about sexual and reproductive health issues using a composite measure based on respondents' awareness of a woman's fertile period, ability to reject several popular misconceptions about pregnancy for example, knowing that a female can get pregnant as a result of her first sexual experience and familiarity with at least one modern method of contraception. In this study among adolescents aged 15–19, only 28% of females and 21% of males had this detailed knowledge about pregnancy prevention. But among 12–14year-olds, only 12% of females and 6% of males had this level of knowledge.

In all 48.6% of adolescents answered "yes" as against 34, % who answered "no" to a girl could get pregnant when she had sex once, 40.5% being the highest percentage of in school adolescents stated that at age 13-16,a boy could make a girl pregnant and 23.9% of respondents thought a girl could also get pregnant from age 13.

With regards to knowledge of sexually transmitted infections (STIs), 60.3% of respondents could identify correctly what STI's are. Vernon (2004:24) in another survey in Mexico, found that less than one-half of the respondents had heard about STIs. Slightly more females than

males knew about them. Less than one-quarter of those 10-14 years had heard of STIs, compared to four-fifths of those aged 15-19.

5.3 IN-SCHOOL ADOLESCENT LEVEL OF KNOWLEGDE ON RISKY BEHAVIOUR

Behavior was viewed risky when it resulted in individual flaunting societal values or risky behaviors were defined by the increased risk of a negative outcome, which can take two pathways: risky sexual behaviors are those which increase the chance of contracting or transmitting disease, or increase the chance of the occurrence of unwanted pregnancy.

Smoking marijuana and cigarette were identified as risky behavior followed by drinking alcohol and having sex without a condom. Out of the 365 respondents interviewed 49% did not know what a risky behavior is.

Adolescents identified peer pressure (25.6%), attitude of parents at home (15.4%) and financial problems (10.2%) as major risk factor for adolescents and therefore suggested more education.
In Asia (Bhata, 2002: 107-109) found that peer pressure among adolescent men and sexual experiences is one example of the double standard. For example, approximately 40% of young men in rural Thailand said they had their first sexual intercourse because they wanted to be as experienced as their friend's. The study also identified some factors that can lead to risky reproductive health-related behavior among adolescents in general, particularly among unmarried adolescents. These factors were as follows: First, adolescents often lack access to sufficient and correct information. Cognitive distortions and a sense of non-susceptibility lead to most adolescents been uninformed a second factor in risky reproductive health-related behavior

concerns the increasing significance of peer pressure. Growing social acceptance of premarital sex plays a major role in reproductive health-related decision making among adolescents and other young people. As adolescence is a developmental period of physical transition and identity formation, the struggle for individual autonomy and the social construct of masculinity or femininity render teenagers susceptible to peer pressure.

5.4 SOURCE OF INFORMATION ON SEXUAL AND REPRODUCTIVE HEALTH ISSUES

Adolescents in this study barely made mention of other mediums of assessing SRH information like internet and health-care providers, which were found to be a major source of information in other studies on adolescent SRH. The major sources in this study were rather school, radio, television and parents.

Unlike this study, others conducted in Malawi, (Alister, 2004,) found other sources of sexual and reproductive health information for young people to be youth clubs 38%, and government health facilities 23%. The other sources also mentioned by the adolescents were the print media 11%, community-based distribution agents 5%, non- In this study among adolescents in the study, much of their information was from school, 22.9%.

Others like the findings in the publication research in brief, an article titled Adolescents in Ghana: Sexual and Reproductive Health, also found the following: among adolescents aged 15–19 who have heard of HIV/AIDS, the reported sources of information for females and males, respectively, where , radio (66% and 68%); workplace (52% and 50%); television (49% and

46%); print (13% and 18%); friends and relatives (7% and 5%); and health workers (2% and 3%).

Preferred sources of Sexual and Reproductive Health information for in-school adolescents were school at 39.3%, followed by parents at 30.5%.Contrary, in the study by (Hessburg L, et al, 2007) adolescents rather preferred to receive information on sexual and reproductive health from professional sources, such as the mass media, teachers and health care providers, rather than from parents.

