

ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES

SOME FACTORS THAT INFLUENCE
ATTITUDE TOWARDS SEX
EDUCATION AMONG HIGH
SCHOOL FEMALE STUDENTS
IN SOUTH WOLLO

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MAY, 2000

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A Thesis
Submitted to the
School of Graduate Studies
Addis Ababa University

In Partial Fulfillment of the Requirements
For the Degree of Master of Arts
In Educational Psychology

By
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May, 2000

ABSTRACT

The present study examined the role of selected background and psychological variables, namely, religion, age, grade level, attitude of parents towards sex education, and source of information as predictors of the attitude of female students towards sex education. Data pertaining to the above variables were obtained from 296 subjects (148 female students and 148 mothers) in the Amhara region (South Wollo Zone). The background information were collected using a questionnaires, and psychological variables were assessed by employing scales. Analysis involving multiple regression and partial correlation suggested that the age and grade level of female students do not independently contribute to the variation in attitude towards sex education. However, attitude of parents, source of information, and religion were found to be the most powerful predictors of the attitude to female students towards sex education. Like wise, educational level of parents, knowledge and discussion on contraception and sex education were found to be strong predictors of attitude of female students.

Finally the importance of the result, particularly in relation to the influence of background and psychological variables in determining the attitude of female students towards sex education, and implications of the findings are discussed.

ACKNOWLEDGEMENT

I am most grateful to my thesis advisor Dr. Habtegiorgis Berhane who has given his precious time to help me in writing this thesis with out showing any sign of negligence from the time he was asked to take this responsibility. Particularly the constructive comments and criticism that have been given by reading critically all the chapters and making them ready for me to make all the necessary improvement in time are the best qualities in my advisor's personality that I always appreciate.

I am also significantly indebted to Dr. Mekonnen Yimer for his generous statistical advice that contributed directly to this research problem.

Many thanks go to Mr. Hussien Eshetu who devoted much of his time and helped me in analyzing the data and provided me with invaluable advice on the draft work.

I also want to express my gratitude to Mr. Gurbiaw Bogale who gave me the access to use his computer whenever I needed.

TABLE OF CONTENT

	Page
ABSTRACT	I
ACKNOWLEDGMENT	II
LIST OF TABLES	VII
LIST OF ABBREVIATIONS	X
CHAPTER ONE	
INTRODUCTION	
1.1 Background of the problem	1
1.2 Statement of the problem	4
1.3 Objective of the study	6
1.4 Significance of the study	6
1.5 Scope of the study	7
1.6 Definition of key terms	8
CHAPTER TWO	
REVIEW OF RELATED LITERATURE	
2.1 Knowledge and Practice of Sex Education	9
2.2 Attitudes of Females towards Sex Related Issues	12
2.2.1 Attitudes of Females towards Contraception	12
2.2.2 Attitudes of Females towards Sexuality	14

2.3 Factors that Influence Sex Education	15
2.3.1 Attitudes of Parents towards Sex Education	15
2.3.2 Religion	19
2.3.3 Level of Education	23
2.3.4 Age	26
2.3.5 Access to Family Planning Service and mass media	28

CHAPTER THREE

DESIGN OF THE STUDY

3.1 Subjects	33
Sampling Procedure	33
3.1.1 Training of Assistance	34
3.2 Variables Included in the Study	34
3.2.1 Independent Variables	35
3.2.2 Dependent Variables	35
3.3 Data Gathering Instruments	35
3.3.1 Background Information of the Questionnaires	35
3.3.1.1 Measure of Background Information	35
3.3.1.2 Scales	37
3.4 Data Collection	39
3.5 Method of Data Analysis	40

CHAPTER FOUR

RESULTS OF THE STUDY

4.1 Interrelation Among Background Information, Psychological Variables, and Attitude of Female Students towards Sex Education	42
4.2 Independent Predictors of Attitudes of Female Students towards Sex Education	44

CHAPTER FIVE

DISCUSSION

5.1 Attitude of Parents as Predictor of the Attitude of Female Students towards Sex Education	57
5.2 Grade Level of Female Students as Predictor of Attitude towards Sex Education	58
5.3 Religion as Predictor of Attitude Towards Sex Education	60
5.4 The Effect of Educational Level of Parents on the Attitude Female Students towards Sex Education	61
5.5 Age as Predictor of Attitude towards Sex Education	62
5.6 Sources of Information as Predictor of Attitude towards Sex Education	63

CHAPTER SIX

SUMMARY AND CONCLUSION

66

REFERENCES

70

APPENDIX

LIST OF TABLES

	Page
Table 1. Inter-correlation among background Information, Psychological Factors and Attitude of Female Students towards Sex Education.	43
Table 2. Results of regression beta weights and multiple correlation coefficients.	44
Table 3. Partial correlation coefficient associated with the relationship between religion and attitude of female students.	45
Table 4. Partial correlation coefficient between age and attitude of female students.	46
Table 5. Partial correlation coefficients between grade level and attitude of female students.	47
Table 6.1 Partial correlation coefficients between the attitude of parents and attitude of female students.	47

Table 6.2	The relationship between the extent of discussion on contraception and attitude of female students.	48
Table 6.2.1	Post-hoc comparisons for the mean difference in the extent of discussion on contraception and attitude of female students.	48
Table 6.3	The relationship between the extent of discussion on sex education and attitude of female students.	49
Table 6.3.1	Post-hoc comparisons for the mean difference in the extent of discussion on sex education.	49
Table 6.4	The interrelation between the attitude of female students towards sex education and the attitude of their mothers as rated by the daughter.	50
Table 6.4.1	Post-hoc comparisons for the mean difference in the attitude of students' on the basis of their mother attitude.	51
Table 7.1	Partial correlation coefficients between sources of information and attitude of female students.	52

Table 7.2	The interrelation between the source of information (FGAE, Mass Media and School) and attitude of female students towards sex education.	52
Table 7.3	The relationship between knowledge of contraception and attitude of female students.	53
Table 7.3.1	Post-hoc comparisons for the mean difference in the knowledge of contraception.	53
Table 8.1	The correlation between the educational level of female students' mother and attitude of female students.	54
Table 8.2	Post-hoc comparisons for the mean difference in the level of education.	55

LIST OF ABBREVIATIONS

CPR	Contraceptive Prevalence
FGAE	Family Guidance Association of Ethiopia
KAP	Knowledge, Attitude and Practice
UN	United Nations
WFS	World Fertility Survey

CHAPTER ONE

1. INTRODUCTION

1.1 Background of the Problem

Nowadays more researchers concentrate on two main issues: the teaching of sex education and sexual harassment of girls in school. Much of the analysis of the studies focus on the ways that schools teach sex education, suggesting that this offers insights into the way they deal with sexuality in general (Measor, 1984). The most Common pattern is that schools teach the biological facts of reproduction and contraception, and include material about sexually transmitted disease (Measor and Sikes, 1992). In the current situation schools have to undertake AIDS education that introduces new pressures and themes. Schools provide knowledge about the mechanics of sex and the process of reproduction.

In our society, because of culture, educational background and technological development, the psychological problem of females is disguised (FGAE, 1975). Many investigators in different centers observed different psychosocial problems of females. One of the most important psychosocial problem centers is the school, specifically high school. Female students in high

schools, who are mainly in their adolescence, face both physical and psychological changes. Among the physical changes some of them are breast development, enlargement of external genitalia, menstruation, additional hairs, bodily odor, enlargement of pelvis, and widening of hips. Among the psychological changes: development of interest in opposite sex, the need for independence both personally and economically and marital changes are the most critical changes which lead them to the psycho-social problem.

Some of the psycho-social problems which are common to high school female students include unwanted or early pregnancy, birth complications, illegal abortions which come as result of lack of parental supervision and authoritarian and forced early marriage (Yusuf, 1998).

In many schools, young females are marrying early. As a result of this, they are going to have more problems than they would have if they waited until they were older (Landis, 1956). According to Landis's 1956 report, the drop out rate was high among the girls who had married. From research it was found that 83% of the junior girls and 73.9% of senior girls who were married, 48.2% had dropped out of school during the school year (Landis, 1956).

It was also found that many high school female students are suffering from psycho-social problems due to the influence of culture and lack of proper awareness of sex education. A great many students still complain that as

children they found their parents unapproachable on such matter, that where sex was mentioned in the home it was colored as evil, as sinful, and that instructions, when they were given, were too vague and full of mystery to do much good (Bardis, 1963). Consequently many of these students relate experiences of surprise, worry, or disgust at the first menstruation, or nocturnal emission, or in first learning of intercourse. Religious beliefs also seem to play some roles in the rejection of sex education and family limitation. As Molnes (1968) mentioned in his finding, most of the religious people believe that “for every mouth God provides a pair of hands” “conception and child bearing are in God’s hand”. From the above stated belief one can understand that religion is one of the most important factors in determining the proper awareness of students about sex and family life education.

Studies on socio-economic differentials in sex education have brought out the fact that sex knowledge is highly correlated with societal perception, religion and marital status. But it is theoretically untenable to believe that these background variables directly affect sex knowledge and birth control attitude, rather it can be said that the background variables are linked with sex knowledge through certain intervening factors.

1.2 Statement of the problem

The shocking amount of immorality or sex delinquency among young people of our day has led to much discussions of the subject of sex education.

The psychosocial problems of our high school female students are not much different from the experiences of other developing countries. Female students in our country are suffering from unwanted pregnancy, early marriage, illegal abortion, etc., which come as a result of cultural influence.

