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THE INFLUENCE OF SEXUALITY EDUCATION ON THE SEXUAL KNOWLEDGE AND ATTITUDES OF ADOLESCENTS IN BUSAN, KOREA

HYESOOK LEE KANG

Thesis submitted in fulfilment of the degree
Doctor in Health Science Education in the School of Nursing Science
at the North-West University,
Potchefstroom campus

Promoter: Prof Dr M Greeff
Co-promoter : Prof Dr MP Koen

POTCHEFSTROOM
2005

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ABSTRACT

Adolescence is a period of physical, emotional, and social development that represents the transition from childhood toward adulthood. Adolescents therefore experience intense and vigorous physical changes and an increased awareness of their own sexuality. They are also in a physical and mental period of preparation to become a social being, and have a natural curiosity about sexual matters. To satisfy their sexual curiosity, they obtain sexual information mostly from their friends and from lascivious media, especially websites on the internet. Consequently, they obtain incorrect knowledge and distorted sexual views. Moreover, adolescents in Korea, especially in the middle period of adolescence, are much more tolerant and open about many aspects of sexual attitudes and behaviour. They now engage in sexual relations at an earlier age as a result of the weakening of sexual morals and materialism in Korean society. They are exposed to sexual risks such as unwanted pregnancy, abortion, STDs, and HIV/Aids. It is therefore important for adolescents to be educated on sexual matters, and to protect themselves against sexual risks. They should have accurate sexual knowledge to make critical sexual decisions, and to form positive sexual attitudes to enhance sexual behaviour.

The purpose of this study was to investigate the sexual knowledge and attitudes towards sexuality of adolescents in Korea, so as to compile a comprehensive programme in sexuality education and to evaluate the influence of the comprehensive sexuality education programme on the knowledge and attitudes of adolescents in Korea.

The Randomized Solomon four-group design was used as the method of this study. The selected sample consisted of two groups for the experimental group and two groups for the control group, from two randomly selected co-educated middle schools in Youngdo-gu in Busan, Korea. The experimental group was exposed to the sexuality education programme, while the control group received reading matter similar in content to the sexuality education programme, to reduce the Hawthorne effect.

A questionnaire was compiled by the researcher to evaluate adolescents' knowledge of and attitudes towards sexuality. A comprehensive sexuality education programme was compiled based on the literature.

The sexuality education programme consisted of fifteen sessions of 45 minutes each. A session was presented each week for fifteen consecutive weeks. A questionnaire was used to collect data on two occasions: one week before the programme was presented and again two weeks after the end of the programme. The data was analysed by means of a frequency analysis, t-tests and correlations by using the SPSS/PC Window 10.0 programme.

The results of the research indicated that the effect of the sexuality education programme obviously increased the sexual knowledge adolescents and brought about a positive change in their sexual attitudes.

It is therefore recommended that the sexuality education programme for adolescents with its comprehensive content should be presented in an interactive style to learners by a skilful sexuality education educator. The recommendations of this study focus on adolescents as the object of education, the sexuality education programme, the educator and general recommendations.

[Key words: adolescent, sex, sexual attitude, sexual knowledge, sexuality education]

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CHAPTER ONE

OVERVIEW OF THE RESEARCH

1.1 INTRODUCTION AND PROBLEM STATEMENT

In the past, health was seen from a pathological viewpoint as "a state of freedom from physical disease and weakness" (Chung *et al.*, 1993:22). Early definitions of health were mostly limited to sanitary measures invoked against nuisances and health hazards. With the great bacteriological and immunological discoveries of the late nineteenth and early twentieth centuries and the subsequent development of techniques for their application, the concept of prevention of disease in the individual was added. The World Health Organization (WHO) in 1948 defined health as "the state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". The concept of health, therefore, changed from a static status more to a pursued dynamic and positive health behaviour (Chung *et al.*, 1993:24; Nam, 1998:5). A more recent definition of health as formulated by the WHO states that "Health is a dynamic state of complete physical, mental, spiritual and social well-being and not merely the absence of disease or infirmity" (Khayat, 2004).

As part of this positive approach to health, health promotion became a focus. Health promotion refers to measures that can be taken to encourage healthy behaviour and enhance what people can do themselves. Breckon *et al.* (1994:5) and Chung *et al.* (1995:21-22) define health promotion as "the combination of educational and environmental supports of actions and conditions of living conducive to health". Senghor (1987:4) also links up economic, social and cultural development as inseparable further aspects of health promotion.

