PARENT-ADOLESCENT COMMUNICATION ON SEXUAL AND REPRODUCTIVE HEALTH AMONG SECONDARY SCHOOL STUDENTS IN SIRISIA SUB-COUNTY, KENYA

Hedwick N. Wasike

A Research Thesis submitted in partial fulfillment for the requirements for the award of the Degree of Masters of Science in Nursing in the school of Nursing and Midwifery of Masinde Muliro University of Science and Technology

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DECLARATION

DECLARATION

This thesis is my original work and has not been presented for a Degree or an award in any other university.

Signature..... Date.20/11/17.....

Hedwick N. Wasike

HNR/G/03/14

Approval by Supervisors

The undersigned supervisors certify that they have read and so hereby recommend for acceptance of Masinde Muliro of Science and Technology a thesis entitled **"Parent-Adolescent communication on Sexual and Reproductive Health among secondary school students in Sirisia Sub-County, Kenya"**

Signature..... Date.22-11-2017.

Prof. Peter Odera, PhD

Department of Educational Psychology

Masinde Muliro University of Science and Technology

Signature..... Date.22/11/17.....

Dr.Mary Kipmerewo, PhD

Department of Midwifery

Masinde Muliro University of Science and Technology

COPY RIGHT

DEDICATION

To my husband Leonard Cheloti and my children Anne, Timothy and Beryl Cheloti, who have always been a source of inspiration and who have instilled in me a virtue of patience and perseverance.

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Am grateful to the Almighty God for granting me good health throughout the period of taking my Masters programme. Special thanks go to my supervisors, Prof. Peter Odera and Dr. Mary Kipmerewo for their availability, flexibility, guidance, encouragement and valuable suggestions that assisted me to complete my research.

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ABSTRACT

Adolescents are more than one billion worldwide and more than 75% are found in developing countries and frequently engage in risky sexual behaviors, which result in unprotected sex, unwanted pregnancy, sexually transmitted infections including HIV and AIDS, unsafe abortions and other reproductive health problems that are the greatest risk to their well-being. In Kenya, inadequate access by adolescents to reproductive health information is one of the key barriers to improved sexual and reproductive well-being and quality of life. However, there is scanty information in Sirisia sub-county on barriers of parent adolescent communication. The broad objective of the study was to evaluate parent- adolescent communication on sexual and reproductive health among secondary school students. Specific objectives of the study were to: determine the level of knowledge of parents and adolescents towards sexual and reproductive health, determine the source of information for adolescent communication on sexual and reproductive health and analyze the factors affecting parent-adolescent communication. This study was guided by a conceptual framework developed by the researcher where by independent variables were level of knowledge, source of information and dependent variable was SRH issues. The study adopted cross sectional research design. The study population was 8547 secondary students. The sample size of the study was made up of 697 secondary students, 29 teachers and 48 parents. Purposive sampling was used to select parents and teachers. Cluster sampling was used to select sample size of 697 students using Fisher's formulae. Data was collected using structured questionnaire, interview guide and focus group discussion. Piloting of the research instruments was done in Webuye West sub-county to validate and to make research instruments reliable. The reliability coefficient for the questionnaire was 0.75, for interview was 0.78 and for FGD was 0.81. The findings indicate that parent-adolescent communication on sexual and reproductive health in Sirisia Sub County was that level of education of parents influenced adolescent's perceived knowledge level. Those whose fathers had no education or had attained primary education were 60% less likely to be knowledgeable than those whose parents had secondary or tertiary education (OR: 0.4; 95% CI: 0.3 – 0.6; $p < 0.0001$), the main source of adolescent SRH information was found to be from peers (OR: 6.6; 95% CI: 3.1 – 13.9; $p < 0.0001$). Cultural norms and fear of discussion are the major factors that affect communication. (OR: 0.2; 95% CI: 0.01 – 0.82; $p = 0.009$) (OR: 0.2; 95% CI: 0.1 – 08; $p = 0.01$). This study will assist secondary school stakeholders, education policy makers and provide extensive knowledge about parent-adolescent communication on SRH issues. Similarly, it will affect paramedics to understand sexual behavioral patterns of the adolescents in the society. The study recommendations include; there should be deliberate efforts made between the parents and adolescents to bridge the cultural & generational communication barriers as identified in the study. There should be proper & flexible channels of communication between parents & adolescents that guarantees the credibility of information shared& efforts should also be made to ensure that communication on SRH between parents, teachers and adolescents are enhanced. Efforts must equally be made to enhance literacy among the parents to ensure that communication between adolescents and the parents on SRH issues are improved.

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ABBREVIATIONS AND ACRONYMS

The following list gives abbreviations and acronyms as used in this thesis.

AIDS	:	Acquired immune deficiency Syndrome
CSA	:	Centre for Adolescent Studies
FP	:	Family Planning
IUCD	:	Interuterine Contraceptive Device
GSHS	:	Global School-based Student Health Survey
HIV	:	Human Immuno Virus
KAIS	:	Kenya AIDS Indicator Survey
KDHS	:	Kenya Demographic Health Survey
KNBS	:	Kenya National Bureau of Statistics
NACOSTI	:	National Commission for Science, Technology &Innovation
RH	:	Reproductive Health
STDs/STIs	:	Sexually Transmitted Diseases/ Sexually Transmitted Infections.
SRH	:	Sexual Reproductive Health
SSA	:	Sub-Saharan Africa
SPSS	:	Statistical Package for Social Scientists
VCT	:	Voluntary Counseling and Testing
WHO	:	World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Overview of the Study

This chapter discussed the background of the study, Statement of the problem, Justification, main objective of the study, specific objectives, and research questions, assumption of the study, scope of the study, significance, limitations of the study and conceptual framework.

1.2 Background of the Study

Adolescents are more than one billion worldwide. More than 75% of these, are found in developing countries and they frequently engage in risky sexual behaviors, which result in unprotected sex, unwanted pregnancy, sexually transmitted infections including HIV and AIDS, unsafe abortions and other reproductive health problems that are the greatest risk to their well-being (Ayalew, Mengistie, & Semahegn, 2014). Research indicate that increased parent-child communication leads to a raised awareness and reduction in risky taking behaviors (Yadeta, Bedane, & Tura, 2010*).* Moreover, most information that the adolescents have, comes from peers of the same sex who may lack adequate information or are incorrectly informed, mass media and sexual education from school (Shiferaw, Getahun, & Asres, 2014).

Several studies done on Parent-adolescent communication on SRH in Accra, Ghana, Tanzania and Ethiopia suggest that adolescents have limited knowledge about sexual and reproductive health which may have grave consequences in their future life. Hence, investing in the health of young people is essential for the economic and social development of any nation (Godia,Olenja, Hoyman, & Broek, 2014). Moreover, Parents as agents of socialization, are in a position to help socialize the adolescents

into healthy sexual adults by providing accurate information about sexuality and reproductive health, however most parents do not feel comfortable to talk with their adolescents about sexual and reproductive health issues and they tend to limit the conversation to safe topics or warnings when a problem has happened (Ayalew *et al*., 2014).

Adolescents' sexually risky behaviors are a source of concern to parents and the health care workers that provide sexual and reproductive health services to the adolescents worldwide (Asampong, Osafo, Bingenheimer, & Ahiadeke, 2013). Parents often have the power to guide children's development in sexual and reproductive health matters, encouraging them to practice reasonable sexual behavior and develop good personal decision making skills (Yadeta *et al.,* 2010). Early debut of sexual activity is associated with greater risk of HIV and other sexually transmitted diseases (STDs) as well as unwanted pregnancy among teenagers in the United States. While the prevalence of sexual intercourse and pregnancy among teenagers has declined significantly in the United States since the early 1990s, more recent data suggest that rates of teenage pregnancy may be on the rise again. Furthermore, the social and medical costs associated with STDs and teenage pregnancy in the United States is among the highest in all developed countries (Davis, Blitstein, Evans, & Kamyab, 2010).

In Ethiopia, child bearing begins at early age, 45% of the total births in the country occur among adolescent girls and young women, 60% of adolescent pregnancies are unwanted and participants who did not find it easy to discuss about sexual and reproductive issues with their parents were more likely to initiate sex early (Shiferaw, *et al.,* 2014).

Sexual activity places young people in Kenya at an increased risk of infection with Human Immunodeficiency Virus (HIV), other sexually transmitted infections (STIs), as well as the potential for unplanned pregnancy (Kenya AIDS Indicator Survey, 2012).

In most cultures, parents and family members are an influential source of knowledge, beliefs, attitudes and values for children and young people (Yadeta, *et al.*, 2010). As in many parts of Sub-Saharan Africa (SSA), sexual activity begins early in Kenya, for example, by age 15, 11.6% of the girls and 20.2% of the boys have had sex, Kenya AIDS Indicator Survey (KAIS, 2012).

In Bungoma County, including Sirisia sub-county since 2004, there have been evidence based interventions implemented by center for the study of adolescence (CSA) targeting adolescents both in school and out of school with interventions to strengthen sexual and reproductive health issues, youth friendly centers have been put up to support the adolescents (Division of Reproductive Health Kenya, 2013). Despite all those evidence based interventions targeting only the youths without incorporating the parents, has not yielded any significant results. It has also been observed that, there are still many cases of teenage pregnancy, unsafe abortions and school dropouts due to unwanted pregnancy and the problem is not that teenagers are sexually active but rather that, they are inadequately prepared and guided in developing responsible sexual behaviors.

The reasons why young people engage in sexual activity are complex and diverse and have been associated with various social context and familial factors (Wamoyi, Fenwick, Urassa, Zaba, & Stones, 2010). Parents in particular play a substantial role in the gender and sexual socialization of their children. Discussing topics related to

sexuality has been associated with a range of important psychosocial attributes including increased knowledge, better interpersonal communication skills, including sexual negotiation skills and self-efficacy.

Communication about sexuality between parents or caregivers and offspring has also been identified as a protective factor for a range of sexual behaviors including, a delayed sexual debut, and particularly in females (Bastein, Kajula, & Muhwezi, 2011). Some studies have shown that adolescents who discussed sex issues with parents were less likely to engage in unsafe sexual behaviors (Wamoyi, *et al.*, 2010).

Raw data from Sirisia Sub- County indicate that adolescent girls have dropped out of school due to teenage pregnancy and this has been linked to lack of parent adolescent communication. Cultural beliefs in Sirisia have been associated with decline in parent adolescent communication on sexual and Reproductive health issues. The source of information on SRH issues in Sirisia for the adolescents has been mostly from the fellow adolescents which in most cases is not accurate. Therefore, this study tries to determine how parents and other adult family members communicate with adolescents about sexual and reproductive health issues.

1.3 Statement of the Problem

Effective communication regarding sexual or reproductive health is more likely to reduce adolescent risk-taking sexual behaviors when combined with effective parent-adolescent communication about adolescent sexuality issues (Nundwe, 2012). Parental guidance to adolescents is always a challenge. Communication breakdown between parents and adolescents has always resulted in serious social and health consequences including, parent child conflict, unwanted pregnancy, unsafe abortions, STIs including HIV and AIDS and school dropout. Discomfort experienced by parents and their

adolescents in speaking about adolescent reproductive health can prevent effective reproductive health communication from occurring (ibid).

The Kenya National reproductive health policy of 2007 identifies inadequate access by adolescents to reproductive health information as one of the key barriers to improved sexual and reproductive well-being and quality of life of Kenya's young people. Furthermore, knowledge of HIV prevention methods is lower among men and women aged 15-19 years who have never had sex than those who are married or living with the partner (KDHS, 2014).

Statistics from Ministry of education and Ministry of Health Sirisia Sub-county indicate 20% and 26% of teenage pregnancy and delivery respectively occurred in 2014 (unpublished source). In one primary school over 20 girls become pregnant in a period less than a year, (Education Bureau Sirisia, 2014). In relation to the above problem the ministry of Education requested the Ministry of Health to establish why many school girls are dropping out of school due to pregnancy. However, there is scanty information in Sirisia sub-county on barriers of parent adolescent communication. There is no literature on studies done in Kenya and more so Sirisia Sub-County, hence need for this study to evaluate Parent- adolescent communication on SRH.

Moreover, as parents do not talk to their adolescents about sexual and reproductive health issues, they do not want their adolescents to do anything about sexual matters. They avoid confronting their children on what they are doing concerning sexuality, then the adolescents become vulnerable to sexual risky behaviors. This will lead to increased school drop out for adolescent girls and opportunities that would have otherwise been for female students to advance academically will be lost due to parents

not communicating with their adolescents on sexual and reproductive health matters. This study therefore aimed at assessing parent-adolescent communication concerning sexual and reproductive health issues among secondary school students in Sirisia sub-county, Kenya.

1.4 Justification of the Study

Young people require access to a wide range of SRH education and clinical services to promote positive sexual development and reduce adverse social, economic and health consequences of sexual behaviors. However, compared with all other age groups, adolescents and young adults experience disproportionately high rates of preventable sexual behavior morbidities including sexually transmitted infections (STIs), human immunodeficiency virus (HIV), and unintended pregnancy (Melaku, Berhane, Kinsman, & Reda, 2014).

The environment in which young people are making decisions related to sexual and reproductive health is also rapidly evolving. Rates of sexual initiation during young adulthood are rising or remaining unchanged in many developing countries, childbearing and marriage are increasingly unlinked and in many countries, high HIV prevalence adds to the risks associated with early sexual activity. For example, in all but a few countries including Ethiopia, South Africa and Kenya in Sub-Saharan Africa, AIDS is a generalized epidemic. Young people are disproportionately affected, accounting for almost two-thirds of the people living with HIV in the region. Moreover, the prevalence of HIV among adolescents is higher in Sub-Saharan Africa than in other parts of the world (Michelle, *et al*., 2009).

The study aimed at, Providing information for planning community based health programs by MOE and MOH to reduce adolescent risky sexual and reproductive health behaviors, identifying barriers to parent- adolescent communication to improve parental guidance on matters of SRH, improve communication between parents and adolescents that may help to reduce school dropouts and planning mitigation measures related to uninformed adolescent sexual behaviors and to inform Adolescent Sexual and Reproductive Health policy of 2015 to input parent-adolescent communication.

1.5 Objectives of the Study

1.5.1 Main Objective of the Study

The main objective of the study was to evaluate Parent-adolescent communication on sexual and reproductive health among secondary school students in Sirisia Sub-County, Kenya.

1.5.2 Specific Objectives of the Study

The specific objectives of the study were:

i) To determine the level of knowledge of parents and adolescents towards sexual and reproductive health.
ii) To determine the sources of information for adolescent communication on sexual and reproductive health.
iii) To analyse the factors affecting parent-adolescent communication in sexual and reproductive health.

1.5.2 Research Questions

The research questions of the study were:

i) What is the level of knowledge of parents and adolescents towards sexual and reproductive health?

ii) What are the sources of information for adolescent communication on sexual and reproductive health?

iii) What are the factors affecting parent-adolescent communication on sexual and reproductive health?