The introduction of sex and family life education in the school is very low. Female students are not more aware of how to use, when to use and where to find contraception (Bogue ,1970).

Awareness about what family planning is (and is not), where and who can find out more about it, how one can obtain birth control supplies, what the different birth control methods are and how they are used are the most important issues that should be considered (Zawacki 1971).

In our schools, female students are not the beneficiaries of the Family Guidance Association services. In most cases this could be due to the attitude of parents towards female students and the influence of their culture that they are strictly following. Thus, these national and academic issues initiate the writer to carry

out psychological research in this field, in one selected zone, in the Amhara region.

Although a few studies dwelling on some aspects of sex education have been undertaken in Ethiopia, it seems that no attempt has been made so far to investigate the impact of psychological variables on this phenomenon. Keeping this point in mind, the present study analyzes the role of certain psychological and cultural variables in sex education.

This study, as its major objective, focuses on providing appropriate insights and useful information about the factors that influence the attitude of female students towards sex education. Specifically, the study attempts to answer the following basic questions.

1. To what extent does the attitude of parents affect the attitude of female students towards sex education?
2. Is there a significant difference between grade levels of female students in accepting sex education?
3. To what extent does religion affect sex education in high school?
4. Does the educational level of parents influence the attitude of their children towards sex education?

5. To what extent does the age of students affect their attitude towards sex education?
6. To what extent does the information obtained from FGAE and mass media affect the attitude of female students towards sex education?

1.3 Objective of the study

More specifically, the objectives of this study are:

1. To identify the influence of religion on sex education
2. To identify the major factors that determine high school female students in using contraceptive method.
3. To identify perception of mothers on sex education.
4. To check the relation between grade level and attitude of sex education.
5. To check the influence of sex related information on the attitude of female students towards sex education.
6. To suggest possible solution to the problem.

1.4 Significance of the Study

It can be easily understood that the attitude of female students towards sex education is a crucial issue for all of us.

Many educators and psychologists are giving more attention on how such a problem can be minimized.

Hence, it is essential to assess the influence of different factors on the attitude of sex education among high school female students to find the extent to which the problem is widening over the school.

In general, the finding of this study might help to:

1. Determine whether high school female students are under the influence of religion or not in relation to sex education.
2. Show the influence of parents towards the attitudes of sex education
3. Show whom, how, where and through what sex education is disseminated

Moreover, the findings of the study will help interested individuals to conduct further research in the area.

1.5 _Scope of the Study

Research on sex education requires a wide scale study on different groups, levels and areas of the country. But in order the study to be more manageable, its scope is delimited to one high school of South Wollo zone where the experience of Family Guidance Association of Ethiopia is allocated, i.e., in Dessie

1.6 Definition of Key Terms

Abortion: the termination of pregnancy before alive baby is born (Zawacki, 1971).

Adolescence: Period of life between childhood and man /woman hood (Kundu and Tutoo, 1984).

Adultery: Sexual intercourse between a married person and a person (married or not) other than his or her partner (Maas, 1995).

Contraceptive: ways of keeping a female from getting pregnant (Zawacki, 1971)

Fornication: Sexual intercourse between people not married or not married to each other (Maas, 1995)

Psychosocial problem: Suffering from emotional and social adjustment (Kundu and Tutoo, 1984).

Religion: It refers to an institution with a recognized body of communicants who gather together regularly for worship, and accept a set of doctrines offering some means of relating the individual to what is taken to be the ultimate nature of reality (Reese, 1996).

Sex education: Exchange of information about human sexual behavior (Reynolds, 1987).

CHAPTER TWO

1. REVIEW OF RELATED LITERATURE

2.1 Knowledge and Practice of Sex Education

Sex education is a convenient headline for any educational plans, which aim to help young persons understand and appreciate the normal human relations between sexes including biological or physical, psychological or mental, and social relations (Schmiedeler, 1946). Cuber and Ray (1946) indicated that sex education is a proper field of public school education simply because sex is an aspect of normal life. According to Measor and Sikes (1992) the most common pattern is that schools teach the biological facts of reproduction and contraception, and include material about sexually transmitted diseases. Of course, as Schmiedeler (1946) stated it, in high schools there is no “sex courses” by special teachers. But there should be well planned programs in which instruction concerning normal human sex relations is integrated in harmony with the fact that sex is an integral and not an isolated function and influence in

normal living. In addition to planned integrated studies, there are many opportunities for incidental sex instruction and guidance in home and school and church.

The purpose of sex education should be to facilitate the best possible integration between the physical and emotional and mental aspects of the personality and the best possible integration between the individual and the groups in which she must function. Further more, the approach to sex education, as an early preparation for marriage, should be positive, and should imply that sex in itself is beautiful, a gift from God where by male and female cooperate with Him in the mystifying, beautiful work of creation (Odenwald, 1953).

In a school, there was a fresh, hearty, open- air approach to human sexuality, the human body and reproduction. However, from different research observation of the pupils, it seemed that the world of adolescent sexuality was rather different, and the sex education failed to take their different needs and culture into account. For example in a research done by Genet (1998) in Addis Ababa High schools, about 81% of the teacher respondents indicated that their schools give neither sex education nor counseling services. Measor (1984) also stated that school sex education does not frame itself around the realities of adolescent sexuality.

Many researchers believe that lack of sex education exposed many youngsters to different problems. For example Cuber and Ray (1946) revealed that some limited amount of juvenile delinquency problems might be due to sex ignorance. In an investigation of high school students' problem, most of the students stated lack of sex education as their chief problem at their stage of life. Burchinal (1960) also reported that the majority of the unmarried girls in the sample felt their sexual knowledge was inadequate. In general in this study it was concluded that the majority of girls from whom data were obtained probably did not receive intensive sexual instruction from their parents. Similarly Robert and Harper (1957) found that high school students are not getting the quantity or the quality of sex education they require. Bayer and Ivannye (1964) also supported this finding in their study at Florida high school.

Wortis (1940) indicated that in our present day culture, sex could not be properly studied or adequately discussed unless one bears in mind the aforementioned concept of family formation as the culmination of sexual satisfaction. According to Wortis', observation, some may successfully achieve a complete family and marital sexual adjustment. Some may have to be satisfied with periodically incomplete sexual episodes and a very few may have to steel themselves to a whole life of continence with the capacity to subordinate or divert the sexual drive into other avenues of useful and joyfull activity. Finally

the author concluded that it is important to stress that sex is only one of the many problems involved in the effort of the individual to achieve a harmonious social life.

2.2 Attitudes of Females towards Sex Related Issues

2.2.1 Attitudes of females towards contraception

In spite of the efforts that have been made to introduce and promote modern contraceptive to the people in Ethiopia, the contraceptive prevalence rate (CPR) appears to be very low. For instance, compared to some statistical figures from some African countries, (23.2% in Kenya in 1989 and 32.2% in Zimbabwe in 1988) the contraceptive prevalence rate (CPR) in Ethiopia is very low, i.e., 7.5% in 1990 (Central Statistical Authority, 1993).

Zelalem (1996) pointed out from a number of research reports, that the socio-demographic and cultural factors (such as religion, age, occupation, education, ethnicity and the like) play dominant role in influencing the contraceptive attitudes of potential users, a number of empirical studies in developing countries indicated the social psychological factors (such as knowledge on varieties of modern contraceptives, informal communication on family planning matters, perceived stance of significant others on family

planning and the like) are also important factors affecting the valence and intensity of contraceptive attitude. As to the Ethiopian case, knowledge on variety of modern contraceptives is the prominent social-psychological factor related to the level of acceptance of contraception (Husien, 1992). In a study of the attitudes of Sudanese men towards family planning, it was found that knowledge on varieties of modern contraceptives and the strength of the misconceptions about modern contraceptives were significantly associated with the level of acceptance of modern contraceptives (Bertrand, 1978).

As Holsinger and Kasarda cited by Alemseged (1989), by way of establishing an indirect relationship between educational level of women on the one hand and fertility level on the other, such social-psychological factor is an intervening variable bearing influence on the level of contraceptive adoption.

From Zelalem's (1996) study on "social-psychological factors associated with contraceptive attitudes", it was found that oral pill is the most popular method of contraception with 100% of the respondents knowing it. IUD with 80.6%, Tubal Ligation with 64.6% and injectables with 14.8%. In this study the results indicated that knowledge of the varieties of modern contraceptives has a negative relationship with women's attitude toward contraception.

From Lynne's (1988) finding, it was indicated that possibly as many as 60.7% of the non-users of contraception were not in need of this modern method. In the

study, the use of pill, IUD and condoms were significantly associated with age and level of education among the samples. According to Bruhns (1996), attitude towards condoms are even more negative than towards 'female contraceptives' despite the fact that using condoms is the only method that can prevent sexually transmitted diseases and AIDS.

The vicious circle of gender stereotypes and oppressive relationships together with negative attitudes towards contraceptives are major causes for the high incidence of teen-age pregnancy (Bruhns, 1996).

2.2. 2 Attitudes of females towards sexuality

As Common and Long (1971) cited by Smith et al. (1980) observed although the rate of premarital intercourse for both male and female has increased, many researches indicate that males have more permissive attitudes and behavior regarding sexual activity than females. On the other hand, studies concerning rate of attitudes have consistently shown females to be more permissive than male in their attitudes toward the rights of females in society (Lunneborg, 1974). In a survey of students at ten Leningrad colleges in 1965, 45% of the respondents approved attitude to pre-marital sex, 33% took a neutral position (uncertain) and 22% were against it (Golod, 1993). According to this survey the

bulk of students were, therefore, for premarital sex, while only one in five subscribed to the traditional view.