In the period immediately after the Second World War, the main health concern of international development efforts in developing countries was to reduce overall mortality (Senghor, 1987:3). More advances in biology and medicine, however, increased health benefits available to individuals, groups and countries. It was also realised that the quality of people's life is strongly interrelated with the attention given to population change and social development. The International Conference of Population and Development's programme of action underscored the integral and mutually reinforcing linkages between population and development (Cho, 1999:13). In 1965, the Human Reproduction Unit of the WHO was established, and supported family planning programmes. When the United Nations Population Trust Fund came into being in 1967, followed by the Teheran Proclamation of the United Nations Conference in 1968, the emphasis shifted more to family planning, following the trend set by the WHO. Many governments then directly or indirectly started to support family planning programmes (WHO, 1994:2). By the early 1980s, the effectiveness of family planning was very successful due to this support and advances made in contraceptive technology (Nakajima, 1994:1-2).

After the matter of population control had been addressed, reproductive health, however, became the focus of attention (Cho, 1998:21). The 1994 the International Conference for Population Development held in Cairo had to categorically move from family planning to a broader reproductive health approach. This approach was accelerated in many countries (Cho, 1998:79-80). The WHO, which is leading in this field, recognises that reproductive health is not only important at individual and family levels but also to societies, countries and the world. The WHO defines reproductive health as all matters relating to the reproductive system and to its functions and processes. Cho (1999:31) expands on this definition and states that reproductive health care should be seen as the constellation of methods, techniques and services that contribute to reproductive health and which also

prevents and solves reproductive health problems, such as treatment for the complications of pregnancy, abortion, infertility, reproductive tract infections, breast cancer and cancers of the reproductive system, as well as sexually transmitted diseases, including HIV/AIDS.

The WHO reports on worldwide estimates from 1990-1995 indicate unmet family planning needs for 120 million couples, twenty million adults living with HIV/AIDS, 585 thousand maternal deaths annually, 20 million cases of severe maternal morbidity, 7.6 million prenatal deaths, 20 million unsafe abortions, and 333 million cases of curable sexually transmitted diseases (Rice, 1996b:7). The latter explains the need to emphasise reproductive health.

The specialists in health education in the WHO thus urged health promoters and health educators to be more concerned about reproductive health as an aspect of health, as it has a major impact on the public's health and welfare (Rice, 1996a:3). Reproductive health programmes and activities should therefore educate and inform both sexes about all aspects of reproductive health, including healthy sexuality, fertility regulation, sexually transmitted diseases (STDs) and HIV/AIDS infection and prevention (UNFPA, 1998). Hence, the need for health sexuality education is evident.

A recent change in the field involves the use of the term *sexuality education* rather than *sex education*. *Sex* is suggestive of sexual activity or sex organs, while the word *sexuality* is more inclusive and indicative of social, psychological, relational and other aspects of sexual being. Sexuality education is seen as a comprehensive lifelong educational process that encompasses not only gaining information about sexuality but also forming attitudes and learning about development, relationships, affection, gender roles, feelings and all other aspects of being a sexual human being (Cho, 1999:52; Kelly, 1994:36). It is, however, important to realise that there has also been significant shifts in sex-related attitudes

spanning various periods of history and social change. Human attitudes about sex cannot be easily classified in any single way because there are many different factors involved in their creation and expression. The sexually related attitudes of and values held by individuals clearly do not exist in a vacuum (Kelly, 1994: 31).

Of all the subjects of sexuality education, adolescents are the most important group as they experience the most vigorous physical changes and an increased awareness of their own sexuality, even though they are in a socially, mentally and economically immature phase of life. They are also in a physical and mental period of preparation to become a recognisable healthy social person (Chelala, 1990:21). Concerns about sex also arise in this period. Growth towards sexual maturity takes place and has a great influence on maturity and personality as a whole (Sim, 1999:1). However, this emerging sexuality of the adolescent presents both opportunities and problems (Hanlon & Pickett, 1984:422). The Ministry of Health and Wellfare in Japan (MHWJ, 1998:42) emphasises the need for an integrated educational, domestic and social support system, as adolescents have to deal with sexual problems and curiosities.