1.5.3 Assumption of the Study

The study was based on the following assumptions:

The sample chosen was a true representative of the population. Responses that were given by the respondents were true reflections of the parent adolescent communication. All factors not included in the study remained constant. The data recorded was accurately recorded and analyzed. The participants were cooperative and able to give the required information without any reservations. The study will provide genuine information.

1.6 Scope of the Study

The study was carried out in Sirisia Sub- County among secondary school students, teachers and parents. The findings can be generalized to the entire county at large. The study was only delimited to the three specific objectives that guided the study.

1.7 Significance of the Study

It is hoped that the findings from this study will provide useful information to Teachers Service Commission, School Committees and parents to enable them set up measures that may enhance parent adolescence communication thus making youth make well informed decisions on SRH issues. This study will also provide additional information to existing literature on parent adolescent communication on SRH issues.

It is hoped that the study will serve as a springboard for further research in other areas of education sector not covered in this particular study. The study is specifically useful in providing a basis for solutions to challenges that influence parent adolescent communication on SRH issues. The study intends to help policy makers and educational planners to prepare better in order to enhance parent adolescent communication on SRH issues.

The study will provide information assisting paramedics to understand sexual behavioral patterns of adolescents in the society and organize school health programmes as per the ministry of health adolescent health policy (Adolescent Sexual Reproductive Health Policy, 2015).

1.8 Limitations of the Study

Administration of the interviews and questionnaire evoked anxiety among parents and students respectively. However, in carrying out the study, the researcher assured the parents and students that, the study was not testing them in anyway but was simply required to give their opinions which would only be used for academic purposes and not to victimize them.

Some respondents did not have adequate time to respond to the questionnaires though this was rectified by appointment through the principal who informed them in advance. Some students could not give sincere responses in the questionnaire, this problem was overcome by administering interview guide on parents, teachers and students to fill the gap.

1.9 Conceptual Framework

Conceptual framework is a product of qualitative processes of theorization. Conceptual framework is a network of interlinked concepts that together provide a comprehensive understanding of a phenomenon or phenomena (Mugenda & Mugenda 2003). The concepts that constitute a conceptual framework, support one another, articulate their respective phenomena and establish a framework specific philosophy. Elements of the framework included parent adolescent communication as independent variable and sexual reproductive health issues as dependent variable in Sirisia Sub County.

The next element was to determine the level of knowledge of parents and adolescents towards SRH issues in Sirisia sub-county and to examine the sources of information for parent adolescent communication on SRH issues in Sirisia sub-county. The last element was to examine factors that affect parent adolescent communication on SRH issues in Sirisia sub-county. Figure 1.1 shows the conceptual framework which encompasses the major variables and their possible patterns of influence on each other and eventually how they influence parent adolescent communication on SRH issues in secondary schools in Sirisia sub- County.

The conceptual framework in Figure 1.1 below identifies the independent variables in this case level of knowledge of parents, if parents of the adolescents have adequate knowledge on adolescent sexual reproductive health and are able to pass SRH information to them, then it leads to reduced cases of sexual transmitted diseases (STDs), school dropouts and adolescent pregnancies respectively. However, if the parents have no knowledge on SRH and they cannot communicate to them then it will lead increased cases of STDs, school dropouts and adolescent pregnancies respectively. Likewise, if the students have knowledge on SRH then there are increased chances of reduced cases of sexual transmitted diseases, school drop outs and adolescent pregnancies, if the adolescents don't have knowledge on SRH then it will lead to increased cases of STD, school dropouts and pregnancies respectively.

Sources of information on SRH issues and actors that affect parent adolescent communication on SRH issues, social media, peers and parents as a source of SRH information have either a positive or negative impact on adolescent reproductive health issues, when the social media, peers or parents don't give the right information on adolescent sexual reproductive health then cases of STD, school dropouts and adolescent pregnancies will be on the increase. However, if the social media, peers or parents give the correct adolescent SRH information, cases of STD, school dropouts and adolescent pregnancies will be on the decline. It also identified that authoritarian parents, style of parent communication and barriers to adolescent communication will affect adolescent reproductive health issues as it will lead to increased cases of STD, school dropouts and adolescent pregnancies. However, if the parents are not authoritarian, style of communication is good and no barriers to communication then the cases of STD, school dropouts and adolescent pregnancies will be on the decline.

Finally, when the Government policy on counseling services and role of teachers in guiding and counseling is implemented and enhanced in schools then it leads to reduced cases of STDs, school dropouts and adolescent pregnancies.

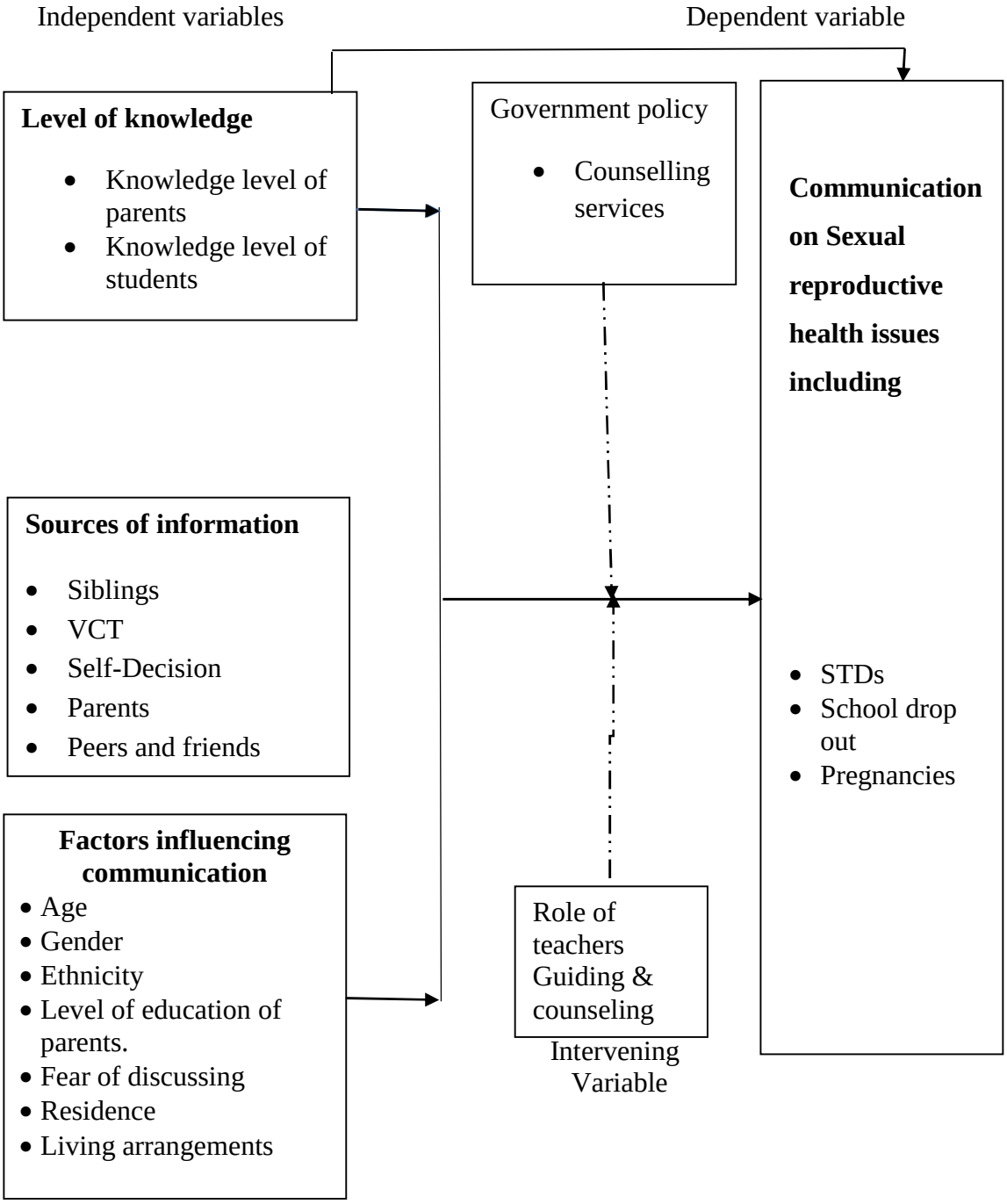

Figure 1.1 The Conceptual Framework Guiding the Study

Source: (Researcher, 2015)

1.10 Operational Definitions of Terms

The operational definition of terms are as follows:

Adolescents: Refers to adolescent aged between 14-19 years and are in secondary school.

Communication: Refers to the act of transferring information through speech, the written word, or more subtle, non-verbal ways from one place to another or from one person to another. In other words, it is the sharing of ideas &information.

Communication on SRH issues: Students who discussed at least two SRH Issues (condom use, STI/HIV/AIDS, abstinence, unwanted pregnancy, contraception) with their parents in the last six months.

Parents: Parents in this study mean biological parents, step parents, or foster parents but does not include elder siblings.

Reproductive health: Refers to a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, reproductive health, or sexual health/hygiene, addresses the reproductive processes, functions and system at all stages of life. Reproductive health, therefore implies that people are able to have responsible, satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so (WHO).

Sexuality: Refers to the broader content of adolescent reproductive health encompassing puberty, emotional maturity gender roles and sexual health.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this chapter a review of related literature to this study was discussed and the gaps identified to justify the current research. The cited literature was done under the following themes: effectiveness of parent-adolescent communication on sexual and reproductive health, gender difference in parent-adolescent communication, parent marital status and parent-adolescent communication nature of the family and parent-adolescent communication, frequency and content of discussion, factors affecting parent-adolescent communication and knowledge of parents and adolescents towards sexual and reproductive health issues.

2.2 Effectiveness of Parent–adolescent Communication on Sexual Reproductive Health

Parent-adolescent communication regarding sexuality is perceived by many to be an effective means of encouraging adolescents to adopt responsible sexual behavior (Yesus & Fanthun, 2010). In most cultures, parents and family members are an influential source of knowledge, beliefs, attitudes and values for children and young people. Parents have the power to guide children's development in sexual and reproductive health matters, encouraging them to practice reasonable sexual behavior and develop good personal decision making skills (Yadeta, *et al.,* 2014). Some researchers have suggested that the effectiveness of parent communication in influencing adolescent sexual behavior depends on the breadth of communication, that is, whether the communication encompasses a narrow or wide range of topics (Martino, Elliott, Corona, Kanouse, & Schuster, 2008).

Parent-adolescent communication about sexuality, however, is often not very far reaching, because most parents do not feel comfortable or competent talking with their adolescents about sexual and reproductive health issues, they tend to limit to conversations to “safe” topics such as menstruation and other pubertal changes, impersonal aspects of sexuality like reproductive facts and negative consequences such as HIV/AIDS (ibid). Although what parents communicate about sexual reproductive health (SRH) with their children is crucial, equally important is the timing for communication.

Most parents waited for clues that a child was sexually active before they warned and threatened them about the consequences of engaging in sex. Parents communicating only after they realized that their children were sexually active is likely to have had little impact on their protection use (Wamoyi *et al.*, 2010).

Ayalewa *et al*., (2014), in their study, found out that, there were low communication about sexual and reproductive health issues between parent and adolescent. Adolescent discussed about sexual matters more with peers than parents. Parents mainly focused on the negative sexual consequences.

A study in Zimbabwe which involved parents and adolescents blamed lack of communication on issues pertaining to sexuality. Adolescents reported obtaining sexual information, not from adult family members, but primarily from media, schools and peers. Likewise, in the same study, it was shown that, although some mothers and adolescent girls reported communicating about menstruation, most parental communication consisted of vague warnings not to “play” with boys or girls without explaining what this euphemism means (Taffa, Haimmanot, Selamu, Tesfaye, & Mohammed, 2014).

2.3 Gender Differences in Parent-adolescent Communication

Many parents, however, either do not talk to their children about sex at all or have only limited communication on the topic. How much parents talk about sex and what topics they address have been found to differ substantially by the gender of both the parents and the children. Generally, parents are more likely to talk about sexual topics with the same-sex child: fathers are more likely to talk with their sons than their daughters, and mothers are more likely to talk with their daughters than their sons , a number of studies have indicated an association between parent–adolescent communication, especially mother–daughter communication, about sexual topics (sexual initiation, condoms, and STIs) and a reduction in sexual-risk behaviors among adolescent females (Schuster, *et al.,* 2008).

Most mothers discussed with their adolescents about sexual and reproductive health issues, but none of the male participants discussed about menstruation with their daughter. Fathers most of the time discussed with their son and mothers with daughters due to cultural barriers (Ayalewa, *et al.,* 2014).

In terms of preferences, the young people prefer sexuality communication to take place with the parent of the same sex. The South Africa-Tanzania study conducted among young people aged 11-17 years reported that overall, 44% of participants preferred to communicate with mothers about sexuality. While 15% preferred fathers. Mothers were the preferred communication partner by the majority of female adolescents in both Tanzania and South Africa (Bastien, *et al.,* 2011).

Although found less frequently than conversations with mothers, father–daughter conversations may be especially salient for helping girls resist pressure from male partners, that many daughters would like more discussions with fathers about understanding men and resisting pressure from men to have sex. Thus, a father providing information about how to resist pressure may increase an adolescent girl's conviction that she can execute the behaviors required (self-efficacy) to avoid being pressured to have sex in situations in which she & her partner disagrees (Teitelman, Ratcliffe, & Cederbaum, 2013). Study done by Lehr, Dilario, & Lipana, (2000), revealed that, the mother as the primary provider of sexual education to her children, but current data, though minimal, show that the influence of the father is indeed important. Bastien *et al.,* (2011), in a review of studies on parent-child communication about sexuality found out that Kenyan educated mothers reported experiencing socio-cultural and religious inhibitions which make it a challenge to provide sex-education to their daughters. For instance, generational barriers to discussing sexuality were raised as an issue mothers also reported a reliance on the school system to provide sex-education.

There are gender-related patterns in parent-adolescent sexual communication, for example, male and female adolescents were generally more likely to discuss sex with their mothers than with their fathers. Furthermore, males were more likely to discuss sex with their fathers (Somers & Ali, 2011). A study done by Ramos, Bouris, Lee, McCarthy, Shannon, Barnes, & Dittus, (2012), concluded that fathers have the potential to uniquely influence adolescent sexual behavior, yet they have been overlooked in family-based intervention development.

From the literature review on gender and how it affects parent communication it is clear there is a gap on how fathers discuss issues on SRH with their adolescents. There is need for fathers to engage in SRH discussion with both male and female adolescents.

2.4 Parent Marital Status and Parent-adolescent Communication

A study conducted in South Africa found out that adolescent whose father was deceased reported more parent-adolescent communication about sexual issues than those whose parents were married, divorced but both still single, or mothers who had remarried. Also it appears that the main differences in communication about sex in the family were found between adolescents whose father was deceased and those whose parents were divorced (both parents single). However, it is reported that adolescents whose mothers were remarried reported more sexual risk-taking behaviors than those whose parents were remarried, divorced but either still single or where fathers were deceased (Nundwe, 2012).