Some young people who have heard scare stories about sex from their peers do all they can to avoid it, frightened or disgracing themselves in a woman's eye (Golod, 1993).

In Islamic teaching, sex education is thought of as a phase of character development, but it has generally been neglected in favor of other factors in human development (Burke, 1970).

In a school the girls had fewer questions, and in strong contrast to the boys, had no questions concerning their own sex organs, none about masturbation among girls, and few about the meaning of slang terms (Calderwood, 1963).

2. 3 Factors that influence sex education

2.3.1 Attitudes of parents towards sex education

Educators believe that parents of teen-agers provide their children with proper sexual information and counseling. However, recent research based on reported areas of sexual knowledge doubt this assumption (Burchinal, 1960). Moreover, when parents need to teach about sex as a value and the place of sex in interpersonal relationships they do much less satisfactory (Kirkendall, 1960).

Most parents revealed that they do not let their daughters go to public libraries, museums and theaters (Genet, 1998) where most information about sex education is available

According to Genet (1998), parents believe that such activities are not good for their daughters. Some of the parents think that such activities could spoil their daughters. From Burchinnal's (1960) findings, it was indicated that almost three-fourths of the girls reported that they had never expressed any sexual curiosity to their fathers. Only 14% of the girls reported that their fathers gave them a frank reply and encouraged further questions when the girls asked about sex. It was also found that one-fifth of the girls had never shown any sexual curiosity to their mothers. But on the hygiene side, mothers were cited as the model source of information for three levels of sexual knowledge, menstruation, first sexual knowledge, and most sexual knowledge as compared to fathers (Burchinal, 1960).

An example of how implanting of the wrong attitudes towards sex and how lack of proper sex instruction can lead to great harm is shown in the case of a mother who complained of her twenty-year old daughter because, in contrast with other young woman, she was apparently unable to secure "dates" with boy friends (Odenwald, 1953). According to Odenwald (1953), during the psychiatric interview, the daughter became emotionally disturbed and shouted to

her mother, “when I was fourteen years old, you warned me to keep away from men because they would give me bad disease and would make me pregnant, just for selfish motives of their own. I believed you and obeyed you sincerely. Now after all this years how can I change?” A survey made by Marry (1950) in America also indicated that 68.6% of the teachers believed that parents were failing “today to give their children sufficient sex education.” In Exner’s (1924) survey “Where Do Teen-agers Get Their Sex Education?” Two general conclusions were offered, first, the most teen-agers do not get sex education in their homes: and secondly, that they do get it, distorted and inaccurately, from books such as “popular novels, medical texts, lewd pamphlets and comics”; and from the movies.

In a public opinion pool conducted in Russia in February 1991, as many as 87% of the respondents said that their parents have never spoken to them about sex (Riodam, 1993). As Kon (1993) reported the all-union public opinion center conducted a representative survey among the Russian population, asking “Did your parents talk to you about sex education?” Concerning this question, as few as 13% said “yes”; 87% said “no”. Again in the same year, the responses for the question “Have you spoken, or do you intended to speak to your children about sex education?” were 51% said “yes” and 48% said “no” (men are 6% less likely

to speak about this than women). In this study it was indicated that the bulk of affirmative replies came mainly from younger people, so that the range varied from 83% in the 20-24 age to 23-24% in the over 55 group. Kon (1993) expressed that young people, however, talk in the main of what they intended to do rather than what they actually do.

Until recently, requests for sex education in Denmark have emerged from a desire to overcome two problems: the parent fears first that its sons (daughters) might contract venereal disease, and second that its daughters might become pregnant while unmarried (Braested, 1970). As the finding indicated in Denmark, parents originally sought a solution to the above problems by protecting the younger children from all knowledge of sex. Recently, yet a third fear has been added to the problems, resulting from the availability of reliable contraceptive (Braestup, 1970). The new availability of reliable contraceptives creates the fear that if premarital coitus is thereby accepted and made easy, promiscuity and venereal disease will increase. Parents are mostly against their daughters using contraceptives and other adults tend to call a girl using contraceptives prostitute (Bruhns, 1996). Poffenberger (1960) also indicated that parents in our society have for generations said little about sexual activity.

In general pregnancy prevention is difficult for a girl in an environment where the attitudes towards contraceptives in pre-marital relationships are very negative (Bruhns, 1996).

In the case of cohabitation, the majority of parents consider cohabitation outside of marriage to be either immoral, emotional, unhealthy, or unwise, and say they will work to prevent or eliminate such behavior in their own offspring (Macklin, 1976).

2.3.2 Religion

Religion may be associated with contraceptive use and fertility levels. According to Seyoum's (1986) findings, religious outlooks and certain traditional attitudes such as "sexism" appear to have operated against the participation of females in education in Ethiopia. These factors seem to affect the education of females particularly in rural Ethiopia even today.

As Ramateu (1986) cited by Lynne (1988) stated that Islam is against limiting childbirth (i.e. against permanent contraceptive methods). It has been suggested that Islam has been an effective barrier to the diffusion of family planning in some countries (Centers for Disease Control, 1983). This may relate more to Muslim cultural attitudes towards family life. In a study, which was done by Vandewiele (1979), some girls in a school are anxious about pregnancy,

since because of the prevailing Islamic religion, the use of contraceptive is hardly accepted.

In Korea, as Kang cited by Burke (1970), many programs have been devised in family life and sex education, but little information is included on contraceptive methods, which Kang feels, is a result of fear encouraging premarital sex. It was also indicated that the Presbyterian Church in Korea is against teaching about contraception in schools. Family planning has been opposed by certain Roman Catholic groups, who associate this form with reducing the population (Burke, 1970). Bruhns (1996) also found that nurses do not give contraceptives to teen-age girls because it is against their religious belief.

On the other hand, according to Dilnesaw's (1995) finding women's religious affiliation was found to be unrelated to their contraceptive behavior. But in the study, although the relationship between religion and attitude towards contraception was not significant, being affiliated with the protestant and Muslim religion decreased the chance of contraception as compared to belonging to the Orthodox Christian.

Most of the religious people condemn the use of condom. For example Maas (1995) for concerned Christian women of Namibia, gave the following response to the call of Sister Namibia concerning on the use of condom. "We

surely have the responsibility to protect our bodies from sexually transmitted diseases. We can do so by being obedient to the commands of God. We should free fornication and we should not commit adultery. Remember fornication and adulterers will not inherit the kingdom of heaven, but a vehicle of deceptive thinking, wasting precious time and other resources, proclaiming a lie, there by a stumbling block to all those who are not properly informed.”

Gabriel (1995) stated that, of course, the only way to be 100% sure not to catch diseases (virus) through sexual intercourse is to have no sex at all. This might be a choice for some people for a certain time in their life. It is not the answer for all people at all time. As Higelwa (1995) indicated, using condom is seen as a statement that one is prepared to promiscuous perception like this make it difficult to promote condom use. In a study which was done by Needham and Schur (1963) on college students, it was found that on unmarried persons using birth control devices, Catholics were expectedly more punitive than others.

Christianity experienced many profound changes in culture. For example, Kon (1993) indicated that Russian Orthodox believers, like all Christians, regarding sexual affairs and every thing associated with some thing unsavory, pertaining to the devil. Chastely, virginity and renunciation of sex even in marriage were looked up on as some thing ‘sacred’; however, deviations from

that ascetic principle were thought to be both legitimate and permissible, but only in marriage and for the sake of reproduction, not because of fallibility. The Church tried to keep control of people's conduct and thinking. At the same time, bearing in mind the realities of every day life, Orthodox on some issues displayed more tolerance than Catholicism did (Kon, 1993).

Bell (1974) found that religiosity was inversely related to sexual permissiveness. As Hong (1983) mentioned in the study, the religion variable, defined Church attendance was found to be negatively related to liberal sexual attitudes. Regular and occasional church attendees were less permissive than non-attendees on the question of both premarital and extramarital relations were. Moreover Martin and Westbrook (1973) found that although religion attempts to impose restrictive norms on the sexual behavior and attitude of the individual, it is by no means incompatible with a high level of sexual activity.

Moral considerations may mark other motives for opposing pre-marital sex, such as lack of information, inability to find a suitable partner, or lack of initiative or resolution in making friends with the opposite sex (Golod, 1993). As Andersen (1988) stated, a girl might no longer make demands and go about freely. Obstacles were placed in the way of her education, her play and social life. Images of females in religious texts reflect and create stereotypical sex role and legitimate social inequality between males and females. In Orthodox

Judaism the myth that females are unclean during menstruation and seven days there after also reflects a negative view of female sexuality (Anderson, 1988).

Different research outcomes showed that fundamentalist attitudes towards such moral issues as abortion and premarital sex are negative. Alston (1974) found that a majority of both Catholics and Protestants condemned any non-marital sex. On the other hand Singh (1980) found the opposite results, with a slight majority of both Catholics and Protestants approving of premarital sex. Maret and Maret (1982) examined these two findings. From their finding, fundamentalists were significantly more conservatives than non-fundamentalists. Females of both religious status groups showed less approval on both non-marital sex and premarital sex.

2.3.3 Level of Education

Many studies have shown that education of females is strongly associated with the use and attitude towards contraception. In Africa, Asia and Latin America the higher the level of education, the larger the proportion of contraceptive users (UN, 1986). Women with primary education are much more likely to use a contraceptive method than women with no education but not as likely as women with a secondary education or more (Population Report, 1992).