Sexuality education for adolescents mostly focuses on contraception and sexually transmitted diseases, as well as on HIV/AIDS education (Kelly, 1994:35). The problems experienced in adolescents, however, is more related to teenage pregnancy, unsafe abortion, sexual violence, sexually transmitted diseases and HIV/AIDS, which is increasing in the world (Chelala, 1990:21; Ladipo, 1990:20; WHO, 1992:29; WHO, 1993:27). This increase in sex-related problems with adolescents is linked to factors such as lifestyle and peer influence, as well as a lack of communication with their parents (Chelala, 1990:21-22; Kong, *et al.*, 2000:9).

As this research was conducted in Korea, the problem statement focuses on this country specifically.

In Korea, the age of the onset of puberty of adolescents has been decreasing from 13-14 to 10-11 years of age, as seen in earlier physical changes (Kim & Lee, quoted by Park & Moon, 2003:350). Existing sexuality education programmes offered to schools by health centres have caused more curiosity about sexuality than giving learners satisfactory answers to questions. The content of sexuality education has so far focused on anatomical and physiological information on the reproductive system, and has been lacking information on sexual values, knowledge and preventive behaviour, such as self-concept, prevention of sexual abuse, contraception and prevention of sexually transmitted diseases (Kong *et al.*, 2000:14). The programmes are usually short and brief.

More detailed knowledge is mostly obtained from friends and the mass media, such as pornographic videos, movies, internet sites and magazines (Kong *et al.*, 2000:16; Moon, 2000:414). Parents have very little input in educating children on sexual matters, as it is not freely discussed within the family. The deluge of uncertain and unhealthy sexual information and distorted sexual knowledge thus leads to adolescents' being misinformed about sexuality, and often indulging in unhealthy sexual practices. This is evident in the increase in the percentage of adolescents involved in first sexual intercourse at a young age in Korea (Chang *et al.*, 2001b:305; Lee *et al.*, 2000a:213). The latter practice leads to an increase in sexually transmitted diseases and HIV/AIDS (Kwan, 1999:86), unwanted pregnancies and abortions (Kim, 2000:1), prostitution (Lee, 2001), sexual abuse (Kim, 2000:64), sexual harassment, single motherhood and teen childbirth (Huh, 2000). The prevalence of teenage single mothers has been increasing. In 1991 they constituted 24.3% of all births, in 1996 42.5% and in 1997 47.9% (Kong *et al.*, 2000:9). It was found that 33% of

single mothers were pregnant due to contraceptive failure, stemming from ignorance of sexual knowledge (Kong *et al.*, 2000:1). Furthermore, recently another sexual practice has come into use, called *Wonzogyoze*. This refers to sexual intercourse between young girls and older men. This is mainly done for material gain and to fulfil their material needs (Anon., 2001a). *Wonzogyoze* has thus led to a further acceleration of sexual problems, such as teenage pregnancy, induced abortion and sexually transmitted diseases (Anon., 2003a). The general lack of sexuality education or limitations in how it is presented at present could thus contribute to this growing problem (Anon., 2001a).

Adolescents in Korea need to obtain more accurate information to increase their sexual knowledge and thus prevent sex-related problems by being able to choose their sexual attitude and behaviour (Lee *et al.,* 2000a:212; Sim, 1999:13). A more comprehensive approach could be the answer.

In view of the above-mentioned problems the following research questions arise:

What knowledge and attitudes do adolescents in Korea have concerning sexuality?

What will the effect of a comprehensive programme in sexuality education be on the knowledge and attitudes of these adolescents?

1.2 RESEARCH OBJECTIVES

The following research objectives are set for this study:

2.1 To investigate the sexual knowledge of and attitudes towards sexuality of adolescents in Korea.

2.2 To compile a comprehensive programme in sexuality education for adolescents in Korea.

2.3 To evaluate the influence of the comprehensive programme in sexuality education on the knowledge and attitudes of adolescents in Korea.

1.3 HYPOTHESIS

The compilation and presentation of a comprehensive sexuality education programme for adolescents will increase their knowledge and positively change the attitudes towards sexuality of adolescents in Korea.

1.4 PARADIGMATIC PERSPECTIVE OF THE STUDY

The metatheoretical, theoretical, and methodological assumptions of the researcher will be discussed in the paradigmatic perspectives that follow.