2.5 Nature of the Family and Parent-adolescent Communication

Nature of the family facilitates easy communication about sexual and reproductive issues. Wang B, Stanton B, Deveaux L., Koci V., & Lunn S. (2015), shows that adolescents who live with their grandparent(s) reported less communication about sexual & reproductive issues, while those who do not live with their grandparent(s) reported more parent –adolescent sexual and reproductive communication. Also adolescents who lived with sibling(s) reported a higher degree of openness of their communication with their parent(s), while those who did not live with sibling(s) reported a lower degree of openness of parent –adolescent communication.

It is important to understand the role of family influence on sexual behavior. Thus parent-adolescent communication regarding sexuality often is viewed as desirable and perceived by many to be effective means of encouraging adolescents to adopt responsible sexual behaviors (Yesus, *et al.,* 2010).

Those adolescents living with father alone or female guardian alone were more likely to experience very poor communication compared to those living with both biological parents and furthermore the probability of very poor communication was high among those respondents living with biological mother alone (Dessie, Berhane, &Worku, 2015).

2.6 Frequency and Content of Discussion

Adolescents whose communication with their parents involved greater repetition of topics perceived their relationship with their parents to be closer, had more positive perceptions about their ability to communicate with their parents in general and about sex specifically and felt that their sexual discussions with their parents occurred with greater openness than did adolescents whose sexual communication with their parents included less repetition of topics (Martino, *et al.*, 2008).

Findings from Kenyan study indicate that while abstinence, unplanned pregnancy and HIV/AIDS were topics of discussion in many families, topics that were rarely discussed included the use of contraceptives and condoms. This was attributed to a number of reasons such as parental fears concerning potential side effects such as infertility, that would contradict their intended message emphasizing abstinence and due to shyness and lack of knowledge (Bastien, *et al.,* 2011).

A multi-stage study done in Tanzania that assessed communication with parents about condoms and abstinence in addition to HIV and AIDS found communication on all topics was generally low and the silence was greatest on the topic of condoms (ibid).

A study done in the USA also found that parents discussed different topics depending on if their adolescent was male or female. Abstinence was discussed more with females than males whereas Sexually Transmitted Diseases (STDs) and Acquired Immune Deficiency Syndrome (AIDS) and protection were discussed more with males. Both male and female adolescents who discussed sex more with their mothers than with peers in this study were less likely to have had sexual intercourse and were more likely to have more conservative values about sex (Somers, *et al.,* 2011).

A study done in Tanzania found out that generally, some communication about sexual health was observed in most families. This communication was usually initiated by parents and rarely by young people and was characterized by warnings or threats. The topics for discussion were mainly about abstinence, unplanned pregnancy and HIV and AIDS. These communications reflected the worries parents had about their children's sexual health. However, among the issues that were rarely discussed in families were measures such as contraception and condoms (Wamoyi, *et al.*, 2010).

In USA, a study revealed that many parents do not talk to adolescents, particularly younger adolescents, about sexual topics. Parents report feeling embarrassed, inadequately informed, and unsure of what to say or how to begin. Parents who feel more confident in their ability to communicate with adolescents are more likely to engage in conversations about sex (BMJ 2008:337: a 306).

Parent–child communication, specifically the communication between mothers and daughters, has proven to be influential in the reduction of sexual-risk behaviors among adolescent girls. What is known is that topic-specific dialogue (i.e., abstinence, condom use, etc.) is consistently more effective than more global forms of communication (i.e., “don’t have sex”) (Teitelman, *et al.,* 2013).

The topic level descriptive analysis done in Ethiopia by Dessie *et al.,* (2015) showed that HIV/AIDS was more communicated and that 51.92% of the adolescents communicated with their mothers and 38.74% with their fathers at a frequency of sometime to always. Here, linked with the HIV/AIDS communication, it was expected condom to be a common communication topic, but it was found the least communicated topic.

A study in Tanzania found out that HIV and AIDS and STIs was the commonly discussed SRH issue in families. All participants had mentioned this is one of their major worries. Therefore, even parents who said had never talked about other SRH issues and neither had any plans of doing so with their children, mentioned that HIV/AIDS was the only thing they had talked about and would continue to talk about. This was because HIV/AIDS was considered a shameful catastrophe, and also one that interfered with the family economic resources and the family lineage through early deaths before young people were able to have families (Wamoyi, *et al.,* 2010).

In a study done in Ethiopia, most parents said that they discussed on diseases like HIV and AIDS, on formal Education/future career and avoiding premarital sex. However, most mothers stated that they had little or no discussion on "sensitive issues “such as menses and sexual intercourse with their adolescents because it is culturally unacceptable and creates discomfort. They said it is inconvenient to discuss such issue

in detail. One mother said that she did not discuss about sexual contact or menses openly but just superficially and in indirect ways. Some thought that talking about this issue in detail may rather encourage or remind adolescents to be engaged in sex (Yesus, *et al.*, 2010).

In a cross-sectional study done in Eastern Ethiopia by Yadeta, *et al.*, (2014), revealed that, the major topics of parent- adolescent communication was STD (97%), early marriage (63%), unsafe sex (50%), and unwanted pregnancy was 43%.

2.7 Factors Affecting Parent-adolescent Communication

In a multi-site study conducted in South Africa and Tanzania, higher social economic status was similarly found to be significantly associated with more frequent communication with parents in both of the South African sites (Nundwe, 2012). In a randomized controlled study, it was found out that parents had many reasons for not being actively involved in their children's sex education- for example, they may feel embarrassed about the topics, uninformed about the facts, or unsure of how and at what age to address various issues (MBJ 2008:337:a 306).

In a systematic review of studies from Sub-Saharan Africa on parent- child communication, revealed that Parent-child discussions about sexuality are not common in rural Nigeria where it remains taboo to do so. Parents tend to portray sexuality as 'dangerous, unpleasant, and unsavory' in discussions with their children and tended to use threats and indirect speech in discussions. Parents worried that discussions would encourage early sexual experimentation (Bastien, *et al.*, 2011).

In studies conducted in Nigeria and Kenya, it was found that the education level of the parents was associated with whether or not sexuality and HIV and AIDS had been discussed, with those having a higher level of education most likely to have had

communication with their children, Social and cultural norms which demarcate the boundaries surrounding sexuality communication with children in SSA which need to be addressed in efforts to promote and improve communication (ibid).

Recent research showed that the conservative norm and taboos on sexuality, ill-preparation have largely limited the parents 'involvement on SRH communication with their children *(*Dessie *et al*., 2015). Reasons for not discussing SRH issues between parents and adolescents in Harar, Ethiopia were lack of awareness (60.8%), fear of discussing (51.4%) belief that it would initiate sex (33.8%) and cultural norms (24.9%). Discussion of SRH issues was higher among parents who had completed some form of education compared with parents who had no formal education. Also housewives demonstrated 50% lower tendency to discuss SRH issues compared government employees (Yadeta, *et al*., 2014).

Triggers for discussion about HIV and AIDS, were that parents frequently used examples of relatives who had died of AIDS to initiate a discussion and to reiterate the severity of the disease. Other triggers for discussion reported by parents in this study were radio programs, flyers, parental perceptions of risky sexual behavior, or seeing some- one they believed was HIV positive, for instance due to thinness (Bastien, *et al*., 2011).

Parent perceiving a child's behavior as risky and they saw a very slim person they perceived was HIV positive. Examples of things that parents perceived as cues to being sexually active were being found chatting with a potential sexual partner, returning home late, befriending peers parents disapproved of their sexual behavior and a child sneaking out or discretely inviting home sexual partners during the night. The

communication was mainly in one direction with the parent delivering the warning and the young people expected to listen and heed advice (Wamoyi *et al.,* 2010).

2.8 Knowledge towards Sexual and Reproductive Health Issues

The findings from a study done in Eastern Ethiopia showed that more than seventy-five percent of students knew about common sexual transmitted infections including the current pandemic HIV and AIDS. Eight out of every ten students knew contraceptive methods to prevent unwanted pregnancy (Ayelewa, *et al.,* 2014).

Analysis of the 2014 demographic and health survey in Kenya showed that three quarters of the youth aged 15-24 years knew at least one contraceptive method. Awareness was found to be lower among unmarried youth who are not sexually experienced (KDHS, 2014). A study in North West Ethiopia established that students whose mother was able to read and write were more likely to communicate SRH issues with their parents than those students whose mother was unable to read and write (Shiferaw, *et al.,* 2014).

Knowledge of SRH issues in a study in Eastern Ethiopia reported that 67.4% of the participants knew what SRH means, when it came to specific components of SRH mentioned by the participants included STD (64,5%), Family planning (50.2%), early marriage (49.4%) and on consequences of unprotected sex, 90% mentioned STD followed by unwanted pregnancy (64.8%) and unsafe abortion was 38.8%, hence the overall score on knowledge on SRH demonstrated poor knowledge of SRH 35.7% (Yadeta, *et al.,* 2014).

From the literature review on knowledge towards sexual and reproductive health issues, it is evident that adolescents need to be empowered with information on SRH issues to be able to communicate likewise mothers of the adolescent whose level of education is low they need to be empowered in order to be able to communicate with the adolescents. There is need to carry out a study to establish the knowledge level of adolescent on SRH issues.

2.9 Summary of Reviewed Literature

Parents and family can be influential sources of knowledge, beliefs, attitudes and values for children and adolescents. It is evident from the literature review that, there is limited availability of literature on parent-adolescent communication in developing countries; hence there is need for research to understand the extent to which parent-adolescent communication on sexual and reproductive health take place.

A systematic review of studies from Sub-Saharan Africa on parent child communication has indicated that talking about sexuality is rare and is regarded as a taboo among many African communities. However, when it does take place, mothers seem to play a more active role in its initiation than fathers. Nevertheless, the common adolescent source of sexual and reproductive health information is from fellow peers and media. A study done in Ethiopia observed that adolescent rely more on each other and the media for sexuality information and less on other family members.

The literature review indicates that there is limited research on parent-adolescent communication on sexuality in the African context. Several studies reviewed have focused on establishing statistical biomedical knowledge on HIV and AIDS.

It is clear from the literature review that, majority of the parents fear discussing sexual and reproductive health matters as they feel that their adolescents will engage in early sexual activities if they discussed with them and likewise, the adolescents fear talking with their parents on sexual and reproductive matters as they feel parents will reprimand them and also parents will think the adolescents know more about sexual and reproductive health and they should be practicing what they are discussing with their parents.

It is evident from the literature review that there are several factors affecting parent-adolescent communication, which includes, parents are not aware of what they are supposed to discuss with their adolescents, they also fear discussing with their adolescents and they fear that discussing sexual and reproductive matters with the adolescents will initiate sexual activity early and hence there is need to explore if the same applies in Sirisia Sub-County.

The gaps identified from the literature review showed scanty information on parent adolescent communication on SRH issues as there are no studies done in Kenya. Most studies reviewed have either assessed the adolescents alone or interviewed parents alone and hence the current study focuses on both the students and parents in trying to assess parent- adolescent communication on sexual and reproductive health among secondary school students.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

In this chapter, methodology of the study was discussed and was done under the following headings: study area, research design, study population, sampling method and sample size determination, data collection instruments, pilot study, validity of the research instruments, reliability of the research instruments, data management and storage, data analysis and presentation and Ethical consideration.

3.2 Study Area

The study was conducted in Sirisia sub-county; one of the nine sub- counties in Bungoma County. Sirisia borders Kabuchai Sub-County to the East, Mt Elgon Sub-County to the North, Kanduyi Sub-County to the South and stretching West to the Uganda border. It covers an area of approximately 187.5 Square kilometers and it lies between longitudes 43^0 22' 04.11" E and 34^0 24' 59.04"; Latitudes 0^0 47' 11.82" N and 0^0 38' 09.73"N. The sub-county has 4 Wards, 7 locations and 15 sub-locations and 36 secondary schools. It's headquarter is in Sirisia town and has a population of 122,988 (KNBS 2010). Sirisia Sub-County is mostly occupied by minority tribes of Teso and the Sabaot amidst the majority Bukusu of the larger Luhya community. The major economic activities are farming and business. They grow cash crops that include sugar cane, coffee and sunflower; they also practice poultry and dairy farming. The area experiences high rainfall throughout the year (see Appendix X).

3.3 Research Design

A descriptive cross-sectional study design was used in this study. A mixed method approach was utilized in data collection. Research design is the plan and structure of investigation so conceived as to obtain accurate answers to research questions. The plan is the overall scheme or program of the research (Robson, 2002). Cross sectional research design can be used to prove or disapprove assumptions, not costly to perform and does not require a lot of time, captures specific point in time and contains multiple variables at the time of the data snapshot. The study adopted cross sectional research design to establish whether there exists communication on sexual and reproductive health issues between parents and among adolescents in secondary School in Sirisia Sub- County. The study focused on the sources of adolescent communication on sexual and reproductive health, the factors affecting parent- adolescent communication on sexual and reproductive health and the level of knowledge perception of parents and adolescents on sexual and reproductive health in the sub-county.

3.4 Study Population

The study population consisted of secondary school students and parents in Sirisia sub-county. Sirisia sub-county has a total of 29 public secondary schools with a student population of 8547 according to statistical report of Sirisia education bureau 2015. with majority of the students being day scholars. The secondary school students aged 14-19 years were taken as the unit of analysis because it is assumed that it is at this age that is generally accepted where parents should be discussing with their adolescents on sexual and reproductive health issues and at secondary school where there is a lot of peer pressure, while parents with this age category should be in a position to communicate effectively to their adolescents as this is the critical age where secondary sexual characteristics are marked and adolescents are bound to experiment

these changes and hence parental guidance is highly recommended. Also targeted were parents of the adolescents. Teachers were taken as key informants.

3.5 Sampling Techniques and Sample Size Determination

3.5.1 Sampling Techniques

According to Orodho (2005), sampling is a technique where the investigator seeks information about a whole population, objects or events by observing a sample, and extending the findings to the entire population. One importance of sampling is that it saves time and money. The sampling unit for this study was the school. Cluster sampling technique was used to select the Schools because the cluster which is the school occurs naturally and makes easier for the method to be used. Importance of Cluster sampling is that it saves time for listing and implementation, most economical form of sampling, suitable for survey of institutions, larger sample for a similar fixed cost. Each of the school was considered as a cluster from which sampling of the students was done. This was because each school has unique characteristics in terms of physical features, population densities and social amenities. 29 secondary schools were randomly selected. The calculated sample size of 697 students was proportionately distributed to each of the 29 secondary schools. Then using systematic random sampling students were recruited in the study. Systematic random technique reduces human bias in the selection of cases to be included in the sample and as such it provides a sample that is highly representative of the population, it also allows to make generalizations from the sample to the population (Kothari, 2004) The total schools that were included in the study was the sum total of all sampled school students from all the randomly selected schools.