On the other hand, a study made in Peninsular Malaysia using multi-variate analysis indicated that secondary educational status had considerably negative direct influence on contraceptive practice, suggesting that districts where educational status is lower tends to have greater contraceptive use (Ann, 1987). In Ethiopia, the proportion of currently married women using contraception rises from only 2.7% among those with no formal education to 19.1%, 37.8% and 56.8% with primary, junior secondary and senior secondary and above, respectively (CSA, 1993).

Using the odds of contraceptive use among illiterate females as reference, all groups of females with higher levels of education have a much higher chance of being contraceptive users (Dilnesaw, 1995). According to this finding, females who had completed senior secondary and above were found to have increased odds of contraceptive use by a factor of 5.246 higher than illiterate females. In this study it was found that education increases knowledge about contraceptive methods, family planning outlets and bring about favorable attitudinal changes towards contraceptive use.

Lynne (1988) as reported in World Fertility Survey (1984), knowledge of family planning was highly associated with a female's educational level. Among females, in this study, who had heard of any method of contraception, most of them knew of at least one modern method (i.e., the pill, IUD, Injection,

condoms, foam or tuballigation). In this study it was indicated that females with more education generally had better access to print materials which, in the past, was the main source of Family Planning Promotion.

Lynne (1988) stated that the largest relative proportion of females with knowledge of contraceptive methods had a secondary level of education or high and relatively lowest among females with no education. There were no users among females with a Koranic level of education.

In a survey of some 3,000 married couples in the Urals City of Perm, it was found that in families where both couples had only primary education (that is, less than eight years of secondary) cumulative frequencies of pregnancy and abortion were respectively, 43% and 35% higher than in families where both husband and wife had college/university education (Remennick, 1993). Remennick finally concluded that abortion versus contraception as a chosen birth control strategy is strongly related to education.

As Golod (1993) indicated that there are no grounds to doubt the sexual activity increases as people depart from the fixed stereotypes of traditional thinking. What is striking, however, is that level of education affects the degree of critical perception of moral principles 'prescribed' by traditional society.

According to Tesfaye (1997), daughters with highly educated mothers tend to be less traditional and at the same time more egalitarian in their outlook than

those with mothers of low education. On the other hand, girls whose mothers are illiterate or have primary education tend to be more traditional in their outlook than those girls with mothers of secondary or tertiary education. In general college girls whose mothers have completed secondary or tertiary education tend to be more achievement motivated, less traditional and more egalitarian in their gender role orientation than the other (Tesfaye, 1997).

In a study of influence of family life education on sex knowledge, it was found that age, class level and amount of parental education affect sex knowledge.

Burchinal (1960) found an opposing result from the respondent's report. According to Burchinal finding, the educational level of the family does not have a significant influence on the knowledge of the student.

2.3.4 Age

The finding of WFS (1984) indicated that attitude and use of contraception show a curvilinear relationship with age: the level of use is typically lowest at age 15 to 19, reaches a maximum for females in their thirties, and then declines especially after age of 45 (UNS, 1986).

Sathar and Chidambara (1984) in their comparative study of developing countries have also found that during the early part of reproductive life, the

incidence of contraceptive use is low: it increases in the middle ages and again falls in the older ages.

The proportion of females with spontaneous knowledge of modern contraceptives was relatively highest among 20-24 year olds (approximately 88%). The smallest relative proportion of female with spontaneous knowledge was among less than 20 year olds is 71% (Lynne, 1988). According to this researcher, knowledge and attitude of contraceptive methods were significantly associated with a female's age.

In a research made by Dilnesaw (1995), females in the middle age group (25-34) are more likely to accept contraceptive methods to regulate or terminate fertility than the younger females (15-24).

On the other hand, studies made in Asia, Africa and Latin America using Knowledge, Attitude and Practice (KAP) surveys envisage that for most of the population under review, the percentage of aged females using contraception does not differ much from the extent of use observed among younger females (UN, 1986).

In the case of sex experience and sex knowledge, age is also taken as the determinant factor. According to Kon's (1993) report, in the USSR as many as 60% (61% of females and 58% males) were in favor of introducing sex lessons at school from the age of 11 or 12; 21% were against. In this study it was also

indicated that as few as 28% of those questioned agreed that the free discussion of sex problems in the mass-circulation papers and magazines had only an adverse effect on public morality.

When Smith et al. (1980) did their research on “Adolescent Sexuality in Reactions to Humor,” they found that in early adolescence (age 13), the appreciation of the pictorially explicit sexual cartoons by the females was significantly less than by males when sexual explicitness was extreme. According to these researchers, the above result may be reflecting the continued influence of familial relations on females’ responsiveness to sexual material. The female at this age still is under the restraints of proper “Lady Like” behavior being parental control.

2.3.5 Access to Family Planning Services and Mass Media

In addition to religion, parental attitude, educational level and age access to Family Planning Service and Mass media has often been regarded as an important factor-affecting attitude towards sex education.

In analyzing data from WFS of developing countries, the proportion of females currently using effective contraceptive method was much higher for females who knew where family planning services were available than for those who did not know (Charles, et al. 1983). Cochrane and Guilkey (1992) found

that females who were exposed to family planning education in a community or family planning message on mass media were consistently more likely to use every method of modern contraception than others. As Boulier (1985), Tsui and Ochoa (1989) cited by Cochrane and Gibney (1991) access to family planning services increases the likelihood of contraception.

In a research which was done by Dilnesaw (1995), respondents who reported the Government Hospital and FGAE clinic as sources of family planning information were found to have increased odds of ever use of contraception as compared to those who hear such information from friends, relatives or mass gatherings. In this study it was also indicated that, although the relationship was weak, females who mentioned mass media (Radio, TV, magazines) as source of information were more likely to have ever used contraceptive methods.

In a study which was done by the Institute of Sociology in 1983-5 in Moscow and two other representative cities Ufa and Saratou, about their birth control knowledge, attitudes and practice, a large percent of males and females had never heard of the pill (Remennick, 1993). The opinions of males and females on the main properties of either sex had only a vague idea of their advantages and disadvantages (don't know replies).

Bardis (1963) from his prepared sex knowledge inventory for 45 control and experimental group found that as a result of the family life education, the sex knowledge of the students increased extensively.

In 1990 theUSSR had 98.4 abortions per 1000 females aged 15-44 and 127 abortions per 1000 children born. The major cause of the high abortion rate, however, is inadequate information and incompetence (Riordom, 1993).

The literature review of this study can be summarized in the following way.

Sex education is the most important aspect of human relation that has to be considered as one part of education in a school. The best possible integration between the physical and emotional and mental aspect of the personality and the best possible integration between the individuals and groups in which he or she must function are the main purpose of sex education. The expansion of sex education as early preparation for marriage and proper way of sexuality should be positive. But as it has been observed from different findings, the sexual knowledge of most girls in a school was found inadequate.

The attitude of female students towards contraception was influenced by different factors. Among these factors, the attitude of their parents was found to be the major one. Most parents do not give permission to their daughters to discuss on sex-related issues. In most cases parents believe that giving information about sex and using contraception leads their daughters towards

promiscuity and become pregnant while unmarried. Parents further believed that discussion on sex in front of female children is immoral.

The other determinant factor of the attitude of female students towards sex education is religion. Religious doctrines consider the use of contraception as breaking a rule against God. In general religions impose restrictive norms on the sexual character and attitude of females towards sex education in Muslim, Orthodox and Protestant followers.

The third factor that influences the attitude of females towards sex education is the level of education. In this case as the level of the education of parents increases, the outlook of their daughters towards sex education also increases. From different findings, it was obtained that level of education had direct relation to the attitude of females towards sex education. On the other hand it is also reported that the education status had a negative direct influence on contraceptive.

The fourth factor, which was taken as one of the determinant factor, is age. Different researchers believe that the attitudes of females towards contraception is lowest at early age and reaches maximum in their middle age and then decline at older age. On the other hand it was found that the influence of age is insignificant in the determination of the attitude of females towards sex education.

The last factor treated in this study is the source of information. As it has been observed from different findings, a large proportion of females who obtained family planning information through FGAE and mass media were consistently more likely to use any method of modern contraception than others who do not have adequate information.

CHAPTER THREE

3. DESIGN OF THE STUDY

3.1 Subjects

3.1.1 Sampling Procedure

The Amhara region consists of eleven zones. Out of the eleven zones in the region, South Wollo was selected through purposive sampling technique. The school that was selected within this zone is Woyzero Sihin academic, vocational and technical secondary high school. The reasons for the selection of the above zone and high school were:

1. The selected area was more accessible to the experience of FGAE,
2. It reduces the variability of the school location.

The target population of the main study consists of all female students from grade 9 – 12 with a total number of 2412. The required sample size was 148 female students from Woyzero Shin high school. In addition to the above subjects, the mothers of the 148 students were included in the study. Using stratified sampling technique 42 students from grade 9, 38 students from grade 10, 35 students from grade 11 and 33 students from grade 12 with their mothers were selected. All responded to the questionnaire properly.

The criteria for selecting subjects were:

- a. In order to include the productive age, female students whose age is above 13 were selected randomly from each grade.
- b. Based on the selected subjects, female student's mothers were selected. The reason of this selection is in most cases female students share experience with their mother.
- c. In order to have the same background; married female students were excluded from the sample.

3.1.2 Training of Assistance

Before the fieldwork started, the assistants who participated in administering the instruments were given training as to how they should go about administering the instruments. Two full days orientation was given to them. They were skilled in methods of rapport and in the accurate administration of the instruments. They were also given a chance to practice the process. Discussions were held on their performance. Four female assistants participated in administering the instrument.