This study also went further to look at how adolescent wanted to be treated when given information on sexual and reproductive health. In-school adolescents expressed the desire of having the person giving them the information to be knowledgeable and they expect information given to them to be confidential.

5.5 ATTITUDE OF IN-SCHOOL ADOLESCENTS TOWARDS SEXUAL AND REPRODUCTIVE HEALTH IDEALS OF THE COMMUNITY

The study also sought the views of adolescents on whether they agreed with the ideals of the community on, family life education and no sex before marriage.

In all 89.6% of adolescents agreed on no sex before marriage. For in-school adolescents 42.5% as against 57.5% responded to hearing about family life education. Among the 42.5%, some 81.6 % wanted family life education taught in schools, because it did not encourage sex. This views were also expressed in the study by (Hessburg L, et al, 2007) in Ghana which also found 99% of adolescents who had ever attended school said it was important for family life education to be

taught in schools, and about two-thirds of adolescents did not think that family life education encourages adolescents to have sex.

Adolescents generally showed positive attitude towards the ideals of the community in relation to premarital sex, 89.6 %(N=300) said no to premarital. Sexually active adolescents in this study represented 17.6 %(N=64). Pregnancy and rape were given as the major reasons to stay out off sex before marriage followed by STI's and preventing mistrust, disappointment and disrespect. Alcoholism among adolescents was 18.6% (N=68).

CHAPTER SIX

6.0 CONCLUSIONS AND RECOMMENDATION

6.1 CONCLUSIONS

This study accessed adolescent's knowledge on SRH, the sources of this knowledge and how it has influence their attitudes towards sexual and reproductive health ideals in their community. Adolescent's knowledge on SRH was not in-depth to enable them make responsible choices in relation to RH.

Adolescents indicated at least one source of information on sexual and reproductive health issues and this was the school followed by parents instead of peers as has always been thought off as having a great influence on the adolescent. Other sources like internet, health care providers were barely mentioned as information sources.

Generally, respondents attitude towards alcohol, sex and smoking marijuana or cigarette were good, about one third were involved in this activities. They identified peer pressure, attitude of parents at home and financial problems as major risk factors to engage in a risky behavior. Improving and increasing access to sex education was suggested as a major tool to reduce the problem.

6.2 RECOMMENDATIONS

Findings and recommendations from this study should be discussed with staff of the Ghana Education service, the District Health Directorates team and all other stakeholders concern with adolescent sexual and reproductive health.

The study found that adolescents generally did not have an in-depth knowledge on menstruation, sexually transmitted disease, how pregnancy happened and preventions of pregnancy. This does not help them to make informed choices on sexual and reproductive health issues. There is therefore the need to intensify health education programs like talks and classes at home, schools and other facilities that adolescents visit.

The DHMT and GES should support further research and evaluation of existing interventions to see their effectiveness and improve on them.

The District Health Directorates should see to it that, the G.E.S and the other stakeholders make a comprehensive RH education plan for the district which involves everybody especially the DHMT and the adolescents. This new collaboration should include adolescents and parents to train and provide education at the right stages of adolescence. Educational material should vary depending on the stages of adolescence.

The District Education Service should collaborate with other stakeholders to enforce a change in the curriculum to start educating the adolescents before they begin pubertal stages to prepare them adequately for changes and consequences of these changes in their lives.

REFERENCES

Adamchak K, Bond L, MacLaren R, Magnani K, Nelson J (2000). A guide to monitoring and evaluation of adolescent sexual and reproductive health programs, FOCUS on Young Adult *Tool Series 5*.

African Youth Alliance, UNFPA (2006). Evaluation Report of the African Youth Alliance in Ghana: Policy and Advocacy, Coordination and Dissemination, Accra, Ghana.