1.4.1 Metatheoretical assumptions

The researcher's metatheoretical assumptions are founded in the Christian faith and related subjects. The assumptions regarding person, environment, health and illness are described as follows:

- **Person**

According to Scripture, God created the person (male and female) as a whole being (body, mind and spirit) in His image. Therefore, the person is a noble and precious existence who thinks, feels and has free will to choose. The person cannot live alone but lives in cooperation with other persons in a community. The person thus develops physically, emotionally, cognitively, and socially under the influence of the environment in each age-state and in interaction with others after having been born. God also created the person with

the task to be fruitful and increase in number, fill the earth and subdue it. He gave sexual desires to people; these desires are ideally fulfilled in a relationship of sharing, love and equality within marriage. Although a person's sexual instincts exist from birth to death, it is most notably expressed during adolescence.

- **Environment**

God created the world (environment) from a formless and empty mass to a living world. The world that God created was beautiful and did not have any insufficiency for life. Humans were put in charge of creation to inhabit, cultivate and care for the environment. Humans shared the environment with other God-created beings and man-made objects. This sharing of the environment implies interdependency between people and environment. However, the environment of man-made objects have both positive and negative aspects. Therefore, people's chosen lifestyle can either have a positive or negative influence on the environment; influences from the environment can either enhance or pose a threat to people's health and well-being.

For the purpose of this study environment refers to the environment in which the adolescent is growing up posing certain value systems and norms. It refers to the home environment as well as the school and social environment with its information explosion via the mass media with which the adolescent is bombarded.

- **Health**

Health refers to more than the absence of disease or infirmity; it is a combination of physical, mental, social and spiritual well-being of the whole person. Conditions of health are hereditary through family genes, the environment and individual lifestyle. However, health depends more on the environment and individual lifestyle than on the heredity of

family genes. In order to maintain a state of health, people therefore must not only keep a sanitary environment but also possess relevant knowledge, and demonstrate the application of the knowledge by means of behaviour and attitudes such as physical exercise, healthy eating and recreation habits and sexual practices.

It is argued in this study that the adolescent's health, especially sexual health, can be promoted by adequate knowledge and positive attitudes by means of comprehensive sexuality education.

- **Illness**

According to Scripture, illness was once seen as a punishment for a sin that a person's ancestors committed. Illness may be interpreted as everything that is different from the shape of God's creation. Therefore, it can be said that illness implies physical, mental, social, and spiritual problems. Physical illness is seen as the result of a situation where a person is unable to react effectively on threats from the environment (pathogenic organisms, pollution) or from lifestyle choices that will have a detrimental effect on his or her well-being. Pathogenic organisms cause infectious diseases which, as a result of globalisation, spread beyond national boundaries with people, such as in the case of sexually transmitted diseases. Illness, however, can be prevented by gaining knowledge through education and having positive attitudes, which could result in more healthy societies.

For the purpose of this study, *illness* refers to the promiscuous sexual attitudes and behaviour displayed by adolescents that can be prevented by a change in attitude and behaviour by the application of knowledge gained through the envisaged comprehensive sexuality education programme.

1.4.2 Theoretical assumptions

The researcher's theoretical assumptions are based on existing knowledge as described in the sources as indicated.

1.4.2.1 Conceptual definitions

The conceptual definitions described are: adolescents, sex, sexuality education, sexual attitudes, and sexual knowledge.

- **Adolescents**

Adolescents are people in the period of adolescence, which is a period of emotional, social, and physical transition from childhood to adulthood (Kelly, 2001:166). The range of an adolescent's age varies, but is considered to be between 10 to 19 years (Sikes, 1996a:15) or 12 to 18 years (Anon., 2001b). Puberty is an early phase of adolescence. Puberty is the stage in human development when the body becomes capable of reproduction. Puberty is considered to begin at the age of 12 for girls and 14 for boys (Strong *et al.*, 2001:159).

In this study *adolescents* refer to people in the age group of 12 to 18 years. In Korea, *middle school learners* refer to learners in the age group of 13 to 15 years.

- **Sex**

Sex refers to the biological aspects of reproduction that encompass the anatomy (structure) and physiology (function) of the male and female sexes (Byer & Shainberg, 1994:4) as well as physical activities involving the sex organs (Rathus *et al.*, 2000:5). In this study *sex* also refers to sexual intercourse.

- **Sexuality**

Sexuality is the core of the difference between males and females (Baumeister, 2001:25), and an integration of the biological, emotional, social, and intellectual aspects of an individual's personality expressed in maleness and femaleness from birth until death (Michel, 2000:45). Development of sexuality continues throughout our lives, and adolescents explore their sexuality through relationships with others (Kelly 2001:155).