3.2 Variables Included in the Study

Two major sets of variables were included in the study. These are:

3.2.1 Independent Variables

- a. Psychological variables: based on the objective of the study, the attitudes of students' mothers towards sex education (x4) and source of information (x5) were taken as one set of independent variables.
- b. Background and other Variables: variables such as religion (x1) age (x2) and grade level (x3) are included in this category.

The effect of religion, age, level of education, parental attitude and source of information is analyzed against the dependent variable.

3.2.2 Dependent Variable

Attitude of the student toward sex education is the main dependent variable utilized in this study. Attitude toward sex education is measured by measuring attitudes toward contraception and sex related issues.

3.3 Data Gathering Instrument

To collect the necessary data two types of instruments namely, a questionnaire and scale were used.

3.3.1 Background Information of the Questionnaire

In order to explore the factors that influence the attitude of female students towards sex education, a structured questionnaire was designed and administered to purposefully selected female students and their mothers from

Woyzero Sihin academic, vocational and technical secondary high school in Dessie.

The items in the questionnaire were designed to measure the following variables used in the study: background variables such as grade level, age, religion; knowledge on the variety of contraception (sex education); attitudes towards contraception (sex education); access to FGAE and exposure to mass media. Some of the items in the questionnaire were incorporated from previously used research instrument (Gough, 1975).

The one-item rating scale was used in this study as a scale of attitude measurement anticipating the practicability of the scale in the research context. It was stated that the one item rating scale is sufficient for many researches and survey purposes as a procedure of attitude measurement (Petty RE, Cacioppo JJ., 1981).

3.3.1.1 Measure of Background Information

1.Measure of age:

Age of the respondents was classified according to the reproductive age of female students and their mothers. The response of the participants was rated on a three-point scale for both respondents, where 1= less or equal to 15 years, 2 = between 15 and 20 years and 3 = greater or equal to 20 years for female students

and 1 = below 30 years, 2 = between 30 and 40 years and 3 = greater or equal to 40 years for female students' mothers.

2.Measure of grade level of female students:

Grade level of female students is classified according to the highest educational level attained by the individual. The response of the participants was rated on four-point scale, where 9 = grade 9, 10 = grade 10, 11 = grade 11 and 12 = grade 12 and 1 = illiterate, 2 = primary level, 3 = junior level, 4 = senior secondary and 5 = above senior secondary level for students' mothers.

3.Measure of religion:

The religions of the subjects were classified according to their belief in which they are currently following. The response of the participants was rated on three-point scale where 1 = Orthodox, 2 = Protestant and 3=Muslim and again 1 = regular attendant, 2 = occasional attendant and 3 = non-attendant of Church (Mosque).

3.3.1.2 Scales

1.Measure of attitude system scale:

The items shown under attitude system scale cover what Fawcett and Bornstein (1973) called freedom from traditional and dogma, willingness to innovate new ideas, and readiness for new experience. Thus, the core items of the scale were designed to measure the extent to which the individual is open

and receptive to change and to new experiences or closed and resistant to certain behavior.

The attitude system scale is composed of eleven items (four of them are attitude towards contraception and seven of them are attitudes towards sex education). It was constructed from the available literature with a little modification so as to fit the culture and level of the subjects. Examples of the items are:

1. I approve contraceptive method to avoid or regulate pregnancy.
2. The disadvantage of sex education outweighs the advantages.

In the attitude system scale, the responses to the statements are “strongly disagree”, “disagree”, “not sure”, “agree” and “strongly agree”, and they were scored 5, 4, 3, 2, and 1 respectively.

The Amharic version of attitude system scale was administered to the pilot sample and was found to be sufficiently reliable (Cronbach alpha, $\alpha = 0.65$)

2. Measure of source of information:

Seven items assumed to be relevant and meaningful to the subjects who participated in this study (female students). They were developed by the researcher. Examples of the items are:

1. Do you know the place where modern contraceptive could be obtained?

2. Have you heard information on sex education through Radio, Television or Film during the preceding month?

In the access to family planning service and mass media exposure scale, the responses to the statements are “yes very often”, “yes sometimes”, and “not at all”, and they were scored 1, 2, and 3 respectively.

The Amharic version was administered to the pilot sample and was found to be reliable (Cronbach alpha, $\alpha = 0.67$).

The different scales were prepared with the help of two graduate students of educational psychology, two graduate students of Teaching English as a foreign Language and one M.A curriculum instructor.

3.4 Data Collection

1. Following the selection of the study sites through purposive sampling technique, lists containing the names of female students and their mothers were prepared using information supplied by the school record officer.
2. Then, a pilot study was carried out on 50 female students and 50 female students' mothers. Out of the 50 female students, three of them failed to respond appropriately to the questionnaire, and they were rejected from the sample. Thus, the pilot study was conducted on 47 female students and 47 female students' mothers. In the pilot study, the instruments were administered at a time convenient for the respondents. The interviewers read each question to the

female student's mother because some of them were illiterate and the others were not proficient enough in reading. Subjects were told not respond to any item that they did not wish to answer to avoid inaccurate responses and antagonizing the subjects.

In order to avoid exchange of information between mothers and female students, questionnaires were distributed at the same time for both mothers and female students. Female Students took 30 minutes to complete the questionnaires. But the time taken by their mothers depended up on the speed of the subjects. On the average took them 40 minutes. The hall of the school was taken as the most preferable place for the collection of the data from the female student subjects.

3. Finally, the main study was conducted on 148 female students and 148 female students' mothers. In the main study the instruments were administered the same way as in the pilot study was administered.

3.5 Method of Data Analysis

The present study analyzed the influence of religion, grade level, age, attitude of parents towards sex education and access to FGAE and exposure to mass media towards sex education among high school female students. For this purpose the analyses of this study were as follow.

1. As a preliminary analysis, interrelations of independent variables were scanned to get an overview of possible overlaps among the independent variables most related to sex education.
2. Multiple regression analysis was employed to examine whether each of the independent variables influences the attitude of female students towards sex education.
3. Partial correlation analysis was carried out separately for the dependent variable to see the influence of independent variables for the dependent variable.
4. Post-hoc comparison procedure was employed for the variables to see which combinations are significantly different.
5. Finally, the F-test and t-test were used to test the direct and indirect effects of the independent variables on sex education.

CHAPTER FOUR

4. RESULTS OF THE STUDY

Results are presented in three sections. First interrelation among religion, education level, source of information, age, parental attitudes toward sex education and attitudes of female students towards sex education, second, findings from multiple regression analysis designed to assess the independent contribution of religion, grade level, source of information, age, and parental attitudes towards sex education to the attitudes of female students towards sex education are presented. Third, results of the partial correlation analysis designed to investigate the independent contribution of each variable to the dependent variable are presented. Finally the inter-correlation between the educational level of parents and the attitudes of female students towards sex education were presented.

4.1 Interrelation Among Background Information, Psychological Factors, and Attitudes of Female Students towards Sex Education

Table 1 shows zero order correlation's between religion, age, grade level, parental attitudes towards sex education, source of information and attitudes of female students towards sex education.

Table 1: Inter-correlation among Background Information, Psychological Factors, and Attitudes of Female Students towards Sex Education.

Variables	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆
Religion (X ₁)	-	.1988*	.1391	-.3921*	-.3302*	-.4517*
Age (X ₂)		-	.5818*	-.3753*	-.2594*	-.3436*
Grade level (X ₃)			-	-.4220*	-.2919*	-.4011*
Attitudes of parents (x ₄)				-	.6005*	.8407*
Source of Information (X ₅)					-	.7319*
Attitudes of Students (X ₆)						-

P* < 0.05

Table 1 indicates that the religion of the students, age and grade level was related significantly and negatively to the attitudes of female students towards sex education. Attitudes of parents and source of information were related significantly and positively to the attitudes of female students towards sex education.

Indices of background information were also related significantly to each other and to the psychological variables except the interrelation between grade level and religion. Specifically, attitudes of parents and source of information were related positively to each other as well as to the attitudes of female students towards sex education.

Both religion age and grade level was related negatively to the attitudes of parents and source of information. Finally, religion, age and grade levels were interrelated positively to each other's.

4.2 Independent Predicators of Attitudes of Female Students towards Sex Education

Multiple regression models were employed to assess relation of religion, age, educational level, parent's attitudes and source of information to the attitude of female students towards sex education.

Table 2: Results of Regression Analysis Beta Weights and Multiple Correlation Coefficients for Predicating Attitudes of Female Students.

<i>Predictor Variables</i>	<i>Standardized beta weights and dependent variables (Attitude of female students towards sex education)</i>
Religion	-0.1087
Age	-0.0118
Grade Level	-0.0501
Parental Attitude	0.5792
Source of information	0.3366
Overall R ²	0.7914

As shown in Table 2, religion, and parental attitude and source information were significant independent predictors of the attitude of female students towards sex education but age and grade level were not.

Over the entire model accounted for 79 percent of the variance in the attitudes of female students towards sex education. $F(5,142)=112.5726, p, <0.05$.

4.21 Partial Correlation Analysis Investigating the Role of Social Background Variables and Psychological Factors as a predictor Variables of the Attitude of Female Students towards Sex Education.

This section presents the partial correlation coefficients between each of the background variables, psychological variables, and the attitudes of female students towards sex education after controlling the other variables.