According to Mugenda & Mugenda (2003), to minimize biased results, many clusters with few individuals per cluster should be chosen, rather than few clusters with many individuals. Purposive sampling is a non- probability sampling technique where subjects are selected because of their convenient accessibility and proximity to the researcher, it is easy to get a sample of subjects with specific characteristics and researchers are able to draw on a wide range of qualitative research designs. Purposively parents were involved in four focus group discussions and students were also purposively involved in eight FGDs to explore parent perception and barriers about communication on sexual and reproductive health. Each focus group comprised of 12 parents giving a total of 48 and 12 students both males and females with a total of 48 males and 48 females. For Key informants, 29 principals of secondary schools or guiding and counselling teachers were purposively recruited in the study.

3.5.2 Sampling Size Determination

Sample size determination was determined using Fisher's formulae (Mugenda & Mugenda, 2003)

$n=Z^2P\ (1-P)/d^2$

Where n =sample size

Z=Z statistic for a level of confidence, standard normal value corresponding to 95% confidence interval (1.96)

P=29% (Proportion of students communicating on SRH issues with parents which was taken from previously done study (Shiferaw, *et al.*, 2014)

e= Precision (0.05

D =Design Effect^2

The formula for calculating the sample size where N <10,000 (8547)

n=D [(Z^2P (1-P)]/e^2

= 1.96^2x0.29x 0.71/0.05^2

n= 317

Design Effect therefore, the sample size should be about double that of the corresponding sample size in a study using simple random sampling because of the heterogeneous clusters.

Assuming 10% non-response rate, and due to the design effect, the sample size was;

n = 697students to be sampled.

The final sample size was 697 students

Table 3.1 School and Population of Students

Name of Secondary School	Student Population	Sample Size
Namangufolo	312	26
Friends School Kulisiru	162	13
Karibuni Girls	180	15
Geoff Brown Girls	187	15
St. Antony Sirisia	389	31
Bisunu Friends School	295	24
Ndakaru S.A	250	20
Kabkara Secondary	446	36
ACK Lwandanyi	296	24
ACK Tulienge	175	14
ACK Jennifer joo	202	16
ACK Machakha	224	18
ACK Chebukuyi	203	17
St. Augstine Sitabicha	140	12
Arch Bishop Wabukala	400	33
Bukokholo	400	33
S.A Mufungu	178	14
Tamulega ACK School	200	16
AC Butonge	442	36
Malakisi Muslim	168	13
Friends School Kikai Girls	200	17
S.A Binyenya Girls	222	18
Toloso Secondary	500	40
S.A Kaptanai	202	17
S.A Sibumba	160	13
Kolani Friends Secondary	200	16
Chwele Girls High School	1082	88
Namwela Boys Secondary	422	34
Kikai Boys	350	28
Total	8547	697

Source: Sirisia Sub-County Education Bureau 2015

Table 3.2 Sample Matrix

Study Population Unit	Sampling Method	Sample Size
Secondary School	Cluster	697
Students	Purposive	96
Parents	Purposive	24
Teachers	Purposive	29

3.6 Data Collection Instruments

3.6.1 Questionnaire for Students

Data collection from students involved the administration of questionnaire prepared in English because it was assumed that in secondary school the main language of communication is English. The questionnaire consisted of a number of questions printed or typed in a definite order on a form. The questions were multiple choice and open-ended questions, multiple choice, the respondent selects one of the alternative possible answers to put while in open-ended, one has to supply the answer by his own words (Kothari, 2004). The questionnaire consisted of social-demographic characteristics and sexual behavior of students. The questions included in the questionnaire were adapted from Global school-based student Health survey (GSHS), Core Expanded Questions for the module on sexual behaviors (World Health Organization, 2010). The questions that were used in the study were multiple choice and open-ended questions. The multiple choice questions are convenient, easy and take less time to answer because options are available to the respondents from which they tick options. The questions were constructed based on the study objectives.

3.6.2 Interview Guide

An interview is an oral administration of a questionnaire or an interview schedule. To obtain accurate information through interview the researcher needs to obtain the maximum co-operation from the respondents. The interview guide has a general plan that interviewer follows Mugenda & Mugenda (2003). In the current study, 29 Key Informants (KIs) were spread among the study schools. The teachers that were key informants were like "natural observers" often interested in the behavior of adolescents around them. The teachers gave their views on adolescent's behavior while in school to fill the gap of the student responses that were not sincere.

3.6.3 Focus Group Discussions

Questions for focus group discussion for parents was adopted from similar previous studies done Uganda to assess perceptions of parent and students to communication between Parents and adolescents on SRH issues and then modified. Open-ended questions were formulated that guided the focus group discussion. Data was collected from purposive samples of 12 Focus group discussions of which, 4 FGD for male students giving 48 participants, 4 FGD for female students with a total of 48 participants, male parents were 2 FGD with a total of 24 participants and 2 FGD of female parents with a total of 24 participants. Participating parents were invited to the study through invitation by their children. Moderation, audio recording and note taking was done by trained youthful and research assistants, the male research assistants conducted FGD for males while the females conducted for females. To avoid disruption of school programs, the FGDs with students were conducted at games time. The FGD was to try to explore parent and student perceptions on adolescent communication on sexual and reproductive issues. Some students could not give

sincere responses in the questionnaire, this problem was overcome by administering interview guide on parents, teachers and students to fill the gap.

Table 3.3 Population and Interview Methods

Target population	Interview Method/Tool	Total Sample
Secondary School Students	Administered Questionnaire	697
	Interview Guide	8 FGD (12 Members each)
Parents	Interview Guide Checklist	4FGD (12 members each)
Secondary School Teachers	Interview Guide for key informants	29

3.7 Pilot Study

Pilot study was done in order to pretest the tools to ensure that the instruments test what they were supposed to test and are consistent. The aim of carrying the pilot study was to ascertain validity and reliability of the research instruments which were discussed in the two subsequent sections. Students and respondents who participated in the pilot study were not included in the main study.

3.7.1 Validity of the Research Instruments

Validity is the accuracy and meaningfulness of inferences, which was basically on the research results (Mugenda & Mugenda, 2003). Constant validity was used. Constant validity refers to the degree to which the research instruments or test measures which it should measure. To ensure validity of the research instruments the researcher carried

out a pilot study on 70 students from 5 schools and 5 parents. This enabled the researcher to correct ambiguous items on the research instruments before giving them to the supervisors to ascertain content validity of the research instruments. All necessary corrections and modifications to the instruments were made sharpen their clarity and content. The variables in the research were measured through various questions that were presented in a questionnaire.

3.7.2 Reliability of the Research Instruments

Reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials (Mugenda & Mugenda, 1999). The reliability of the measurement of instrument was assessed using Cronbach's alpha reliability coefficient which is a test for internal consistency in items. Thus each item was correlated with other items in a scale. The test used to ascertain the reliability of the instruments was:

$$r = \frac{Sxy}{\overline{Sy}}$$

That is $$\frac{\text{Covariance xy}}{\text{Std. dev. x X Std. dev. y}}$$

Where by Sx and Sy are respectively the sample standard deviation for x and y. Consequently, an alpha value of 0.7 or higher was deemed to indicate that the measurement scale was reliable. A reliability of coefficient between 0.6 and 0.7 is accepted in line with suggestion (Hair, Anderson, Tatham, & Black, 2015). For this research the reliability coefficient for student questionnaire was 0.75. Therefore, the research instruments were reliable as the correlation coefficient of the instruments was closer to one.

3.8 Data Management, Storage, Analysis and Presentation

3.8.1 Data Management and Storage

The data collected was then entered in to Statistical Package for Social Scientists (SPSS) or appropriate statistical software. Data was kept in personal computer with backups made on CDS flash disks and e-mail. Responses from FGD and direct quotes from open-ended questions were typed into word file. Notes recorded during FGD were indexed, coded and conceptualized in some format in order to reduce the data to a manageable form.

3.8.2 Data Analysis and Presentation

Odds ratio was used to analyze quantitative data. Odds ratio less than 1.0 or more than 1.0 shows significant association. Results were presented in frequency tables and /or any other appropriate statistical procedures applied.

Content analysis was employed to analyze qualitative data. First the researcher transcribed qualitative data verbatim. The interviews were then read and reread for an overall understanding. Interpretive summaries of each interview were then written. The transcribed interviews were analyzed and disagreement regarding the interpretations of the interviews and their themes and categories were resolved by going back and forth to the transcribed data. Common meanings and shared descriptions and expressions were identified by comparing and contrasting the text to allow the themes to emerge.

3.9 Ethical Considerations

3.9.1 Ethical Clearance

The researcher obtained a research approval letter from School of Graduate Studies of Masinde Muliro University of Science and Technology to be able to proceed and process a research permit, (see Appendix VII). Scientific and ethical approvals were obtained from Masinde Muliro University Ethical Review Committee, (see Appendix VIII). A research permit was obtained from the National Commission for Science, Technology and Innovation, (see Appendix IX). Permission was sought from Bungoma County Commissioner and Bungoma County Director of Education and sub-county education officer of Sirisia and Secondary school administration.

3.9.2 Consent and Confidentiality

Informed consent was obtained from teacher or parents before administration of the questionnaire. The consent form was read and explained in details, the purpose of the study and contents of the questionnaire by the principal investigator and the research assistants. Then the participants then either agree or decline to sign the informed consent form. Participation was voluntary and participants were assured of their right to withdraw at any point without any negative consequences. The study did not infringe on the privacy of the participants.

Participants were informed of the importance of the study and the potential benefits to the students. Interviews were conducted on one- to-one interaction with the identified students. The information obtained was held in strict confidence. Only serial numbers were entered in to the questionnaire and names were not used.

CHAPTER FOUR

RESULTS

4.1 Introduction

This chapter presents data collected from the various respondents. The data was interpreted according to research objectives. The data is presented in form of frequency and percentage tables. It also contains summary of data analysis on all the three objectives: to determine the level of knowledge of parents and adolescents towards sexual and reproductive health: to determine the sources of information for adolescent communication on sexual and reproductive health and to identify the factors affecting parent-adolescent communication.

4.2 Response Rate

The study targeted a sample size of 697 respondents from which 600 filled in and returned the questionnaires making a response rate of 86.1%. The response rate was achieved since the study was conducted in a school set up where most of the respondents were readily available. Both parent and adolescent focused groups were done 4 and 8 respectively. 29 teachers participated as sampled as shown in Table 4.1. There was also good coordination of the data collection exercise which was supported by the teachers of various schools involved in the study. This response rate was satisfactory to make conclusions for the study. According to Mugenda & Mugenda (1999), a response rate of 50 percent is adequate for analysis and reporting; a rate of 60 percent is good and a response rate of 70 percent and over is excellent. Based on the assertion, the response rate was considered to be excellent.

Table 4.1 Response Rate

Category	Sample size	Response	%
Questionnaire for students	697	600	86.1
FGD for students	8	8	100
FGD for parents	4	4	100
Interview for teachers	29	29	100

Source: (Field Data 2016)

4.3 Socio-demographic Characteristics

The study examined the socio-demographic characteristics of adolescents who took part in the survey. The findings from Table 4.2 show that majority (66.2%) of adolescents were within the age group of less than 18 years. More than one-half (55.8%) were males with more than two-thirds (68.8%) living in urban areas. Three-quarters (75%) were Christians. One-half (50.1%) were of Bukusu ethnicity with a comparable proportion of Teso (15.7%) and Sabaot (17.7%).

The results from Table 4.2 also showed that 73.1% were staying with their parents with only 0.5% staying alone. Most of the respondents (61.7%) were from a family composition ranging between 4-6. Majority (32.6%) were in Form IV a more or less similar proportion in Form II (25.5%) and Form III (24.9%).

Table 4.2 Socio-demographic Characteristics of Respondents

Variable	n	%
Age categories (years)		
< 18 years	397	66.2
>= 18 years	203	33.8
Total	**600**	**100.0**
Sex		
Male	335	55.8
Female	265	44.2
Total	**600**	**100.0**
Place of residence		
Rural	187	31.2
Urban	413	68.8
Total	**600**	**100.0**
Religion		
Christian	450	75.00
Muslim	97	16.2
Other	53	8.8
Total	**600**	**100.0**
Ethnicity		
Teso	94	15.7
Sabaot	106	17.7
Bukusu	301	50.1
Other	99	16.5
Total	**600**	**100.0**

Living arrangement		
Stay with both parents	439	73.1
Stay with father	13	2.1
Stay with mother	85	14.2
Stay with friends	10	1.7
Stay alone	3	0.5
Stay with relatives	49	8.2
Other	1	0.2
Total	**600**	**100.0**
Family size		
< than 3	88	14.7
4 – 6	370	61.7
> 7	142	23.6
Total	**600**	**100.0**
Respondent's class		
Form I	102	17.0
Form II	153	25.5
Form III	149	24.9
Form IV	195	32.6
Total	**600**	**100.0**

4.4 Respondent's Parental Characteristic

From the results in Table 4.3 more than half (60.5%) of respondents' fathers had attained either secondary or tertiary education unlike their mothers, three-quarters (74.5%) of whom had none or primary education. Similarly, while two-thirds (66.2%) of the fathers were employed, 69.7% of the mothers were housewives.

Table 4.3 Respondent's Parental Characteristics

Characteristics	N	%
Educational level of father		
None	75	12.5
Primary	162	27.0
Secondary	178	29.7
Tertiary	185	30.8
Total	**600**	**100.0**
Educational level of mother		
None	177	29.6
Primary	269	44.9
Secondary	106	17.7
Tertiary	47	7.8
Total	**599**	**100.0**
Father's occupation		
Unemployed	203	33.8
Employed	397	66.2
Total	**600**	**100.0**
Mother's occupation		
Housewife	417	69.7
Employed	181	30.3
Total	**598**	**100.0**

Source:(Field data2016)

i. To determine the level of knowledge of parents and adolescents towards sexual and reproductive health

4.5 Knowledge about Sexual and Reproductive Health

Respondents were asked to name family planning methods, sexually transmitted infections, consequences of unprotected sex and components of sexual and reproductive health that they know. A comparison between males and females from Table 4.4 showed that most of the males (42.7%) know about condoms while an equal proportion of females knew condoms (27.2%) and abstinence (27.9%). The least known by the two categories of gender was IUCD with 0.6% males and 1.1% of females mentioning this.

Regarding sexually transmitted infections, from the results in table 4.4 more than half in each category were aware of HIV and AIDS of which 53.1% of male and 61.9% of female adolescents confirmed the same. Females were less aware of syphilis (8.3%) and Candidiasis (1.9%).

From the results in Table 4.4 an equal proportion of males (43.6%) and females (43%) were aware of unwanted pregnancy being one of the effects of unprotected sex. Also mentioned with higher frequency was STI/HIV and AIDS as stated by 36.7% of males and 33.6% of females.

While most of the females (54%) discussed menstruation with their parents, males mainly discussed about STI/HIV and AIDS (36.5%) and early marriage (36.9%). Females least talked about unwanted pregnancy (11.3%) and early marriage (11.7%) as indicated in Table 4.4.