Ali MK, Magnani RJ, Morgan GT. Bond KC (2003). Reproductive Health Risk and Protective Factors among Unmarried Youth in Ghana. *International Family Planning Perspectives*, 29(1):14–24

Alister C, Munthali, Chimbiri A. Zulu, E (2004). Adolescent Sexual and Reproductive Health in Malawi:A Synthesis of Research Evidence *Occasional Report* No.15,Guttmacher Institute,

Awusabo-Asare K, Kumi-Kyereme A, Nerquaye-Tetteh JO, Yankey F, Biddlecom A, Croce-Galis M (2007). Protecting the Next Generation in Ghana: New Evidence on Adolescent Sexual and Reproductive Health Needs. *Guttmacher institute*.

Awusabo-Asare, K, Biddlecom, A, Kumi-Kyereme, A. Patterson, K (2006). Adolescent Sexual and Reproductive Health in Ghana: Results from the 2004 National Survey of Adolescents: Occasional Report, *Guttmacher Institute*, No. 22.

Blum RK, Nelson-Mmari K (2004). The Health of Young People in a Global Context *Journal of Adolescent Health*; 35:402–418

Blum RW, Positive Youth Development: A strategy for Improving Adolescent Health. Chapter 10, *Handbook of Applied Development Science*; Pg 237-252

Boonstra, H (2004). The role of reproductive health providers in preventing HIV, *Issues in Brief*, New York: AGI, No. 5.

Brown, VA, AnnDenise, Shireen, J. Jejeebhoy, S, Shah, I, Kathryn, M. & Yount, K (2001). Sexual Relations among Young People in Developing Countries: Evidence from WHO Case Studies. WHO/RHR/01.8. Geneva: World Health Organization.

Call, KT, Riede, AA (2002). Adolescent Health and well-being in the 21st Century: A global perspective. *Journal of Adolescent Research.*12 (10: 69-98

Chacko S, Kipp,W, Laing, L. & Kabagambe G (2007). Knowledge of and Perceptions about Sexually Transmitted Diseases and Pregnancy: A Qualitative Study among Adolescent Students in Uganda. *Journal of Health popur nutr, 319*-327

Chao-hua, L, Quan, Z, Er-sheng, G, Shah I (2006). Can the Internet be an effective way to conduct sex education for young people in China? *Journal of Adolescent Health*, 39:720–728. Available at www.who.int/reproductivehealth/hrp/policy_briefs/shanghai_srheducation.html Accessed 6/3/08.

Chuks JM ,Kwankye SO (2007). Population, Health and Development in Ghana: Attaining the Millennium Development Goals. *Sub-Saharan Publication*.

Cleland J, Ali MM (2006). Sexual abstinence, contraception, and condom use by young African women: a secondary analysis of survey data, *Lancet*, 368 (9549):1788–1793.

EJ Susman, A Rogol. Puberty and Psychosocial Development. *Handbook of Adolescent Psychology Chapter 2*

Finer LB (2007). Trends in Premarital Sex in the United States. Guttmacher institute, 122:73-79. Available at www.publichealthreports.org/userfiles/122_1/12_PHR122-1_73-78. Accessed 6/2/08.

Henry R and Fayorsey C (2002). *Coping with Pregnancy: Experiences of Adolescents in Ga Mashi, Accra*, Calverton, MD, USA: ORC Macro,

Kirby D, Laris BA, Rolleri L (2007). Sex and HIV education programs: their impact on sexual behaviors of young people throughout the world, *Journal of Adolescent Health*, 40(3):206–217.

Lancet 2006; 368: 1581–86

Lloyd, Cynthia B (2005). Growing Up Global: The Changing Transitions to Adulthood in Developing Countries. Washington DC: *National Academies Press.*

Mahy M, Gupta N (2002). Trends and differentials in adolescent reproductive behavior in Sub-Saharan Africa, *DHS Analytical Studies*, Calverton, MD, USA: ORC Macro, No. 3.

Marston C, King E (2006). Factors that shape young people's sexual behavior: a systematic review, *Lancet*, 368(9547):1581–1586.

McIntyre P (2004). Protecting young people from HIV and AIDS: the role of health services. World Health Organization

Mohammadi MR, Mohammad K, Farahani FKA, Alikhani S. Zare, Tehrani, FR, Ramezankhani A, Alaeddini F (2006). Reproductive knowledge, attitudes and behavior among adolescent males in Tehran, Iran. *Int. Family Plan Perspective;* 32:35-44.