A) *Partial Correlation Analysis Dealing with the Impact of Religion on the Attitude of Female Students towards Sex Education.*

The partial correlation between religion and the attitude of female students towards sex education is found statistically significant when the other three variables were controlled together: age (x2), Grade level (x3), parental attitude (x4) and source of information (x5). $F(1,146)=7.069, P<0.05$.

Table 3: Partial Correlation Coefficients Associated with the Relationship between Religion and Attitude of Female Students.

Controlling for other variables.

<i>Variables Correlated</i>	<i>Partial Correlation</i>
Religion (x1) and attitude of female students towards sex Education (X6)	-.2149

The correlation between the religion that the subjects follow and their attitude towards sex education was 0.0421, which was not significant at 0.05 levels.

B) Partial correlation Analysis focusing on the Relationship Between age and Attitudes of Female Students towards Sex Education.

A combination of variables in the order of religion (X1), grade level (X3), attitudes of parents (X4) and source or information (X5) has reduced the partial correlation between the age of the students and their attitude towards sex education, which was non-significant at 0.05 level.

Table 4: Partial Correlation Coefficients between Age and Attitudes of Female Students.

Controlling for other variables.

<i>Variables Correlated</i>	Partial correlation coefficient
Age (X2) and attitudes of females Students towards sex education (X6)	- 0.0211

$P^* > 0.05$

C. Partial correlation Analysis Concerning the Relation between Grade level and Attitudes of Female Students towards Sex Education.

Table 5 Shows that when the social background variables religion (X1), age (X2) and the psychological variables attitude of parents (X4) and source of information (X5) are controlled together the partial correlation between grade level and the attitude of female students towards sex education becomes statistically non-significant.

Table 5: Partial Correlation Coefficients between grade level and attitudes of female students.

Controlling for other variables.

<i>Variables Correlated</i>	<i>Partial correlation coefficient</i>
Grade level (X3) and attitudes of females Students towards sex education (X6)	-0.0869

$P^* > 0.05$

D) Partial Correlation Analysis dealing with the Impact of Parental Attitude towards sex Education and the Attitude of Female Students towards Sex Education.

Table 6.1 indicates that the partial correlation between the attitudes of parents and the attitudes of female students towards sex education is found statistically significant when the other variables are controlled together. $F(1,146)=128.6443, P < 0.05$.

Table 6.1: Partial Correlation Coefficients between the Attitude of Parents and Attitude of Female Students.

Controlling for other variables.

<u><i>Variables Correlated</i></u>	<i>Partial correlation coefficient</i>
Attitude of parents towards sex Education (X4) and attitude of female students towards sex education (X6)	0.6844

$P^* < 0.05$

Table 6.2: The Relation between the Extent of Discussion on Contraception and Attitude of Female Students towards Sex Education.

<u>Variables Correlated</u>	<i>Correlation coefficient</i>
Discussion on contraception and attitude towards sex education.	0.38
R ²	0.15

Table 6.2 shows that the relationship between the extent of discussion on contraception and attitude of female students towards sex education was found to be statistically significantly. The extent of discussion between students and their mothers on contraception accounted for 15 percent of the variance in the attitudes of female students towards sex education. $F(1,146)=25.76, p<0.05$.

Table 6.2.1: Post-hoc Comparisons for the Mean Difference in the Extent of Discussion on Contraception among Female Students and their Mothers.

		<i>1</i>	<i>2</i>	<i>3</i>
<u>Classification level</u>	$\bar{X}$	<i>20.36</i>	<i>25.22</i>	<i>27.86</i>
High degree of discussion on contraception (1)	20.36		*	*
Medium degree of discussion on contraception (2)	25.22			
No discussion (3)	27.86			

* Pair of groups significantly different ($P<0.05$)

The Scheffe computed above for discussion on contraception has indicated that those who have medium degree of discussion and no discussion at all have significantly higher mean than those who have high degree of discussion on contraception do.

Table 6.3: The Relation between the Extent of Discussion on Sex Education and the Attitude of Female Students towards Sex Education.

<u>Variables Correlated</u>	<i>Correlation coefficient</i>
Discussion on sex education and attitude towards sex education.	0.39
R ²	0.15

As shown in Table 6.3 the extent of discussion on sex education was significant independent predicator of the attitude of female students towards sex education. Discussion on sex education accounted 15% of the variance in the attitude of female students towards sex education $F(1,146)=25.76$, $P<0.05$.

Table 6.3.1: Post-hoc Comparison for the Mean Difference in the Extent of Discussion on Sex Education between Female Students and their Mothers

		<i>1</i>	<i>2</i>	<i>3</i>
<u>Classification level</u>	$\bar{X}$	<i>21.78</i>	<i>23.34</i>	<i>28.71</i>
High degree of discussion on sex education (1)	21.78			*
Medium degree of discussion on sex education (2)	23.34			*
No discussion (3)	28.71			

*Pair of groups significantly different ($p<0.05$)

As shown in Table 6.3.1 the mean score of no discussion on sex education has a significant difference from the mean score of high degree of discussion and medium degree of discussion.

Table 6.4: The Interrelation between the Attitude of Female Students towards Sex Education and the Attitude of their Mothers as Rated by themselves.

<i>Variables correlated</i>	<i>Correlation coefficient</i>
Attitude of female students' mothers towards sex education and attitude of female students towards sex education	0.41
R^2	0.17

Table 6.4 shows that the correlation between the attitude of mothers towards sex education and the attitude of female students was found statistically significant. Attitude of student's mother towards sex education accounted 17 percent of the variance in the attitude of female students towards sex education. $F(1,146): 29.90, p < 0.05$.

Table 6.4.1: Post-hoc Comparison for the Mean Difference in the Attitude of Student's towards Sex Education Based on the Attitude of their Mothers as they Rated.

<u>Classification level</u>	$\bar{X}$	1	2	3
		21.36	27.37	28.41
Female students whose attitude is less than that of their mothers (1)	21.36		*	*
Female students whose attitude is more than that of their mothers (2)	27.37			
Female students who do not know the attitude of their mother (3)	28.41			

*Pair of groups significantly different (P<0.05)

As it is indicated in Table 6.4.1 the computed comparisons tell us that the mean score of female students whose attitude is more than that of their mothers is found significantly higher than the mean of female students score whose attitude is less than that of their mothers. Similarly the mean score of the attitude of female students who do not know the attitude of their mother is found significantly higher than that of the score of the other groups.

E) Partial Correlation Analysis Dealing with the Impact of Information and the Attitude of Female Students towards Sex Education.

Table 7.1 indicates that the partial correlation between the source of information that were obtained from FGAE and mass media and the attitude

of female students towards sex education is found statistically significant when religion (X1), age (X2), grade level (X3) and parental attitudes (X4) are controlled. $F(1,146)=51.4601$, $P<0.05$.

Table 7.1: Partial Correlation Coefficients between source of information and Attitude of Female Students.

Controlling for other variables.

<i>Variables correlated</i>	<i>Partial Correlation coefficient</i>
Sources of information (X5) and attitude of female students towards sex education (X6)	0.5105

Table 7.2 The Interrelation between the Source of Information (from FGAE, mass media & from the school) and Attitude towards Sex Education.

<i>Sources of information</i>	<i>Correlation coefficient</i>	<i>N</i>	<i>Df</i>	<i>t-calculated value</i>
FGAE	0.61	148	146	86.52
Mass media	0.58	148	146	74.01
School	0.39	148	146	26.19

Table 7.2 shows that the relationship between the information that was obtained from FGAE and the attitude of female students towards sex education is highly statistically significant than the information that was obtained from mass media and the school. That is the information that was obtained from FGAE accounted for 37%, from mass media it accounted

33% and from the school it accounted 15% of the variance in the attitude of female students towards sex education.

Table 7.3: The Relationship between Knowledge of Contraception and Attitude of Female Students towards Sex Education.

<i>Variables correlated</i>	<i>Partial Correlation coefficient</i>
Knowledge of contraception and attitude of female students towards sex education.	0.35
R^2	0.12

Table 7.3 shows the relationship between knowledge of contraception and attitude of female students towards sex education is statistically significant. The knowledge of contraception accounted for 12% of the variance in the attitudes of female students towards sex education $F(1,146)=19.91, p<0.05$.

Table 7.3.1: Post-hoc Comparisons for the Mean Difference in the Knowledge of Contraception in the three Classification Levels.

<u>Classification level</u>	$\bar{X}$	<i>1</i>	<i>2</i>	<i>3</i>
		<i>22.13</i>	<i>24.18</i>	<i>29.08</i>
High knowledge of contraception (1)	22.13			*
Medium knowledge of contraception (2)	24.18			*
No knowledge of contraception (3)	29.08			

*Pair of groups significantly different ($P<0.05$)

The computed comparisons tell us that the mean no knowledge of contraception is found to be significantly higher than the mean values for those both with high knowledge and medium knowledge of contraception.

4.2.2 Inter-correlation Analysis Dealing with the Relationship Between the Educational Level of Female Student's Mother and the Attitude of Female Students towards Sex Education.

Table 8.1 shows that the relationship between the educational level of female students' mothers and the attitudes of female students towards sex education was statistically significant. The educational level of female students' mothers accounted for 20% of the variance in the attitude of female students towards sex education. $F(1,146)=37.5088, p<0.05$.

Table 8.1: The Correlation between the Educational Level of Female Students' Mothers and the Attitude of Female Students towards Sex Education.

<i>Variables correlated</i>	<i>Partial Correlation coefficient</i>
Educational level of female students' mothers and the attitude of female students towards sex education.	-0.4521
R^2	0.2004

Table 8.2: Post-hoc Comparisons for the Mean Difference in the Level of Education in the Five –Classification Levels.