Table 4.4 Knowledge About Sexual and Reproductive Health

Family planning methods	**Male**		**Female**	
stated	**n**	**%**	**N**	**%**
Abstinence	71	21.2	74	27.9
Condom	143	42.7	72	27.2
Oral pills	72	21.5	70	26.4
Depo Provera	15	4.5	19	7.2
Implant	8	2.4	12	4.5
IUCD	2	0.6	3	1.1
Using safe method	24	7.2	15	5.7
Total	**335**	**100.0**	**265**	**100.0**
Sexually Transmitted Infections stated				
HIV & AIDS	178	53.1	164	61.9
Gonorrhea	102	30.5	74	27.9
Syphilis	38	11.3	22	8.3
Candidiasis	17	5.1	5	1.9
Total	**335**	**100.0**	**265**	**100.0**
Consequences of unprotected sex stated				
STI/HIV&AIDS	123	36.7	89	33.6
Unwanted pregnancy	146	43.6	114	43.0
Unsafe abortion	31	9.3	41	15.5
Others	35	10.4	21	7.9
Total	**335**	**100.0**	**265**	**100.0**

Components discussed with the parents				
Menstruation	9	2.7	143	54.0
Unwanted pregnancy	80	23.9	30	11.3
STI/HIV&AIDS	122	36.5	61	23.0
Early marriage	123	36.9	31	11.7
Total	**334**	**100.0**	**265**	**100.0**

Source: (Field data, 2016)

4.6 Perceived Knowledge about Components of Sexual and Reproductive Health (SRH)

Knowledge on sexual and reproductive health (SRH) was subjectively tested by asking adolescent about their perceived level of knowledge on specific components of SRH. Again a comparison between males& females was done. The results in Table 4.5 below indicated that perceived knowledge level was high among males and females on the following components: Family planning methods, STI/HIV and AIDS, unwanted pregnancy, menstruation, early marriage, physical change and sexual violence. Over 90% in each gender category confirmed that they were knowledgeable. While earlier on a smaller (11.3%) proportion of females discussed the subject of unwanted pregnancy, 98.9% were confirmed that they were knowledgeable about it.

Table 4.5 Perceived Knowledge About Components of Sexual and Reproductive Health (SRH)

Components of SRH	Level of knowledge	Male		Female	
		n	%	n	%
FP methods	Knowledgeable	327	97.6	257	97.0
	Not knowledgeable	8	2.4	8	3.0
	Total	**335**	**100.0**	**265**	**100.0**
STI/HIV&AIDS	Knowledgeable	318	94.9	254	95.8
	Not knowledgeable	17	5.1	11	4.2
	Total	**335**	**100.0**	**265**	**100.0**
Unwanted pregnancy	Knowledgeable	332	99.1	262	98.9
	Not knowledgeable	3	0.9	3	1.1
	Total	**335**	**100.0**	**265**	**100.0**
Menstruation	Knowledgeable	329	98.2	262	98.9
	Not knowledgeable	6	1.8	3	1.1
	Total	**335**	**100.0**	**265**	**100.0**
Early marriage	Knowledgeable	311	92.8	260	98.1
	Not knowledgeable	24	7.2	5	1.9
	Total	**335**	**100.0**	**265**	**100.0**
Physical change	Knowledgeable	311	92.8	245	92.4
	Not knowledgeable	24	7.2	20	7.6
	Total	**335**	**100.0**	**265**	**100.0**
Sexual violence	Knowledgeable	313	93.4	258	97.4
	Not knowledgeable	22	6.6	7	2.6
	Total	**335**	**100.0**	**265**	**100.0**

Source: (Field data, 2016)

ii) To Determine the Sources of Information for Adolescent Communication on Sexual and Reproductive Health

4.7 Sources of Parent-adolescent Communication

The most common source of parent-adolescent communication on SRH were peers and friends for males as indicated by the results from Table 4.6 below 93.7% and 95.1% for females. This was followed by self-decision as expressed by 93.1% of males and 94% females. There was limited communication among male (16.7%) and female adolescents (5.5%) and their parents. Such communication was also low between the male adolescents (19.7%), females (18.9%) and teachers. Among family members, siblings were more important sources of SRH communication (92.4%) for females than males (80.9%).

Table 4.6 Sources of Parent-adolescent Communication

Sources of communication	Level of knowledge	Male		Female	
		n	%	n	%
VCT	Agree	152	45.4	124	46.8
	Disagree	183	54.6	141	53.2
	Total	**335**	**100.0**	**265**	**100.0**
Self-decision	Agree	312	93.1	249	94.0
	Disagree	23	6.9	16	6.0
	Total	**335**	**100.0**	**265**	**100.0**
Peers and friends	Agree	314	93.7	252	95.1
	Disagree	21	6.3	13	4.9
	Total	**335**	**100.0**	**265**	**100.0**
Siblings	Agree	271	80.9	245	92.4
	Disagree	64	19.1	20	7.6
	Total	**335**	**100.0**	**265**	**100.0**
Parents	Agree	56	16.7	15	5.7
	Disagree	279	83.3	250	94.3
	Total	**335**	**100.0**	**265**	**100.0**
Teachers	Agree	66	19.7	50	18.9
	Disagree	269	80.3	215	81.1
	Total	**335**	**100.0**	**265**	**100.0**

Source: (Field Data, 2016)

4.8 Who the Adolescent Are Comfortable Discussing SRH with and Frequency with which Discussion takes place

From the results in Table 4.7 below the adolescents that were interviewed were more comfortable discussing SRH matters with friends as mentioned by males (45.4%) and females (46.8%). This was closely followed by peers of the same sex for males (39.7%) and for females (25.3%). Only 7.2% of males and 13.7% of females engaged their father or mother on such issues. The frequency of discussion with parents on SRH issues ranged from once a month (14.6%), twice a year (21.5%), once a year (22.4%) and 'never' (41.3%). For females, the frequency ranged from once a month (14.3%), once a month (17.7%), twice a year (33.2%) to 'never' (34.3%).

Table 4.7 Who the Adolescent is Comfortable Discussing SRH with and Frequency with which Discussion take Place

Who the adolescent is	**Male**		**Female**	
comfortable discussing SRH with	**N**	**%**	**n**	**%**
Father	10	3.0	2	0.7
Mother	14	4.2	35	13.2
Friends	152	45.4	124	46.8
Peers of same sex	133	39.7	67	25.3
Others	26	7.8	37	14.0
Total	**335**	**100.0**	**265**	**100.0**

Frequency with which adolescent discusses components of SRH with parents				
Once a month	49	14.6	47	17.7
Twice a year	72	21.5	88	33.2
Once a year	75	22.4	38	14.3
Never	138	41.3	91	34.3
Other	1	0.3	1	0.4
Total	**335**	**100.0**	**265**	**100.0**

Source: (Field data, 2016)

iii) Factors affecting parent adolescent communication on SRH

4.9 Factors Affecting-adolescent Communication

Responses to the question on factors affecting parent-adolescent communication on SRH issues were explored using Likert Scale responses of Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree with the first response category being assigned a score of 1 and the last one a score of 5. These were collapsed during analysis to either Agree (Strongly Agree and Agree) or Disagree (Neutral, Disagree and Strongly Disagree). From Table 4.8 below the results indicate that the leading factors among males were cultural norms (95.5%) and fear of discussion such issues (93.1%). The same was mentioned by female counterparts, majority of whom mentioned cultural norms (96.2%) and fear of discussing the matter (95.1%). Whereas more females (94%) cited belief that it would initiate sex, a comparatively smaller proportion of males

(82.7%) shared the same view. Parents' case was cited as being too busy by 88.7% of the male and 92.4% of female adolescents.

Table 4.8 Factors Affecting Parent-adolescent Communication

Components of SRH	Level of knowledge	Male		Female	
		n	%	n	%
Parents not aware	Agree	267	79.7	219	82.6
	Disagree	68	20.3	46	17.4
	Total	**335**	**100.0**	**265**	**100.0**
Fear of discussing	Agree	312	93.1	252	95.1
	Disagree	23	6.9	13	4.9
	Total	**335**	**100.0**	**265**	**100.0**
Cultural norms	Agree	320	95.5	255	96.2
	Disagree	15	4.5	10	3.8
	Total	**335**	**100.0**	**265**	**100.0**
Religious beliefs	Agree	294	87.8	237	89.4
	Disagree	41	12.2	28	10.6
	Total	**335**	**100.0**	**265**	**100.0**
Belief that it would initiate sex	Agree	277	82.7	249	94.0
	Disagree	58	17.3	16	6.0
	Total	**335**	**100.0**	**265**	**100.0**
Parents too busy	Agree	297	88.7	245	92.4
	Disagree	38	11.3	20	7.6
	Total	**335**	**100.0**	**265**	**100.0**

4.10 Factors Associated with Perceived Knowledge on Sexual and Reproductive Health among Adolescent

Bivariate logistic analysis was conducted to determine factors that were associated with adolescent's perceived knowledge about SRH. Independent variables were broadly categorized under socio-demographic characteristics, sources of information on SRH and factors affecting discussion about SRH issues. The dependent variable was perceived knowledge on SRH components or lack of it. The outcome variable was measured using a Likert Scale with responses being 'knowledgeable' or 'not knowledgeable.'

Odd ratio (OR) was used to measure the strength of association. If OR is greater than 1, it shows that the odds of that outcome happening in the presence of the independent variable is greater than the odds of the same outcome in the absence of that independent variable. When OR is less than one, e.g. 0.8 then we take the reciprocal of OR which suggests that the outcome is less likely to occur with risk factor (independent variable).

4.11 Socio-demographic Factors Associated with Perceived Knowledge on Sexual and Reproductive Health among Adolescents.

Results from the analysis in Table 4.9 below showed, that those aged 18 years and above were 50% less likely to be knowledgeable than their counterparts aged less than 18 years (OR: 0.5; 95% CI: 0.4 – 0.8; p=0.002). There was a statistically significant association between males & females and level of knowledge with 40% the males being less likely to be knowledgeable (OR: 0.6; 95% CI: 0.4 – 0.9; p=0.02). Another factor of significant association was being a Teso where the category of adolescents from this ethnic group were 50% less likely to be knowledgeable compared with the other ethnic groups (OR: 0.5; 95% CI: 0.3 – 0.8; p=0.003). Equally adolescents from rural areas were 50% less likely to be knowledgeable in comparison to those from

urban settings (OR: 0.5; 95% CI: 0.3 – 0.7; p=0.0005) with the association being highly significant. Level of education of parents also influenced adolescent's perceived knowledge level.

Those whose fathers had no education or had attained primary education were 60% less likely to be knowledgeable than those whose parents had secondary or tertiary education (OR: 0.4; 95% CI: 0.3 – 0.6; $p < 0.0001$). On the contrary, those whose mothers had either no education or had reached primary level were 1.6 more likely to express being knowledgeable than those with mothers who had attained secondary of tertiary education (OR: 1.6; 95% CI: 1.1 – 2.4; $p < 0.02$). Living with both parents compared with the rest of the living arrangements resulted in marginal association (OR: 1.5; 95% CI: 1.0 – 2.2; p=0.06) suggesting that those living with both parents were one-and-a half more likely state that they were more knowledgeable than their counterparts. Class category, being a Sabaot or Bukusu, family size and father's or mother's occupation were not significantly associated with expressed perceived knowledgeable about SRH issues.

Table 4.9 Socio-demographic Factors Associated with Perceived Knowledge on Sexual and Reproductive Health among Adolescents

Risk factor	Perceived Knowledge about SRH		Overall OR	95% CI	P value
	Knowledgeable n=441	Not knowledgeable n=159			
Age group:					
>= 18 years	65.5	34.5	0.5	0.4 – 0.8	**0.002**
< 18 years	77.6	22.4			
Gender:					
Male	69.6	30.4	0.6	0.4 – 0.9	**0.02**
Female	78.5	21.5			
Class:					
Form III/IV	70.6	29.4	0.7	0.5 – 1.0	**0.07**
Form I/II	77.3	22.7			
Religion:					
Christian	72.4	27.6	0.8	0.5 – 1.2	0.3
Muslim and others	76.7	23.3			
Ethnicity:					
Teso	60.6	39.4	0.5	0.3 – 0.8	**0.003**
Others	75.9	24.1			
Ethnicity:					
Sabaot	72.6	27.4	0.9	0.6 – 1.5	0.8
Others	73.7	26.3			
Ethnicity:					
Bukusu	74.4	25.6	1.1	0.8 – 1.6	0.6
Others	72.6	27.4			
Residence:					
Rural	64.2	35.8	0.5	0.3 – 0.7	**0.0005**
Urban	77.7	22.3			
Living arrangement:					
Lives with both parents	75.6	24.4	1.5	1.0 – 2.2	0.06
Others	67.7	32.7			
Family size:					
< than 3	65.9	34.1	0.6	0.4 – 1.1	0.08
>=3	74.8	25.2			
Father's education level:					
None/primary	62.9	37.1	0.4	0.3 – 0.6	**< 0.0001**
Secondary/tertiary	80.4	19.6			
Mother's education level:					
None/primary	76.0	24.0	1.6	1.1 – 2.4	**0.02**
Secondary/tertiary	66.2	33.8			
Father's occupation:					
Unemployed	69.5	30.5	0.7	0.5 – 1.1	0.1
Employed	75.6	24.4			
Mother's occupation:					
Housewife	74.6	25.4	1.2	0.8 – 1.8	0.4
Employed	71.0	29.0			

4.12 Association between Sources of Information about SRH and Knowledge on Sexual and Reproductive Health among Adolescents.

The analysis as shown in Table 4.10 below indicated that, VCT as a source of information about SRH was negatively associated with knowledge on SRH among adolescents (OR: 0.5; 95% CI: 0.4 – 0.7; p =0.0005). Those who agreed that VCT was their source of information were 50% less likely to be knowledgeable. Positive association was achieved where the adolescents agreed that they relied on self-decision or on peers and friends. Those who relied on self-decision were 2.6 fold more likely to express perceived knowledge (OR: 2.6; 95% CI: 1.3 – 4.9; p =0.004). Those who got information from peers or friends on the other hand were almost seven times more likely to be knowledgeable (OR: 6.6; 95% CI: 3.1 – 13.9; p <0.0001). Such sources like siblings, parents or teachers were not significantly associated with perceived confirmed knowledgeable.

Table 4.10 Association between Sources of Information about SRH and Knowledge on Sexual and Reproductive Health among Adolescents

Risk factor	Perceived Knowledge about SRH		Overall OR	95% CI	P value
	Knowledgeable	Not knowledgeable			
	n=441	n=159			
VCT:					
Agree	66.7	33.3	0.5	0.4 – 0.7	**0.0005**
Disagree	79.3	20.7			
Self-decision:					
Agree	74.9	25.1	2.6	1.3 – 4.9	**0.004**
Disagree	53.8	46.2			
Peer and friends:					
Agree	76.0	24.0	6.6	3.1 – 13.9	**<0.0001**
Disagree	32.4	67.6			
Siblings:					
Agree	73.3	26.7	0.9	0.5 – 1.5	0.7
Disagree	75.0	25.0			
Parents:					
Agree	76.1	23.9	1.2	0.6 – 2.1	0.6
Disagree	73.2	26.8			
Teachers:					
Agree	74.1	25.9	1.0	0.6 - .7	0.9
Disagree	73.4	26.7			

4.13 Association between Factors Affecting Parent-adolescent Communication and Knowledge on Sexual and Reproductive Health among Adolescents.