Nair MKC. *Indian Pediatrics journal*, Editorial (2004). 41:7-13

Olukoyaa AA, Kayaa A, Fergusona BJ AbouZahrb C (2001). Unsafe abortion in adolescents, *International Journal of Gynecology & Obstetrics*; 75: 137-147

Pachauri S, Santhya KG (2002). Reproductive Choices for Asian Adolescents: A Focus on Contraceptive Behavior. *International Family Planning Perspectives,* 28(4):186-195

Population Council, Adolescent Reproductive Health Policy (2000). Accra, Ghana: *Ghana National Population Council,*

Singh S (2003). Adding It Up: The Benefits of Investing in Sexual and Reproductive Health Care, New York*: The Alan Guttmacher Institute (AGI),*

United Nations, UN Millennium Development Goals, <http://www.un.org/millenniumgoals>, accessed 9/ 17/2007.

Vernon R, Maricela D (2004). "Improving the reproductive health of youth in Mexico," *Frontiers Final Report.* Washington, DC: Population Council.

WHO, Adolescent Friendly Health Services-An Agenda for Change.www.who.int/child-adolescent-health

Wolf RC, Pulerwitz J (2003). The influence of peer versus adult communication on AIDS-protective behaviors among Ghanaian youth, *Journal of Health Communication*, 8(5):463–474.

World Bank, World Development Report (2007): *Development and the Next Generation,* Washington, DC

APPENDIX 1: SAMPLE OF CONSENT FORM FOR PARTICIPANTS

REQUEST FOR CONSENT TO PARTICIPANT IN A RESEARCH STUDY

STUDY TITLE: Health education and its effects on adolescents' sexual and reproductive behavior at Ejisu Juaben.

INTRODUCTION: A student from the School of Public Health, University of Ghana is conducting a research study in Ejisu Juaben on Health education and its effects on adolescents' sexual and reproductive behavior.

Kindly read or have this consent form read to you before deciding whether to participate in the study. Kindly sign or thumbprint below if you agree to take part in the study. A copy of this consent form shall be provided to you.

STUDY PROCEDURE: You are being invited to answer a few questions relating to health education and its effects on adolescents sexual and reproductive behavior. Your participation in this study will last for 10-15 minutes and will end in a day.

BENEFITS: You will not have direct benefit from the study for your participation; however, the information obtained will be used to improve adolescents sexual and reproductive health needs.

RISKS/DISCOMFORTS: The risks involved in taking part of the study include the inconvenience that the interview will cause you and the time you will spend answering questions. Some of the questions may be personal therefore embarrassing. The interview will be conducted by well trained research assistants and therefore minimize any of these risks.

CONFIDENTIALITY: All information that will be provided will be treated as confidential and reference would not be made to any participant by name.

VOLUNTARINESS: A participant in the study is wholly voluntary and refusal to participant will not attract any sanction or punishment. Respondents are at liberty to answer or refuse to answer any question put to them.

CONTACTS: if you have any questions regarding the rights as a participant in this study, you may contact me the Director of Ejisu Juaben district health directorate or you may contact the principal investigator Miss Belinda Mawunyo Akakpo on telephone number 0244657445 or email mawunyo71@hotmail.com.

Sign/Thumbprint…… Witness's Sign…….

Date…… Date…….

APPENDIX 2: SAMPLE OF QUESTIONNAIRE

STUDY QUESTIONNAIRE

REPRODUCTIVE HEALTH EDUCATION AND ITS EFFECTS ON THE ADOLESCENT SEXUAL AND REPRODUCTIVE HEALTH: A CASE STUDY OF ATTITUDES OF IN-SCHOOL ADOLESCENTS IN EJISU JUABEN.