<u>Classification level</u>	$\bar{X}$	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
		<i>18.75</i>	<i>22.90</i>	<i>24.91</i>	<i>26.00</i>	<i>33.30</i>
Above grade 12 (1)	18.75			*	*	*
From grade 9-12 (2)	22.90					*
From grade 7-8 (3)	24.91					*
From grade 1-6 (4)	26.00					*
Illiterate (5)	33.30					

*Pair of groups significantly different ($P < 0.05$)

The computed comparisons tell us that the mean negative attitudinal score of female students whose mothers are illiterate is found significantly higher than the mean score of the other groups. Similarly the mean score of female students whose mother's educational level is from grade 1-6 and from grade 7-8 is found significantly higher than that of the mean score of female students whose mother's educational level is above grade 12.

CHAPTER FIVE

5. DISCUSSION

This study investigated factors that influence the attitude of female students towards sex education. The central purpose of the study was to explore the role of certain psychological and background variables as predictor variables in regulating the attitude of female students towards sex education.

The findings of this study revealed that most of the subjects who are included in this study have unfavorable attitude towards sex education. This may be attributed to the lack of appropriate knowledge about sex related issues. The main reason for not knowing sex related issues like the use of contraception was found to be inadequate information from parents, mass media, FGAE and the religion that they follow. This finding is consistent with that of Husien (1992) who reported that knowledge on variety of contraceptives is the prominent social-psychological factor related to the level of acceptance of contraception.

5.1 Attitudes of Parents as a Predictor of the Attitudes of Female Students towards Sex Education

The significant positive relationship between the attitude of parents and attitude of female students towards sex education found in this study is consistent with Bruhns (1996) premise that people's sex attitudes are in a relative way good predictors of the attitude of their children. This implies that subjects who have favorable attitudes towards sex education are more likely to practice certain contraceptive methods.

The analysis made based on the inter-correlation and the subsequent post-hoc comparisons clearly indicted that students whose attitude is more than that of their mothers and those who do not know the attitude of their mothers posses significantly higher mean scores in the negative attitude of sex education compared with students whose attitude is less than that of their mothers. Similarly the post-hoc comparison for the mean difference in the extent of discussion on contraception and sex education indicated that female students who do not discuss with their parents showed significantly higher negative attitudinal mean scores compared to those with high and medium degree of discussion. This finding goes in line with that of Mary (1950) and Kon (1993).

From this finding and other related literature one can understand that parents specifically mothers are the most known models of their daughters in sex education. In our culture and society female students in most case follow and act what their mothers wish and perform. Similarly parents do not allow their daughters to perform an action out of their interest. This is the psychological impact of female students on sex education. In general there is no open discussion between mothers and daughters on sex related issues and again the attitude of mothers on sex education is not as such clear to their daughters. This and other related factors affect the positive attitude of female students towards sex education. Generally as the attitude of parents and exchange of information between mothers and daughters increase, attitude towards sex education also increases.

5.2 Grade Level of Female Students as Predictor of Attitudes towards Sex Education

Results in the correlational analysis showed that grade level and associated factors, namely religion, attitude of parents, age, and source of information are

related to each other as well as to the attitude of sex education. Ann (1997), Dilnesaw (1995), Lynne (1989) and others reported similar findings.

Results from multiple regression analysis suggested that grade level of students was not an independent predictor of attitude towards sex education when the potentially confounding effects of the variables, that is, religion, age, attitude of parents and source of information were statistically controlled. As the partial correlation analysis indicated attitude of subjects does not differ as the result of their grade difference. This result is discrepant with that of Golod (1993) which states that the level of education affects the degree of critical perception of sexual activities.

In high school there is no significant age difference between female students. At this level their general background could almost be similar. As a result of this, there could not be significant difference in their attitude towards sex education. In general from this result one can understand that grade level by itself could not be the determinant factor of the attitude of female students towards sex education.

5.3 Religion as Predictor of Attitudes of Female Students towards Sex Education

In this study the role of religion in predicting the attitude of female students towards sex education was examined independently and jointly with psychological and background variables. Results of multiple correlation and partial correlation analysis indicated that among the variables considered, religion was the third most important variable in explaining the variation of students in their attitude towards sex education. Although being a Muslim, an Orthodox or a protestant does not bring variation in attitude, those respondents who regularly attend church (mosque) had a significant negative attitude than those who occasionally attend. Hong (1983) and Alston (1974) found similar result. Maret (1992) also indicated that fundamentalists were significantly more conservative than non-fundamentalist in sex related activities.

In church or mosque preaching females are taught not to have sexual relation outside of marriage. And it was also believed that a deliberate birth planning would be an offense against higher forces. These and others determinant factors lead female students not to practice contraception and develop a negative attitude towards sex education. Here the use condom, pill, IUD, and other types

of contraception have no place in the mind of religious females. This is the most known psychological impact on the attitude of religious female students towards sex education. Generally the findings of this study indicated that religious affiliation does not bring a significant difference in the attitude of female students. This result is discrepant with that Lynne (1989) and Singh (1980), but is confirms with that of Dilnesows' (1995).

5.4 The Effect of Educational Level of Parents on the Attitudes of Female Students towards Sex Education

The significant negative relationship found in this study between the educational level of parents and attitude of female students is consistent with Tesfaye's (1997) hypothesis that attitude of students towards sex education decreases as the educational level of their mothers decreases. That is the higher the level of their mother's education, the more favorable the attitude of female students towards sex education.

Due to the above significant relation, post-hoc comparisons were conducted for the attitude of the female students on the basis of their mothers' educational level. Female students whose mothers were illiterate had less attitudinal scores than those whose mothers are literate, i.e. 1-6, 7-8, 9-12 and above grade 12. In

this study it was also obtained that female students whose mothers' educational level is 1-8 grade had less positive attitude compared to those female students whose mothers' educational level is above grade 12. This is of course discrepant with Burchinal (1960) premise that the educational level of the family does not have a significant influence on the knowledge of student.

As the educational level of mothers' decreases, the exchange of experience between mothers and daughters on sex education also decreases. This opportunity has a significant influence on the attitude of female students towards sex education. That is being illiterate or having less educational level is the basic factor in determining the attitude of female students to wards sex education. In general as the educational level of mothers' increases, the attitude of female students towards sex education also increases.

5.5 Age as Predictor of Attitude towards Sex Education

As it has been indicated in the inter-correlation, age of a subject is negatively related to the attitude of female students towards sex education. From this confounding effects of the psychological and background variables one can conclude that as the age of female students increases their attitude towards sex education also increases. But results in the partial correlation analysis indicated

that age of the subject was not an independent predictor of the attitude of female students when religion, grade level, parental attitude, and source of information were statistically controlled. This result is similar with that of Un (1986) which states that the percentage of older females using contraception does not differ much from the extent of use among younger females. The significant relation between the age of subject and their attitude towards sex education in the interrelation is resulting from the confounded effect of the other variables, namely: religion, grade level, attitude of parents and source of information. Results in this study are discrepant with Sathar and Chidambara's (1984) finding which reveals that during the early part of reproductive life, the incidence of contraceptive use is low. In general as it has been indicated in the case of grade level, the variation of female students in age is not significant. As a result of this their variation in attitude is not considerable. That is with the absence of significant age difference, their could not be significant attitudinal difference.

5.6 Source of Information as Predictor of Attitude towards Sex Education

In this study access to family planning service and mass media were taken as the basic source of information. As a result in the partial correlation analysis

revealed, sources of information is one of the most important predictor of female students' attitude towards sex education next to the attitude of mothers. That is, as female students get more and more information from FGAE, radio, TV and magazine, their tendency towards positive attitude of sex education consistently increases. This could be due to the reason that individuals who possess high knowledge of contraception and sex related issues develop positive attitude towards sex education. Cochran and Guilkey (1992), Cochran and Gibney (1991) and Bardis's (1993) finding that as a result of the family life education, the sex knowledge of the students increased extensively support this result.

Results of the post-hoc comparisons further showed that there exists a statistically significant difference on the mean attitude scores of students with different levels of knowledge on contraception. That is, among female students, those with no knowledge of contraception have negative attitude mean scores significantly higher than those with high and medium knowledge of contraception. This result is consistent with Rememnick's (1993) finding.

As indicated in the analysis part, the information, which was obtained from FGAE, showed high degree of influence on the attitude of female students than the influence of mass media and the school. Further more, students who got

information from mass media were more favorably exposed towards sex education than those who got information from the school were.

All in all, in the multiple regression analysis, attitude of mothers, source of information, and religion were found to be the most powerful predictors of the attitude of female students towards sex education. In this study, age and grade level of the respondents were found to have no significant effect on the attitude of female students towards sex education.

CHAPTER SIX

6. SUMMARY AND CONCLUSION

In the present study attempts were made to find the influence of religion, age, grade level, attitude of parents and source of information on the attitude of female students towards sex education. Accordingly the following specific questions were entertained.

1. Does the attitude of parents affect the attitude of female students towards sex education?
2. Is there a significant difference between grade levels of female students in accepting sex education?
3. Does religion affect the attitude of female students towards sex education?
4. Does educational level of mothers influence the attitude of their daughters towards sex education?
5. To what extent does the information obtained from FGAE and mass media influence the attitude of female students?