Table 4.11 below on Odds Ratio analysis of association between factors affecting parent adolescent communication, only two factors considered as factors affecting parent-adolescent communication about SRH matters were significantly associated with perceived knowledgeable about SRH. Those whose parents feared discussing SRH issues were 80% less likely to express being knowledgeable (OR: 0.2; 95% CI: 0.1 – 08; p =0.01). Similarly, those stating that cultural norms was a factor affecting parent-adolescent communication about SRH matters 90% less likely to be knowledgeable (OR: 0.1; 95% CI: 0.01 – 0.82; p =0.009). Parents being considered as not being aware, religious beliefs, beliefs that it would initiate sex nor adolescent's view that the parents were busy were not statistically significantly associated with perceived level of knowledge.

Table 4.11 Association between Factors Affecting Parent-adolescent Communication and Knowledge on Sexual& Reproductive Health among Adolescents

Risk factor	Perceived Knowledge about SRH		Overall OR	95% CI	P value
	Knowledgeable n=441	Not knowledgeable n=159			
Parents not aware:					
Agree	72.6	27.4	0.8	0.5 – 1.3	0.3
Disagree	77.2	22.8			
Fear of discussing:					
Agree	72.3	27.7	0.2	0.1 – 0.8	**0.01**
Disagree	91.7	8.3			
Cultural norms:					
Agree	72.5	27.5	0.1	0.01 – 0.82	**0.009**
Disagree	96.0	4.0			
Religious beliefs:					
Agree	74.7	25.2	1.6	0.99 – 2.85	0.5
Disagree	63.8	36.2			
Belief that it would initiate sex:					
Agree	73.7	26.2	1.1	0.6 – 1.9	0.7
Disagree	71.6	28.4			
Parents too busy:					
Agree	72.9	27.1	0.7	0.4 – 1.4	0.3
Disagree	79.3	20.7			

4.14 Logistic Regression on Factors Associated with Adolescent Knowledge on Sexual and Reproductive Health

From the analysis of logistic regression in Table 4.12 below, indicated that all the risk factors that were significantly associated with perceived knowledge about SRH issues were included in a logistic regression model to establish determinants of adolescents' perceived knowledge about SRH. All the risk factors were retained in the model except gender and cultural norms. Thus factors with positive outcomes on perceived knowledge of adolescents regarding SRH matters included mother with no education or having attained primary education knowledgeable (OR: 1.9; 95% CI: 1.2 – 3.1; p =0.005), relying on self-decision by the adolescent knowledgeable (OR: 5.6; 95% CI: 2.5 – 12.7; p <0.0001) or relying on peers and friends knowledgeable (OR: 16.9; 95% CI: 7.0 – 40.6; p <0.0001). Factors with negative association included age group of less than 18 years (OR: 0.6; 95% CI: 0.4 – 0.9; p=0.03), being a Teso (OR: 0.4; 95% CI: 0.2 – 0.7; p=0.003), living in rural setting (OR: 0.5; 95% CI: 0.3 – 0.7; p=0.002), father having no education of having attained primary education (OR: 0.5; 95% CI: 0.3 – 0.8; p=0.002), source of information being from VCT (OR: 0.3; 95% CI: 0.2 – 0.4; p<0.0001) or fear discussing SRH issues (OR: 0.2; 95% CI: 0.02 – 0.99; p=0.05).

Table 4.12 Logistic Regression on Factors Associated with Adolescent Knowledge on Sexual & Reproductive Health

Risk factors	Overall OR	95% CI	P value
Age >= 18 years	0.6	0.4 – 0.9	**0.03**
Male	0.6	0.4 – 1.0	0.07
Of Teso ethnicity	0.4	0.2 – 0.7	**0.003**
Rural residence	0.5	0.3 – 0.7	**0.002**
Father with no or primary level education	0.5	0.3 – 0.8	**0.002**
Mother with no or primary level education	1.9	1.2 – 3.1	**0.005**
Source of information on SRH obtained from VCT	0.3	0.2 – 0.4	**<0.0001**
Source of information on SRH as self-decision	5.6	2.5 – 12.7	**<0.0001**
Source of information on SRH from peers and friends	16.9	7.0 – 40.6	**<0.0001**

4.15 Qualitative Data Analysis

Analysis and interpretation of qualitative data was done in themes. The outline of the theme is as follows: a) communication between parents and adolescents. b) Sources of information about SRH for adolescents. c) Mode of communicating SRH information. d) Strategies to improve adolescent parent communication on SRH issues.

Communication between parents and adolescents

The predominant view among parents in the study was that communicating with adolescents was deficient generally, they perceived adolescents to be innocent and they do not need any information on SRH and the parents felt like giving any SRH information to the adolescents is introducing to sexual life early and that will not make

them concentrate on their studies. Parents also felt like the communication on SRH is done by special people who are designated for that work

> *"because If you start talking to them on SRH issues early they will start engaging in sexual activities, why start making trouble when trouble has not been identified, once they have the information on SRH then they experiment the information in their daily lives and hence start messing up* said (FGD of female parent)

> *I need to be trained in SRH issues before talking with them as the topic of SRH issues is be able to begin discussing with the adolescents* (FGD of male).*so wide, sensitive and it requires one to have knowledge on the subject to.*

According to school Principals, parents hardly discuss SRH with their adolescents. The concerns were that parents were often busy to the point of failing to turn up at school of their children when needed. Other school principals were not sure whether parents had time to communicate with their adolescents about SRH issues. One of the likely explanations was that parents fear discussing with their adolescents on SRH;

It has been observed from the way students behave, that most parents do not talk with their children on SRH issues directly, they make threatening and harsh statements, like if one gets pregnant you will not come home again (key informant principal of a girls school).

Generally, the school principals were of the opinion that it was a minority of parents who talked to their children about SRH issues even when it was culturally challenging. They concurred that culturally, fathers were not expected to discuss SRH issues with their daughters, but mothers could discuss with their sons and daughters. In addition,

they noted fathers often limited their conversations with their adolescent to academic to general behavior.

Communication parents rarely took place. Mothers found a little easier to discus SRH issues. The adolescents admitted that they find it harder to discuss SRH issues. Other adolescents said that parents talked to them during counseling sessions when invited in school because of a mistake has happened in school:

The parents do not talk to us but wait for a mistake done then they reprimand us and normally its very uncomfortable to listen to what they are talking about (FGD female student)

Other adolescents completely disagreed that there is no discussion that takes place with their parents*:*

> *'they rarely talk to us, it is very difficult for us to initiate the discussion because the parents will think we know and do those things we are asking about (FGD* male student)

Sources of information about SRH for adolescents

Both urban and rural secondary schools and for both sexes, the most frequently mentioned source of SRH in the FGDs with adolescents was from peers and friends. Other than lessons from guiding and counseling majority relied on self-decision as a source of information and there was no admission that some of the information was misleading as illustrated;

I get information on SRH through my fellow peers, social media like facebook, whats up (FGD female student).

However, some of the students stated that they benefited from school programs of guiding and counseling where they shared SRH information and they were really happy with school program:

*From school through teachers through counseling and guiding sessions (*FGD male student*).*

Other students stated that parents reprimand them when a mistake has happened and through that they got SRH information:

From parents as warnings or threats when they find us chatting with friends of opposite sex (FGD female student)

Mode of communication of SRH

The most common modes of passing SRH information to adolescents were: Counselling, teaching and conversations. This was reported more by girls than boys as illustrated;

*Through lectures and discussions, we get information about SRH through counseling and discussion with parents. The parents warn us against engaging in sexual acts with girls saying most them are sick (*FGD Male student).

Other forms of passing SRH information to adolescents elicited in this study included, threats, intimidation and abuses. This form was reported and tended to be similar for both male and female adolescents as illustrated:

We get SRH information through abuses. For example, when found by your mother that you are standing with a boy, she waits for him to go away and then starts abusing and in the process you pick something (FGD female student).

Other modes of SRH information reported by adolescents included, youth friendly newspapers, educational movies, internet and other people like teachers, health workers, siblings and counselors.

Strategies to improve parent- adolescent communication on SRH issues

Parents when asked about what they think that could be possible ways of improving parent –adolescent communication, they said that it is true they lack the necessary skills of handling the adolescents as illustrated:

If am taken for a training on SRH issues especially on the topics that am supposed to be discussing with the children, then I will have knowledge in discussion (FGD male parent).

However other parents had contrary opinion on the strategies to improve SRH communication with their adolescents;

Our children also need to be oriented on the importance of discussing SRH issues with parents age of starting discussion to be clear and which topics to discuss at what age, I mean age specific messages (FGD female parent).

Teachers for guiding and counseling to be trained in SRH issues so that they can also be used to pass the information **(FGD male parent).**

When adolescents were asked how best could SRH communication between parents and adolescents could be strengthened, they had the following to say:

Parents need to be trained or sensitized in SRH issues so that they can competently discuss with us, have open forums together with the parents, teachers and students so that we can come to a common understanding on SRH issues and be free to (FGD male student).

On the same issue of improving parent -adolescent communication, the school principals were very clear on what needs to be done and they had the following to say:

Have a consultative forum with both the parents, students and teachers to discuss SRH issues at the beginning and closing of the term (Key Informant principal of a mixed school).

Train some parents in SRH issues as facilitators to come and teach the other parents and do bench marking with the parents to places where parent adolescent communication has worked so that they learn tactics of communicating (Key Informant principal of Girls school).

CHAPTER FIVE

DISCUSSIONS OF FINDINGS

5.1 Overview

This chapter presents logical discussions of the findings as per the objectives of the study. The objectives of the study were to determine the level of knowledge perception of parents and adolescents towards sexual and reproductive health in Sirisia Sub-County, to determine the source of information for adolescent communication on sexual and reproductive health in Sirisia sub- County and to identify the factors affecting parent- adolescent communication on SRH in Sirisia Sub-County.

5.2 Knowledge perception of adolescents towards SRH in Sirisia Sub- County

The results discussed below are based on the first objective which was to determine the level of knowledge perception of parents and adolescents towards SRH in Sirisia Sub-County.

A number of patterns that can be deduced from the analysis of data gathered in the field merit some discussion, in order to shed some light on them. Hereunder, some of the more substantive issues in the study outcome are examined. One of the patterns that emerges with respect to knowledge of parents and adolescents towards sexual and reproductive health is that there are disparities in knowledge between the genders. For instance, males (42.7%) were more knowledgeable about condoms as opposed to females (27.2%) and abstinence (27.9%). The two categories of gender were equally not knowledgeable about IUCD with only 0.6% males and 1.1% of females mentioning this, see Table 4.4. This is contrary to the study done in Eastern Ethiopia by Ayelewa,

et al., (2014) which established that eight out of ten students knew contraceptive methods to prevent unwanted pregnancy.

Regarding knowledge of sexually transmitted infection it was evident that majority of the respondents (53.1% of male and 61.9% of female) were aware of HIV and AIDS while female was less aware of syphilis (8.3%) and Candidiasis (1.9%). Regarding knowledge about the effects of unprotected sex, an equal proportion of males (43.6%) and females (43%) indicated unwanted pregnancy as an effect, see Table 4.4. These findings are in line with the study done in Ethiopia by Ayelewa, *et al.,* (2014) which showed that more than three fourth of students knew about common sexual transmitted infections including the current pandemic HIV & AIDS.

With regard to issues like menstruation, it was evident that most females (54%) discussed menstruation with their parents, while the males mainly discussed about STI/HIV and AIDS (36.5%) and early marriage (36.9%), see Table 4.4. It was equally not surprising that females were less likely to talk about unwanted pregnancy (11.3%) and early marriage (11.7%). Given the stigmatization associated with these particular issues.

Both male and female respondents were relatively well knowledgeable about SRH. Hence, the pattern of males being more knowledgeable about SRH is apparent and yet, it appeared that women were equally knowledgeable on issues that directly affect them like menstruation at (54%). This was especially so because, despite the fact that there exists variation among males and females regarding knowledge on SRH, 98.9% of females confirmed that they are knowledgeable about such issues despite the fact that they discussed it less. Thus females had an additional handicap in discussing such issues but are equally knowledgeable on the same.

It is equally important to note that with regard to perceived knowledge on SRH, adolescents aged 18 years and above were two times less likely to be knowledgeable than their counterparts aged less than 18 years.

5.3 Knowledge of Parents towards SRH issues in Sirisia Sub-County

From the focused group discussions held with the parents, the most common responses showed that in Sirisia Sub- County parents are not aware that they are supposed to be discussing SRH issues with their children and they cited lack of information on SRH and lack of knowledge on the content of SRH. When parents were asked to mention the topics commonly discussed with their adolescents, majority of the parents were shy to mention and not sure of what it SRH encompasses and they confirmed that they have inadequate knowledge on SRH issues. The findings are similar to a study done in Uganda which concluded that parents in the study during focused group discussion had mentioned that they don't discuss SRH issues with their adolescents due to inadequate knowledge (Muhwezi, *et al.*, 2015).

Based on a foregoing discussion in relation to the first objective of the study which stated that determine the level of knowledge of parents and adolescents towards SRH in Sirisia Sub-County, the objective has been attained.

5.4 Sources of information for adolescent communication on sexual and reproductive health in Sirisia Sub-County

The results discussed below are based on the second objective which was to determine the source of information for adolescent communication on sexual and reproductive health.

The pattern that emerged with regard to the sources of parent-adolescent communication on SRH, which was largely from peers and friends for males at 93.7% and 95.1% for females. The other important source of communication on SRH was self-decision at 93.1% for males and 94% for females, see Table 4.6. It is significant to note that, the reliability of information greatly depends on the sources of such information, and in the event the peers and self-decision predominates such information sources, their reliability comes into question. This can be compounded with the fact that, first, there was further evident limited communication among male (16.7%) and female adolescents (5.7%) and their parents, and second, there was also limited communication between the male adolescents (19.7%), females (18.9%) and their teachers. Even among family members, siblings were more important sources of SRH communication (92.4%) for females than males (80.9%), see Table 4.6. As was reported by one principal;

> *"from the way students behave, most parents do not talk with their children on SRH issues directly, they tend to threaten adolescents with their harsh statements, especially when one falls pregnant, it is difficult for one to come home again, most parents wait until a mistake has occurred is when they talk to their children or accompany them to school to launch a complaint or seek counselling and guiding."*

One of the more disturbing findings was that the adolescents interviewed were mostly more comfortable discussing SRH matters with their friends as mentioned by males (45.4%) and females (46.8%), followed by peers of the same sex for males (39.7%) and for females (25.3%). Very few adolescents (7.2% of males and 13.7% of females) engaged their parents on such issues, see Table 4.6. As was remarked by one of the parents as follows:

"I do not have confidence to talk to an adolescent especially one of the opposite sex because, I feel it is better for such advice to come from one of the same gender & that initiating such discussion is difficult because we feel embarrassed talking about sensitive SRH issues with your daughter or son and this makes us very uncomfortable."