Place…… **ID No of Respondent: ……..**

Date of interview…… **Name of Interviewer: ……**

SECTION A - BACKGROUND INFORMATION		
No.	**Questions**	Code
1	**Age…….**	Q1 [DOB]
2	**Sex** Male ……1 Female……..2	Q2 [SEX]
3	**Adolescents Educational Level** No education……1 Less than Primary……2 Primary……3 Junior High Secondary……4 Secondary High/vocational/technical college…..5	Q3[EDU]
4	**Religion** Catholic……1 Protestant……..2 Pentecostal/ Charismatic……3 Muslim……...4 Traditional Religion……5 No Religion……..6 Others (Specify)……88	Q4[R]
5	**How important is it to your family that you continue your education after high school?** Not important ……1 Very important……2	Q5 [IMPEDU]
6	**With whom do you live with most of the time?** Both parents……..1 Mother only……...2 Father only……3 Brother/Sister……4	Q6 [WHOL]

	Guardian/non-relative……5 Uncle……..6 Aunt……7 Grandmother……8 Grandfather……9 Other *(specify)*:……88	
7	**Parents/Guardian Educational Level** No education……1 Less than primary……....2 Primary……3 Secondary/vocational/technical college…4 University/college……...5 Don't know……..…98	Q7[PEDUL]
8	**Occupation of Parents/Guardian** Self Employed……..…1 Government Employee……..…..2 Non Governmental……...3 Others(Specify)……88 Don't know……...98	Q8[OCCUP]
	SECTION B - REPRODUCTIVE HEALTH KNOWLEDGE	
9	**Have you ever attended any classes or talks on any of the following :(If you answer Yes to any of these go to Q11 and others.)** **Sex education…..Yes ……1 No……2 Don't know….98** ☐ **Personal hygiene. Yes ……1 No……2 Don't know….98** ☐	Q9[TALK]
10	**How old were you when you first attended these classes or talks?** ☐ Age……Don't know……..98	Q10[AGET]
11	**Do you remember discussing any of these in your classes or talks?** How pregnancy happens……..…1 Contraception/ how to prevent pregnancy…….2 Abstinence/ say no to sex……..…...3 Sexually transmitted infections or diseases…...4 Others (Specify)……...88 Don't know……..….98	Q11[TDIS]
12	**Have you ever heard of 'safe sex'?(If yes go to 14)** ☐ **Yes……1 No……2**	Q12[HSFS]
13	**What is Safe Sex?** Abstaining from sex……..…1 Using condom……..…..2 Avoiding multiple sex partners……....…3 Avoiding sex with prostitutes……..4 Avoiding anal sex……5 Having sex without your parents knowledge……..6 Other *(specify)*:……88 Don't know……..98	Q13[WSS]

14	**During which time of the menstrual cycle does a woman have the greatest chance of becoming pregnant?** Just before her period begins……1 During her period……...2 Right after her period has ended……...3 In the middle of her cycle……..4 Other *(specify)*:……..….88 Don't know/don't remember……98	Q14 [MENSP]
15	**Can a girl get pregnant the first time she has sex?** Yes……..….1 No…….....2 Don't know/don't remember…….98	Q15 [CGPFS]
16	**In your view, how old can a boy be, to make a girl pregnant?** Age…….. Don't know/don't remember……98	Q16 [ABPRG]
17	**At what age can a girl get pregnant if she had sex?** Age: …….. Don't know/don't remember….98	Q17 [AGPRG]
18	**Have you ever heard of Sexually Transmitted Infections?** Yes……1 No……2	Q18[HSTI]
19	**What are they……?** Diseases acquired from sexual intercourse……..1 Diseases from toilet infection……...2 Diseases gotten through blood transfusion……...3 Others(specify)……..4 Don't know……..98	Q19 [WSTI]
20	**Which of the following ways can you use to prevent pregnancy?** Using condom..... 1 Using contraceptive (unspecified)…….2 Having non-penetrative sex……3 Herbs……....4 Safe days/abstinence……..... 5 Emergency contraception……...6 Withdrawal before ejaculation..……....7 Douching……..…..8 Other *(specify):*…….. 88 Don't know/don't remember……98	Q20 [HAGP]
SECTION C - IN-SCHOOL ADOLESCENTS LEVEL OF KNOWLEGDE ON RISKY BEHAVIOUR		
21	**Have you heard of any of these before? (If you answer Yes to any of Q32, go on to Q33)** **Risky Sexual Behavior?** Yes ……1 No……2 **Risky Behavior?** Yes ……1 No……2	Q21[RISBE]