The study included 296 subjects drawn from south Wollo specifically from Dessie (148 female students from W/o Siheen Academic, Vocational and Technical School and their mothers). The respondents were drawn from grade 9, 10, 11 and 12 from W/o Siheen Academic, Vocational and Technical School in Dessie with their mothers.

To collect the necessary data, two types of instruments, namely questionnaires and scales were used. The questionnaires were used to obtain data on the respondents' a) religion, b)age, c)grade level and d)knowledge and use of sex related activities. The scales, namely: the attitude system scale and source of information were used to measure the psychological characteristics of individual respondents.

Multiple-regression, partial correlation and post-hoc comparisons were employed to examine the data. Correlational analysis was carried out to examine over view of possible over laps among predictor variables and to have an idea about variables most related to attitude towards sex education.

A partial correlation analysis between each of the independent and dependent variables was employed to see the effect of predictor variables. Finally, post-hoc comparison was employed to observe the mean difference of each of the significant predictors.

The general finding of the study is that psychological variables are more important in determining the attitude of female students towards sex education.

The specific conclusions of the study are the following:

1. Attitude of mothers towards sex education and source of information (from FGAE and mass media) are the most important factors in the determination of female students towards sex education.
2. Religiosity is the next significant factor in the determination of attitudes towards sex education.
3. Age and grade level has no significant effect on the attitude of female students towards sex education. But the level of mothers education has a significant influence on the attitude of females towards sex education.

On the basis of the results that were obtained, the following recommendation are forwarded:

- a) Strong educational campaigns should be mounted to educate and persuade the mothers of female students to accept the benefits of sex education.
- b) Increasing parental competence and activity in providing sex knowledge to children will probably be a long and slow process. Development and expansion

of school programs in sex education are undoubtedly necessary to meet the immediate need of female students.

- c) It is possible for youth organizations, schools or youth centers to ask nurses to provide young females with information, counseling and services. This is an important provision for reducing unwanted pregnancies.
- d) Female students should be initiated to listen to radio, watch TV and read magazine regularly. These materials should be available in the school.
- e) Sex education should be given in the church (mosque) with out the objection the rule of the centers.
- f) This study is limited to one zone. It is of paramount importance, therefore, to conduct a detailed study of this type that will cover the population of the country in general.

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APPENDIX - A
ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

Background Information of the Questionnaire

Direction: - The purpose of this questionnaire is to obtain relevant information for the study on the problems of sex education. Therefore, I would like to know something about your background: educational level, age, religion and knowledge, practice and attitude towards sex education. Please listen to (or read) each of the following statements carefully and indicate (or tell) the alternative that you think refers to you.

Part I

General Information for Student's mother

<u>Level of Education</u>	<u>Age</u>	<u>Religion</u>
1. Illiterate	1. Below 30 years	1. Orthodox
2. Primary (1-6 grade)		
3. Junior secondary (7-8 grade)	2. Between 30 & 40	2. Protestant
4. Senior secondary (9-12 grade)	3. Greater or equal to 40	
	Years	
5. Above senior secondary		3. Muslim

1. Do you attend Church (Mosque)?

1. yes regularly
2. Yes occasionally
3. Never attending

2. Have you ever heard of contraception?

1. Yes very often
2. Yes sometimes
3. Not at all

3. Nine ways and methods that one can use to avoid unwanted pregnancy are listed as follows. These are pill, IUD, Injection, condom, Diaphragm, Rhythm or safe period, prolong abstinence, withdrawal and traditional methods. How many of them are known to you?

1. Almost all in all
2. More than five
3. Five of them
4. Less than five
5. All are new to me

4. How often do you discuss on contraception with your daughter?

1. Very often
2. Some times
3. No communication

5. Have you ever discussed on sex education with your daughter?

1. Yes very often
2. Yes some times
3. Not at all

6. How do you rate the attitude of your daughter towards contraception as compared with yours?

1. More than of me
2. The same as me
3. Less than of me
4. Do not know

Part II

Attitude system scale

Direction:- Below are statements related to attitude towards sex education. Please listen to (or read) each of the items carefully and indicate (or tell) the alternative that you think expresses your own feelings.

N o	Items	Alternatives				
		Strongly Disagree	Disagre e	Not Sure	Agree	Strong ly Agree
1	I approve contraceptive methods to avoid or regulate pregnancy	5	4	3	2	1
2	I intend to use contraceptive methods at any time in the future	5	4	3	2	1
3	A mother has to be a model source of information on sexual knowledge for her daughter	5	4	3	2	1
4	Discussing about sex education before marriage is necessary	5	4	3	2	1
5	The decision to use contraceptive methods is in part a moral decision	5	4	3	2	1
6	Birth control information and services should be available with Out cost to all female students	5	4	3	2	1
7	The advantage of sex education out weigh the disadvantages	5	4	3	2	1
8	Sex education decreases the					

	problems of female students in high school	5	4	3	2	1
9	Sex education has to be given in a school as a one subject					
10	It is unethical to inform to a young high school female student how she form and make sexual intercourse with her boy friend	5	4	3	2	1
		5	4	3	2	1
11	“For an effective marriage sexual satisfaction is very important. In order to check this having sexual intercourse before marriage is necessary.”	5	4	3	2	1

ADDIS ABABA UNIVERSITY
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Background Information of the Questionnaire

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Part I

General Information for Students

<u>Level of Education</u>	<u>Age</u>	<u>Religion</u>
1 . Grade 9	1.Less or equal to 15 Years	1. Orthodox
2. Grade 10	2. Between 15 and 20 Years	
3. Grade 11	3. Greater or equal to 20 Years	2. Protestant
4. Grade 12		3. Muslim

1. Do you attend Church (Mosque)?

1. yes regularly
2. Yes occasionally
3. Never attending

2. Have you ever heard of contraception?
 1. Yes very often
 2. Yes sometimes
 3. Not at all
3. Nine ways and methods that one can use to avoid unwanted pregnancy are listed as follows. These are pill, IUD, Injection, condom, Diaphragm, Rhythm or safe period, prolong abstinence, withdrawal and traditional methods. How many of them are known to you?
 1. Almost all in all
 2. More than five
 3. Five of them
 4. Less than five
 5. All are new to me
4. How often do you discuss on contraception with your mother?
 1. Very often
 2. Some times
 3. No communication
5. Have you ever discussed on sex education with your mother?
 1. Yes very often
 2. Yes some times
 3. Not at all
6. How do you rate the attitude of your mother towards contraception as compared with yours?
 1. More than of me
 2. The same as me
 3. Less than of me
 4. Do not know

Part II

Attitude system scale

Direction:- Below are statements related to attitude towards sex education. Please read each of the items carefully and indicate the alternative that you think expresses your own feelings.

N o	Items	Alternatives				
		Strongly Disagree	Disagre e	Not Sure	Agree	Strong ly Agree
1	I approve contraceptive methods to avoid or regulate pregnancy		4	5	2	1
2	I intend to use contraceptive methods at any time in the future		4	5	2	1
3	A mother has to be a model source of information on sexual knowledge for her daughter		4	5	2	1
4	Discussing about sex education before marriage is necessary		4	5	2	1
5	The decision to use contraceptive methods is in part a moral decision					
6	Birth control information and services should be available with Out cost to all female students		4	5	2	1
7	The advantage of sex education out weigh the disadvantages		4	5	2	1
8	Sex education decreases the					

	problems of female students in high school		4	5	2	1
9	Sex education has to be given in a school as a one subject					
10	It is unethical to inform to a young high school female student how she form and make sexual intercourse with her boy friend		4	5	2	1
			4	5	2	1
11	“For an effective marriage sexual satisfaction is very important. In order to check this having sexual intercourse before marriage is necessary.”		4	5	2	1

Part III

Access to Family Planning Services and Mass media

No	Items	Alternatives		
		Yes very often	Yes sometimes	Not at all
1	Do you get information from FGAE?	1	2	3
2	Do you get information from Radio/Television?	1	2	3
3	Do you get information from magazine/Poster?	1	2	3
4	Do you know the place where modern contraceptives could be obtained?	1	2	3
5	Have you ever attended sex education in the school recently?	1	2	3
6	Have you heard information on sex education through Radio, Television or film during the preceding month?	1	2	3
7	Have you read about sex education in magazine during the preceding month?	1	2	3

APPENDIX – B

Some of the characteristics of the study sample:

Characteristics	Number	Percent (%)
Grade 9 Female Students	42	28.37
Grade 10 Female Students	38	25.68
Grade 11 Female Students	35	23.65
Grade 12 Female Students	33	22.30
Female Student's Mother who are Illiterate	30	20.27
Female Student's Mother whose Educational Level is 1-6	49	33.11
Female Student's Mother whose Educational Level is 7- 8	16	10.81
Female Student's Mother whose Educational Level is 9- 12	22	14.86
Female Student's Mother whose Educational Level is above 12.	31	20.95

APPENDIX – C

Results of the Pilot Study

Reliability of the Instrument

Internal Reliability Coefficient (Cronbach Alpha)

$$\alpha = \frac{K}{K-1} \left[1 - \frac{\sum s_i^2}{S_e^2} \right]$$

- Where α = Alpha coefficient (Cronbach alpha)
K = Number of items
Si = Variance of each item
St = Variance of the total Score

Variables	Alpha Coefficient (α)	Remark
Attitude towards sex education	0.65	Good
Source of information	0.67	Good

DECLARATION

I, the undersigned, declare that this thesis is my original work and has not been presented for a degree in any other university and that all sources of material used for the thesis have been duly acknowledged.

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Date of Submission: May 20, 2000

This thesis has been submitted for examination with my approval as a university advisor.

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