The above remarks are similar to a study in Ethiopia, where some mothers stated that they had little or no discussion on sensitive issues such as menses and sexual intercourse with their adolescents as it creates discomfort. They said it is inconvenient to discuss such issues in detail (Yesus, *et al.,* 2010).

The frequency of discussions with parents on such issues were equally lintier for males (ranging from once a month (14.6%), twice a year (21.5%), once a year (22.4%) and 'never' (41.3%), and once a month (14.3%), once a month (17.7%), twice a year (33.2%) to 'never' (34.3%) for females, see Table 4.7. A multi-stage study done in Tanzania that assessed communication with the parents, found communication on all topics was generally low as cited by Bastien, *et al.,* (2011). A study done in Tanzania also conforms with the current study in that, parents discussed SRH issues only when they perceived that the adolescent behavior is risky and also parents perceived as cues to being sexually active, were being found chatting with a potential sexual partner, returning home late and befriending peers of opposite sex then parents felt that communication was to be done to the adolescent but was mainly in one direction with the parents delivering the warnings and the young people expected to listen and heed the advice (Wamoyi ,*et al.,* 2014).

The males, who are the source of SRH communications, were less likely to discuss such issues. It seems therefore that men were less likely to discuss frequently issues of SRH. It could also well be that the adolescents interviewed are more comfortable with their peers and friends and particularly peers of the same sex.

It is also instructive to note that with regard to sources of information in relation to adolescent's knowledge on SRH, there was a negative correlation between VCT as a source of information about SRH & knowledge on SRH among adolescents. This can be explained by the fact that many of the adolescent interviewed relied on self-decision or on peers and friends for their information of SRH and these adolescents were more likely to be knowledgeable on such issues. It is also noteworthy to mention that sources like siblings, parents and teachers had no bearing on the knowledge of adolescents of SRH.

It also emerged that whatever the knowledge adolescents have on SRH, such knowledge is least received from reliable sources like parents and teachers. Knowledge of SRH among adolescents, it seems, is sourced mostly from friends and peers of the same sex and the findings are similar to the study findings that were done in Zimbabwe by Taffa *et al.,* (2014), which stated that adolescents reported obtaining sexual information, not from adult family members, but primarily from media and peers. The discussion in the above section shows that the second objective which stated that, to determine the source of information for adolescent communication on SRH in Sirisia Sub-County has been attained.

5.5 Factors affecting parent-adolescent communication on SRH

The results discussed below are based on the third objective which was to identify the factors affecting parent adolescent communication on SRH in Sirisia Sub-County.

This phenomenon can partly be explained by the fact that, Table 4.8, indicated that, 95% of males and 93.1% of females felt that cultural norms tend to impede their communication. Another reason for this phenomenon could be that 94% of the females and 82.7% males' adolescents are inhibited from communication by their beliefs, which is similar to systematic review of studies from Sub- Saharan Africa on parent-child communication, an in-depth interview with parents revealed that parent-child discussions about sexuality are not common in rural Nigeria where it remains a taboo to do so as cited by (Bastein, *et al.,* 2011).

One conclusion that can easily be drawn from these findings is that parent-adolescent communication on SRH is still deeply influenced by peers, friends, siblings and the belief systems of the communities interviewed, irrespective of their gender and circumstances, with the possibility that information on SRH may be compromised. These findings are in line with a study done in Ethiopia by (Ayalewa, *et al.,*2014), which concluded that, there was low communication about sexual and reproductive health issues between parents and adolescents as adolescents discussed about sexual matters more with peers than parents. Communication between adolescents and parents on SRH issues it seems was being largely affected by fear, considering the fact that those who feared discussing SRH issues were less likely to be knowledgeable on the same issues. As one parent reported:

> *"I can't talk to my children on SRH, because if u start talking to them on such issues early they will start engaging in sexual activities. Why start making trouble when trouble has not been identified, once they have the information on SRH then they start experimenting with the information & they end up messing up."*

The findings of this study are similar to one done in Harar, Ethiopia, whereby the, reasons for not discussing SRH issues between parents and adolescents were, lack of awareness (60.8%), fear of discussing (51.4%) and discussion was higher among parents who had completed some of education compared with parents who had no formal education, also housewives demonstrated 50% lower tendency to discuss SRH issues compared to government employees (Yadeta, *et al.,* 2014).

Equally, cultural norms seem to impede on both communication and adolescent's knowledge on SRH. In some communities in Kenya, the society places a premium on cultural norms and male domination. As one parent retorted:

> "*My culture can't allow me to talk to my adolescent boy since am a woman & according to Bukusu culture, it's only the men who are designated to do that during circumcision."*

Adolescent's knowledge on SRH therefore, is a function of both cultural norms that embeds fear of adults by adolescents. Indeed, as was noted, adolescents with perceived knowledge on SRH relied on their information from mothers with no education or having attained primary education or on their self –decision and friends. Other factors impeding knowledge on SRH included adolescents who are less than 18 years, adolescents of Teso ethnic extraction, adolescents with fathers with no education or had only attained primary education, and those who sourced their information from VCT, see Table 4.12.

5.6 Ethnicity and SRH communication

It is equally significant to note that adolescents of Teso ethnic were 50%less likely to be knowledgeable about SRH compared with the Bukusus and Sabaoti. It was equally significant to note that adolescents from rural areas were 50% less likely to be knowledgeable in comparison to those from urban settings.

It is definite, that ethnicity and settlement dwellings have a bearing in adolescent knowledge on SRH with negative ramifications for those adolescents of particular ethnic like Tesos living in rural settings see Table 4.9.

5.7 Education of Parents influence on Adolescents SRH communication

The fact that the levels of education of parents also seems to influence adolescent's perceived knowledge levels on SRH also comes as no surprise. As suggested from the findings, adolescents whose parents, particularly fathers had no education or had attained primary education were less likely to be knowledgeable as those whose parents had secondary or tertiary education. It is also noteworthy to mention that, those whose mothers had either no education or had reached primary level were more likely express being less knowledgeable than those with mothers who had attained secondary of tertiary education. Similar associations were attributed to adolescents living with both parents being likely more knowledgeable hat their counterparts living with single parents. This can be corroborated with the comments of one parent that:

> *"I need to be trained in SRH issues before talking with the children as the topic of SRH is wide, sensitive and requires one to be knowledgeable in order to adequately discuss with children."*

Findings from a similar study done in North West Ethiopia established that students whose mother was able to read and write were more likely to communicate SRH issues with their parents than those students whose mother was unable to read and write (Shireferaw, *et al.,* 2014). The findings of the current study are still similar to a study which was done in Nigeria and Kenya which revealed that the education level of the parents was associated with whether or not sexuality and HIV and AIDS had been discussed, with those having a higher level of education most likely to have had communication with their children (Bastein, *et al.,* 2011).

Based on a foregoing discussion in relation to the third objective of the study which stated that to identify the factors affecting parent adolescent communication on SRH in Sirisia Sub-County, the objective has been attained.

5.8 Implications of the Findings

The study findings show that parent adolescent communication on sexual reproductive health is still very low and this has serious implications on the adolescent sexuality and growth. It further signifies the failure of adolescent health policy from meeting its objectives. The school adolescent in particular are at a great risk of suffering the consequences of poor parental communication on sexual reproductive health issues such as sexually transmitted infections, HIV, AIDS, unwanted pregnancy and abortions and high levels of school dropout rate especially among females, the very problems which the adolescent Health Policy sought to reverse (GOK, 2007).

The suggestions brought forth by adolescents and parents on the need to have SRH information made accessible is vital to enhance communication. The low level of awareness of SRH issues of parents and adolescents means that there is a big gap between educational policy makers and the community which needs to be bridged by

improving on the structures of SRH information dissemination on the adolescent and indeed the whole nation.

5.9 Achievements, Strengths and Application of the Study

The study will assist secondary school stakeholders at the community level on best way to communicate with adolescents on sexual reproductive health issues. It will assist education policy makers and provide extensive knowledge about parent adolescent communication on SRH issues, besides assisting paramedics to understand sexual behavioral patterns of the adolescents in the society.

The study also provides insights on content of SRH information that need to be passed on to adolescents so that we can bring up a generation that understand themselves and can cope with challenges that come with adolescent stage.

5.10 Knowledge Gap and Weakness of the Study

The study aimed to establish parents' adolescent communication on SRH issues in public secondary schools in Sirisia Sub-County. However, the study assessed only adolescents and parent's communication on SRH issues which cannot be deemed as the overall representative of the entire youth population countrywide because they live under varying environments unlike the school set up. Since the study was cross section, cause and effect relationship could not be established. Further, the research constraints encountered during the field work necessitates further studies within the adolescent parent communication on SRH issues since some adolescents were not willing to give their views. The researcher would wish more studies to done on the following;

1. Influence of authoritarian parents on uptake of adolescent sexual reproductive health information among youths. Such research would help compare results on the global factors affecting uptake of SRH information by adolescents
2. An assessment of drug abuse on uptake of SRH information by adolescents is also necessary.

The above knowledge gaps on parent adolescent communication on SRH issues will help fill the gap that still exist that has not been adequately addressed by this current study.

The current study is not without limitations. It is important to note that the survey did not establish the effectiveness of parent adolescent communication.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1 Overview

This chapter highlights conclusions drawn based on the results and recommendations

6.2 Conclusions

Based on the findings of the study, a number of conclusions were arrived at

(i) Objective one was to determine level of knowledge perception of parents and adolescents towards sexual and reproductive health in Sirisia Sub-County. Following the analysis of the level of knowledge of parents and adolescent towards SRH communication, It is clear from the study that parent- adolescent communication is not effective in Sirisia Sub-County as a result of parents lacking adequate knowledge on SRH. The literacy levels of parents have a bearing in the level of communication between the parents and the adolescents is equally significant. Evidently perceived knowledge level was high among males than females in Family planning methods, HIV, STI, AIDs, unwanted pregnancy, menstruation, early marriage, physical change and sexual violence.

The above conclusion shows that the first objective was achieved.

(ii) Objective two aimed at determining the sources of information for adolescent communication on sexual and reproductive health in Sirisia Sub- County. The study did this by analyzing various sources of parent- adolescent communication. Whereas both parents and adolescents appear to have some knowledge on SRH issues, how the adolescents receive the information and the credibility of such information remains a concern. The limited communication between male and female adolescents and

between adolescents and their parents or teachers, and equally the limited frequency of discussions regarding SRH also remains a major concern at the sub county.

Given that there are VCT centres in the area which are mandated to provide SRH information to the general public, and that as currently constituted and operation, there seems to be negative correlation between the VCT as sources of information on SRH and the adolescents, it is clearly for a policy review to be initiated with a view to making the VCTs more adolescent friendly in order to enhance SRH knowledge among them. The advantage of adolescents receiving SRH information from credible sources like the parents or teachers are obvious: Parents and teachers have the advantage of knowledge especially on SRH matters; they are already dealing with SRH issues in one way or the other and they can share their experiences with the adolescents.

The above conclusion shows that the second objective was attained.

(iii) Objective three aimed at identifying factors affecting parent adolescent communication on sexual and reproductive health in Sirisia Sub-County. This was analyzed by looking at the demographic characteristics of the respondents; age, ethnicity, place of residence, education level of parents marital status of parents, cultural beliefs, which were found to affect parent-adolescent communication on sexual and reproductive health. The problem of parent –adolescent communication on sexual and reproductive health among secondary school students in Sirisia Sub-County remains acute. This problem derives largely from the cultural and relational challenges affecting parent –adolescent communication on SRH. It also hinges on discomfort among some adolescents, which has confined them to seek information on SRH mainly from their peers and friends. The problem requires urgent attention and nowhere better

than in the context of policy and practical solution to the way adolescents and parents relate and communicate to each other. From the foregoing, it can be concluded that, communication on SRH is still deeply embedded in the cultural milieu as evidenced by the fact that cultural beliefs still impede such communication, and also with the fact that communication on SRH among adolescents is still largely influenced by their peers, friends and siblings. Needless to say, such lateral communication on such critical issues like SRH may be miscommunicated or misconstrued by the adolescents themselves with far reaching sexual and social implications.

6.3 Recommendations

- For adolescents receiving information from their mothers there is needed to enhance knowledge and awareness of such mothers on issues of SRH. For adolescent relying on their peers and friends for such information, there is an equally urgent need to provide them with capacity building of issues of SRH so that the information they are sharing is informed by knowledge and facts on such issues. Efforts must equally be made to enhance literacy among the parents to ensure that communication between adolescents and the parents on SRH issues are improved.

- There should therefore be proper and flexible channels of communication between parents and adolescents that guarantees the credibility of information shared. Parents should be equipped with essential sexual and reproductive health information for improving their discussion skills, Peer groups should be educated on sexuality

- Sensitization to both parents and adolescents need to be done so as any of them can initiate the discussion about sexual and reproductive health issues

- A study should be done to establish when parent adolescent communication should begin.

- It is clear that for meaningful communication on issues of SRH between parents and adolescents, there should be deliberate efforts made between the parents and adolescents to bridge the cultural and generational communication barriers as identified in the study. For the category of adolescents of 16 years and below who are less likely to be knowledgeable on SRH issues especially those living in the rural areas and those of the Teso ethnic group, there is need to enhance awareness on issues of SRH through deliberate campaigns targeting remote locations which have not been reached with such crucial information. There is also need to integrate and revamp SRH education within the curriculum to enhance awareness and knowledge on such issues.

Communication on SRH issues between parents and adolescents is another issue where all stakeholders ought to combine efforts and play a more effective and reconciliatory role. First and foremost, there is need to reduce the existing fear among the adolescents in communicating with parents and teachers on SRH matters. As counties continue to develop and expand, it is anticipated that greater effort will be made to normalize the relations between adolescents and parents and teachers. While the relation between the two groups has been characterized by fear and trepidation, mostly along cultural norms. This has led to lack of access to valuable SRH information from both parents and teachers has continued to exacerbate the problem of communication between the two groups. Such impeding fears and cultural barriers ought to be addressed urgently through:

- A consultative forum involving both parents, teachers and students to discuss SRH issues at start and at the end of the term;
- Training of some parents as trainers on SRH issues in order to facilitate additional training of parents;
- Bench marking with the parents especially in places where parent adolescent communication has worked to enhance communication;
- Collaborate with ministry of health on parents orientation on how to discuss SRH issues with their children particularly when to start such discussions through school health programs
- Peer teaching on SRH issues through school health programs.

Finally, there is an urgent need to increase women's knowledge on issues of SRH. This is partly because, many of the adolescents interviewed who were perceived to have knowledge on SRH relied on from mothers with no education or had attained primary education.