22	**What in your view is risky behavior?** Drinking alcohol……1 Smoking cigarettes ……2 Smoking marijuana……3 Having sex with a condom……4 Having sex without a condom ……...5 Others(Specify)……..88 Don't know……98	Q22[VIWRB]
23	**Which of the following is Risky Sexual Behavior?** Drinking alcohol……1 Smoking cigarettes ……2 Smoking marijuana……3 Having sex with a condom……4 Having sex without a condom ……...5 Others(Specify)……..88 Don't know……98	Q23[VIRSB]
24	**Why do you think your friend will like to engage in risky behavior?** For the fun of it……1 To satisfy peers ……..2 For monetary gains……3 Others(Specify)……88 Don't know……..98	Q24[WFERB]
25	**Which of the following do you think will greatly influence your ability to engage in risky behavior?** Attitude of parent at home……1 Peer pressure……2 Financial problems……3 Drunkenness……4 Others(specify)……88 Don't know……98	Q25[INFLU]
26	**Have you ever taken any alcoholic beverage before?** **Yes……..1 No……2**	Q26[ACHOL]
27	**Have you ever had sexual intercourse before?** **Yes……..1No……..2**	Q27[XTER]
28	**What in your opinion should be done to prevent young people from engaging in risky sexual behavior?**……	Q28[PRSB]
29	**What in your opinion should be done to prevent young people from engaging in risky behavior**……	Q29[PRERB]

SECTION D - SOURCES OF INFORMATION ON REPRODUCTIVE HEALTH		
30	**Where do you normally get information on health education?(CIRCLE ALL APPLICABLE)** Parents……..1 Siblings…….2 Friends/peers…….3 TV……4 Radio ……5 News paper/magazines…..6 School……...7 Others(Specify)……88	Q30[INFOHE]
31	**From which of the following will you prefer to get information on health education (CIRCLE ONE)** Parents……...1 Siblings……..….2 Friends/peers…….3 TV……..….4 Radio ……5 News paper/magazines….6 School……7 Others(Specify)……88	Q31[PRFEH]
32	**Which of the following has ever discussed sex education with you?** Mother……..1 Father……....2 Both Parents ……3 Adult family member……..4 Peer……..…5 Adult in the community……..6 Other(Specify)……88	Q32[PSDSE]
33	**Which of the following topics did they discuss with you?** The female menstrual cycle……1 How pregnancy occurs……2 Sexually transmitted infections……...3 How to say no to sex……4 Contraceptives……5 How to prevent AIDS……..6 Others (Specify)……..…88	Q33 [TOPICS]
34	**Who normally starts these conversations?** I……1 My father…..……2 My mother……3 Peers……..4 Others (Specify)…….88	Q34 [WHOST]

SECTION E - ATTITUDE TOWARDS REPRODUCTIVE HEALTH IDEALS IN THE COMMUNITY		
35	**How do you expect the person given you information on health education to treat you?** Person giving information should be knowledgeable……1 Information shared should be confidential……2 ☐ Information should be given freely……3 I should be given privacy……....4 I should be treated with respect……..5 Others(Specify)……...…88 Don't know……..98	Q35[TRTHE]
36	**Have you heard of this before FAMILY LIFE EDUCATION?** **Yes……1 No……2** It is important for family life education to be taught in schools **AGREE……1 DISAGREE……2** ☐ Discussing family life education with young people encourages young people to have sex **AGREE……1 DISAGREE……2** ☐	Q36[FEES]
37	**Do you agree that boys and girls should stay out of sex until they are married?** ☐ Yes……1 No……2	Q37[SBM]
38	**If Yes state your reasons**…….. ……	Q38[IYR]
39	**If No give reasons**…….. ……	Q39[INR]