- **Sexuality education**

Education implies teaching and learning in order to enhance people's lives. Sexuality education thus refers to the continuum of influence exerted through a guided learning process on the development of human sexuality (IEE, 1985:4549) and emphasises the teaching of people at different ages, with regard to, for instance, sexual behaviour, sexual knowledge, and sexual interests according to age-appropriate levels (Hyde & DeLamater, 1997:582). It also refers to the teaching of social norms with scientific knowledge of sexuality, including not only biological functions and knowledge but also the formation of healthy sexual values, for example the mechanics of reproduction, the physiological and psychological phenomena relating to sexual response, sociological aspects of sexual behaviour, the social roles of males and females in society and their relationship with each other (EA, 1970:629). Sexuality education therefore comprises a harmonious integration of knowledge, emotional education and behavioural guidance.

- **Sexual attitudes**

Attitudes are predispositions that a person has to think, feel or act in certain ways (Smith, 1968:26). Sexual attitudes thus imply the thoughts, feelings, emotions and behaviours a person have about sexuality, and are related to personality and culture (Kelly, 1994:30; Warren & Jahoda, 1973:9). However, it refers to a person's ability to control his/her own

actions toward sexuality (Strong *et al.*, 2001:38), for example the physical activities that involve the body in the expression of erotic or affectionate feelings (Rathus, *et al.*, 2000:5).

- **Sexual knowledge**

Sexual knowledge implies sufficient knowledge about sexuality. It is thus a crucial factor for the emotional adjustment of sexual attitudes and better decisions about responsible sexual behaviour (Golden *et al.*, 2001:291; Rathus *et al.*, 2000:6) and to prepare people better to promote their own sexual life as well as to understand the sexual lives of other people (Coleman &. Roker, 1998:13).

1.4.3 Methodological assumptions

The researcher's methodological assumptions are founded in the tradition of the natural sciences. "Good science" implies the presentation of valid and reliable data by means of structured data collection methods and statistical analysis of the collected data. A quantitative research approach is the approach of choice to achieve the goal of quality data obtained through a formal, objective and systematic research process to investigate the sexual knowledge base of adolescents and to test the effectiveness of the developed comprehensive sexuality education programme for adolescents.

1.5 RESEARCH METHODOLOGY

A brief outlay of the research design, method, and data analysis follows. A more detailed discussion follows in Chapter 3.

1.5.1 Research design

The Randomised Solomon four-group design (De Vos, 1998:135) is the design of choice for this research, as it minimises threats to internal and external validity and controls the

reaction effects of the pre-test. Two experimental and two control groups were part of the design. The experimental groups received the sexuality education.

TABLE 1.1: The Randomised Solomon four-group design

	Group	Pre-test	Treatment	Post-test
Experimental group	E1	R	X	O
	E2	-	X	O
Control group	C1	R	-	O
	C2	-	-	O

(De Vos, 1998:135)

1.5.2 Research method

The literature study, sampling and data collection method are briefly discussed.

1.5.2.1 Literature study

A literature study was undertaken, as explained in chapter 2, to gain more knowledge and information in order to compile the comprehensive programme in sexuality education, and to ground the questionnaire. The following themes were explored:

- health promotion and sexuality education
- reproductive and sexual health,
- understanding sexuality,
- sexuality in adolescence,
- sexual knowledge, attitudes and experiences of adolescents,
- sexuality education for adolescents

1.5.2.2 Sampling

According to Burns and Grove (1993:233), sampling involves selecting a group of people, events, behaviours or other elements with which to conduct a study. A brief discussion of the population, sample and sample size follows.

1.5.2.2.1 Population

The geographical target area for the research is Youngdo-gu in Busan, Korea. The focus of this research is on the middle schools. There are only two co-educated (referring to males and females together) middle schools in this area. One is Yeongseon co-educated middle school and the other is Shinseon co-educated middle school. The average age of adolescents in these middle schools varies between 13 and 15 years in the 7th to the 9th grade.

1.5.2.2.2 Sample

Both Yeongseon co-educated middle school and Shinseon co-educated middle school in Youngdo-gu of Busan, Korea have been included in this research. Four groups were randomly selected from the two schools for the Solomon four group design. Random selection was possible as the classes in both schools are divided equally for educational purposes and not according to variations in intelligence. See Chapter 3 for more detail.