There are three issues of critical importance for adolescent regarding SRH, namely, the sources of their information, the levels of education of those providing the information, the credibility of such information and how such information is communicated. Efforts should be made to ensure that communication on SRH between parents and adolescents are enhanced.

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APPENDICES

APPENDIX I: LETTER TO THE RESPONDENT

Dear Respondent,

My name is Hedwick Wasike, a Master of Science in Nursing student at Masinde Muliro University of Science and Technology. I am conducting a study on Parent-adolescent communication on sexual and reproductive health among secondary school students in Sirisia Sub-county. This is in partial fulfillment for the award of a master of science in Nursing degree. I welcome the schools with adolescents of between 14 to 19 years to participate in the study. Your participation is highly appreciated. The information obtained will help to address adolescent sexual and reproductive issues to strengthen and improve parent -adolescent communication on SRH. The questionnaire will take 10- 15 minutes to complete.

Whatever information you provide will be kept confidential and will not be shared with anyone other than members of our research team. Participation in this study is voluntary, and you have a right to withdraw any time. However, we hope that you will participate in this study since your views are very much valuable. At this point, do you have any questions about the study?

May I begin the interview now?

Signature of interviewer ……..

Date ……

APPENDIX II: CONSENT FORM

INFORMED CONSENT: PARENT-ADOLESCENT COMMUNICATTION ON SEXUAL AND REPRODUCTIIVE HEALTH AMONG SECONDARY SCHOOL STUDENTS IN SIRISIA SUBCOUNTY, KENYA

This survey is part of my Masters Research study of Parent-Adolescent communication on sexual and reproductive health among secondary school students in Sirisia Sub County, Kenya. The focus is on the sexual and reproductive communication that takes place between the parents and the adolescents, the information obtained will help to address adolescent sexual and reproductive issues to strengthen and improve parent – adolescent communication on sexual and reproductive health. You are being asked to participate because you match the profile of the participant that I am studying. Your participation is completely voluntary, and you can cease participation at any time without any consequences for yourself. In this survey, you will respond to a number of questions about yourself on sexual and reproductive health experiences. If you are uncomfortable with any of the questions being asked, you can decline to answer that question.

Your answers to these questions will be kept confidential and will not be shared with anyone other than the research team. Your name and all information that identifies you have been removed from the data.

By signing below, you acknowledge that you understand all the information given above and agree to participate in this survey.

Signature Date

APPENDIX III: QUESTIONNAIRE
Questionnaire Number……

Instructions to the Respondent

Answer all questions by ticking in the check box

Section A: Demographics

1. What is your age in years?

☐ Below 18 years

☐ Above 18 years

2. What is your sex?

☐ Male

☐ Female

3. Which form are you?

☐ Form one

☐ Form two

☐ Form three

☐ Form four

4. Which religion are you?

☐ Christian

☐ Muslim

☐ Others (specify)

5. Which ethnic group are you?

☐ Teso

☐ Sabaot

☐ Bukusu

Others (Specify)…….

6. Where do you stay?

☐ Urban

☐ Rural

7. What is your living arrangement?

☐ With both parents

☐ With father

☐ With mother

☐ With friend(s)

☐ Alone

☐ With relatives

Others (specify)_____

8. How big is your family?

☐ Less than three

☐ Four to six

☐ Greater than seven

9. What is the education status of your father?

☐ Unable to read and write

☐ Primary

☐ Secondary

☐ Tertiary

10. What is the education status of your mother?

☐ Unable to read and write

☐ Primary

☐ Secondary

☐ Tertiary

11. What occupation is your father?

☐ Employed by government

☐ Employed private

☐ Farmer

Others (Specify)_____

12. What occupation is your mother?

☐ House wife

☐ Employed by government

☐ Farmer

Others (Specify)_____

Section B: Knowledge About Sexual and Reproductive Health

13. What are the methods of family planning?

_____

_____

_____

_____

_____

_____

_____

14. What are the types of sexually transmitted infections?

_____

_____

_____

_____

_____

15. What are the consequences of unprotected sex?

☐ STD/STI/HIV

☐ Unwanted pregnancy

☐ Unsafe abortion

Others (Specify)

_____

16. Which of the above components do you commonly discuss with your parents?

A

B

C

D

17. Indicate your level of knowledge on some of the stated components of sexual reproductive health?

Component	**Knowledgeable**	**Not Knowledgeable**
Family planning methods		
STI/STD/HIV/AIDS		
Unwanted pregnancy		
Menstruation		
Early marriage		
Physical change		
Sexual violence		

Section C: Sources of Parent-adolescent Communication

18. Indicate your level of agreement with the below stated sources of information on sexual and reproductive?

Source	**Strongly agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
Voluntary Counselling Centers (VCT)					
Self-decision					
Peers and friends					
Siblings					
Parents					
Teachers					

19.To what extent do you agree that parents are the main source of SRH information

A Strongly agree

B Somewhat agree

C Neutral

D Somewhat disagree

E Strongly disagree

Section D: Factors Affecting Parent –adolescent Communication

19. Which people are you comfortable to discuss with SRH issues?

☐ Father

☐ Mother

☐ Friends

☐ Peers of same sex

Others (Specify)_____

20. How often do you discuss these components with your parents?

☐ Once a month

☐ Twice a year

☐ Once a year

☐ Never

Others (Specify)_____

21. Rate your level of agreement with the following factors affecting parent-adolescent communication?

Reason	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
Parents not aware					
Fear of discussing					
Cultural norms					
Religious beliefs					
Belief that it would initiate sex					
Parents too busy					

APPENDIX IV: INTERVIEW GUIDE FOR STUDENTS

Questions in students FGD

1. What do you know about SRH?
2. How do you access information about SRH?
3. What roles do you think parents should play in adolescents' SRH?
4. Do your parents ever talk to you about SRH issues? (probe: at what age; who starts the conversation; comfort)
5. For those who discuss with their parents, what topics do you discuss with your parents (probe; to find out most common)
6. For those who do not discuss with their parents about SRH, what could be the reasons for not discussing?
7. What would you wish to hear or see (content) from your parents about SRH discussions?
8. How are these messages passed on? (as warnings, threats, lecture discussions)
9. Do you get satisfied / more knowledgeable after these discussions? Why or why not?
10. What are the challenges you face in discussing SRH issues?
11. What ways would you suggest to improve discussions on SRH with your parents?

Adapted from(Muhwezi, *et al.*, 2015)

APPENDIX V: KEY INFORMANT GUIDE FOR TEACHERS

Questions for School Teachers

1. Does this school offer sex education classes? Probe to which classes, how often, what time, length of session and are teachers given prior training
2. What topics are covered under this?
3. What process is followed during these classes? (is the teacher giving information; other staff; how to students participate)
4. What methods do you use to encourage / ensure participation of parents in school activities? (probe: success of these methods)
5. What is your opinion on parents discussing SRH issues with their adolescent children (probe: especially the 14-19 years old)
6. What strategies do you think will be suitable to involve parents in discussing sexual and reproductive health issues with their children?
7. Are there any other comments you wish to make or questions wish to ask on the topic discussed?

APPENDIX VI: INTERVIEW GUIDE FOR PARENTS

Interview guide for parents FGD

Questions in parents FGD

1. What do you know about sexual and reproductive health?
2. What do you think about parents discussing SRH issues with their adolescent children?
3. Do you talk to your adolescent children about SRH issues? Why or why not? (probe to find out if they talk to only one sex or both, the age at which talks begin and how often)
4. For those who discuss SRH issues with their adolescents, what topics do you discuss with them (which topics do you consider a priority)
5. How are this conversation held? (who stars it- parent or adolescent and where)
6. What challenges do you face in talking to your adolescent children about sex & reproductive health? (probe challenges talking to adolescent of different sex).
7. What will make it easier for parents to discuss SRH issues with their adolescents.
8. What information would you wish them too receive at school? (probe: from whom).
9. How can parents be encouraged to participate in school programmes on SRH issues?
10. Do you have any other comments or questions to ask on the topic discussed?

APPENDIX VII: APPROVAL FROM SCHOOL OF GRADUATE STUDIES

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

Tel: 056-30870
Fax: 056-30153
E-mail: deansgs@mmust.ac.ke
Website: www.mmust.ac.ke

P.O Box 190
Kakamega – 50100
Kenya

Office of the Dean (School of Graduate Studies)

Ref: MMU/COR: 509079

Date: 7th March 2016

Hedwick N. Wasike
HNR/G/03/14
P.O. Box 190-50100
KAKAMEGA

Dear Ms. Wasike,

RE: APPROVAL OF PROPOSAL

Following communication from the Departmental Graduate Studies Committee and the Faculty Graduate Studies Committee, I am pleased to inform you that the Board of the School of Graduate Studies meeting held on 25th February 2016 considered and approved your Masters proposal entitled: '***Parent – Adolescent Communiction on Secual and Reproductive Health Among Secondary School Students in Sirisia Sub-County, Kenya***" and appointed the following as supervisors:

1. Prof. Peter Odera - Department of Educational Psychology – MMUST
2. Dr. Mary Kipmerewo - Department of Reproductive Health, Midwifery & Child Health - MMUST

You are required to submit through your supervisor(s) progress reports every three months to the Dean SGS. Such reports should be copied to the following: Chairman, School of Nursing and Midwifery Graduate Studies Committee and Chairman, Clinical Nursing and Health Management. Kindly adhere to research ethics consideration in conducting research.

It is the policy and regulations of the University that you observe a deadline of two years from the date of registration to complete your Masters thesis. Do not hesitate to consult this office in case of any problem encountered in the course of your work.

We wish you the best in your research and hope the study will make original contribution to knowledge.

Yours Sincerely,

PROF. HENRY KEMONI
EXECUTIVE DEAN, SCHOOL OF GRADUATE STUDIES

APPENDIX VIII: APPROVAL FROM INSTITUTIONAL ETHICS REVIEW COMMITTEE

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY

Tel: 056-31375
Fax: 056-30153
E-mail: rel@mmust.ac.ke
Website: www.mmust.ac.ke

P. O. Box 190
Kakamega
50100
Kenya

Institutional Ethics Review Committee (IERC)

MMU/COR: 403009(18) 30th March, 2016

Hedwick N. Wasike
Registration No. HNR/G/03/14
Masinde Muliro University of Science and Technology
P. O. Box 190-50100
KAKAMEGA

Dear Wasike,

RE: Ethical Approval to Conduct Research

The IERC received your proposal titled *"Parent-Adolescent Communication on Sexual and Reproductive Health among Secondary School Students in Sirisia Sub-County, Kenya"* for review. Having reviewed your work, the committee has given ethical clearance for you to conduct research as proposed.

On behalf of IERC and the University Senate, my congratulations. We wish you success in your research endeavour.

Yours faithfully

Prof. F.K. Matanga
Chairman, Institutional Ethics Review Committee

Copy to:

- The Secretary, National Bio-Ethics Committee
- Vice Chancellor
- DVC (PR&I)
- DVC (A & F)
- DVC (A&SA)

APPENDIX IX: RESEARCH PERMIT

THIS IS TO CERTIFY THAT:
MISS. HEDWICK NANYAMA WASIKE
of MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY, 0-50100 kakamega,has been permitted to conduct research in *Bungoma County*

on the topic: *PARENT-ADOLESCENT COMMUNICATION ON SEXUAL AND REPRODUCTIVE HEALTH AMONG SECONDARY SCHOOL STUDENTS IN SIRISIA SUB-COUNTY, KENYA*

for the period ending:
13th June,2017

.....
Applicant's Signature

Permit No : NACOSTI/P/16/15610/11194
Date Of Issue : 16th June,2016
Fee Recieved :ksh 1000

.....
Director General
National Commission for Science, Technology & Innovation

CONDITIONS

1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit
2. Government Officers will not be interviewed without prior appointment.
3. No questionnaire will be used unless it has been approved.
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
5. You are required to submit at least two(2) hard copies and one(1) soft copy of your final report.
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice

REPUBLIC OF KENYA

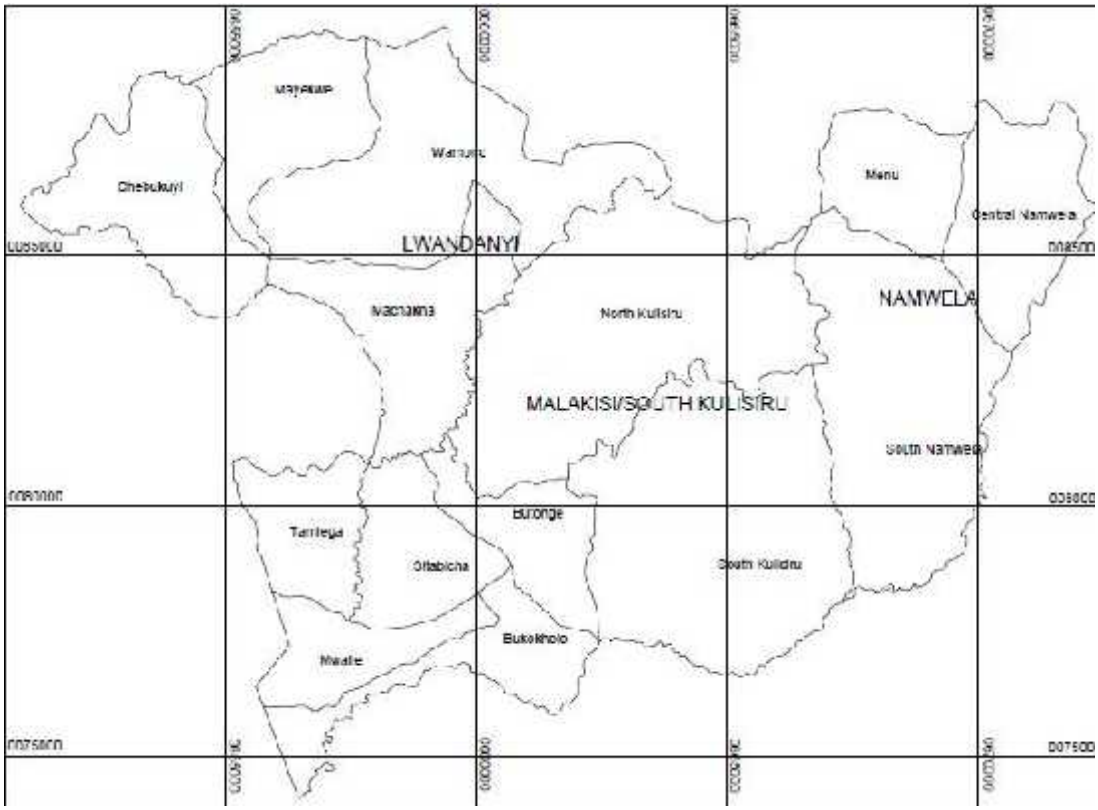
National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

Serial No. A 9587

CONDITIONS: see back page

APPENDIX X: MAP OF THE STUDY AREA



Source: (Physical Planning Office, Bungoma County 2015)