1.5.2.2.3 Sample size

At the time of sampling, the total number of learners in Yeongseon co-educated middle school was 657, and the total number of learners in Shinseon co-educated middle school was 652. The total of the population was therefore 1309. After statistical consultation, the sample size was estimated to be at least 157 per school for this study. More detail follows in Chapter 3.

1.5.2.3 Method of data collection

The questionnaire, the comprehensive programme for sexuality education, reading matter, and the process of data gathering are briefly discussed below.

1.5.2.3.1 The questionnaire

An outlay is provided of the process followed to develop the questionnaire.

1) Method of compiling the questionnaire

The questionnaire was compiled and arranged on the basis of a comprehensive literature study. Open-ended and closed-ended questions were set, focusing on the adolescents' knowledge of and attitudes towards sexual issues. The format was based on self-completion. The questionnaire was evaluated by experts in the field of sexuality education and was evaluated for face and content validity. The questionnaire was finalised after adjustments were made according to the recommendations.

2) Pilot study

A pilot study to test the questionnaire was carried out on a part of the population not included in the main study (Burns & Grove, 1993:48).

3) Reliability and validity of the questionnaire

Reliability and validity are the two most important aspects which can influence the quality and success of research (Brink, 1996:124). According to Polit and Hungler (1997:296), the reliability of a tool is the consistency with which the tool measures the attribute. The Cronbach alpha coefficient test is used to establish the internal consistency of the questionnaire (Brink, 1996:172). Reliability of a study is also ensured by the researcher's compliance with the research process.

According to Notter and Hott (1994:119), the validity of a research tool refers to its ability to obtain the required data and to tell the researcher whether the tool will measure what it is supposed to measure. The questionnaire is evaluated by experts for face and content validity. The validity of this study was ensured by basing the questionnaire on a relevant literature study. Verification of the questions on adolescent sexuality was done by the researcher and experts to ensure the content validity, namely that the content of the questionnaire was appropriate and representative of sexually related concepts. Correction of the content and coding of the questions for statistical analysis was done by using the SPSS 10.0 computer programme.

4) Length of the questionnaire

The length of the questionnaire should preferably be limited so that it can be completed in 20 to 25 minutes (Brink, 1996:156). This is finalised after conducting the pilot study.

1.5.2.4 The comprehensive programme in sexuality education

The development, content and presentation of the programme are discussed.

1.5.2.4.1 Compiling the programme

The comprehensive programme in sexuality education was compiled by using the literature study and focusing on all aspects mentioned in journals, books, articles and internet database regarding sexuality education.

1.5.2.4.2 Content of the programme

The content of the comprehensive programme on sexuality education focuses on specific themes and is divided into 15 sessions. This is discussed in detail in Chapter 3.

1.5.2.4.3 Presentation of the programme

After having compiled the comprehensive programme it was presented by the researcher to the experimental groups over a fifteen week period so as to ensure internalising of the data. The presentation began one week after the pre-test was done on the E1 and C1 groups. The programme consisted of 15 sessions of 45 minutes each on specific prearranged days. One session was presented each week for fifteen consecutive weeks. Sessions were interactive and employed various methods of presentation and various media. The programme was presented in the school classroom of each group.

1.5.2.5 Reading matter for the control group

The control groups received reading matter on the same content about which the experimental groups received education in the comprehensive programme in sexuality education. This was to reduce the Hawthorne effect (Burns & Grove, 1993:41, 769).

1.5.2.6 Data gathering

Data gathering for the empirical study was conducted as follows:

Formal permission to undertake the study was obtained from the Busan Metropolitan City Office of Education (Appendix B), the Seobu Education Office in Busan (Appendix D), and the principals of the Yeongseon and Shinseon co-educated middle schools in Youngdo (Appendix E and F). Appointments were made to explain the research by focusing on the objectives, method, questionnaire, and comprehensive programme in sexuality education. Anonymity of the participants was ensured. After obtaining permission, the researcher ensured the cooperation of the teachers of the classes that were going to be involved in the research. The school health nurse and vice principals were involved as mediators to obtain permission from the representative of the learners' parents.

The pre-test was conducted one week prior to the implementation of the comprehensive programme in sexuality education on the E1 group and C1 group. Reading matter was given to the C1 and C2 control groups at the same time as the presentation of the comprehensive programme in sexuality education to E1 and E2 groups, to reduce the Hawthorne effect (Burns & Grove, 1993:41,769). The post-test was conducted two weeks after finishing the last session of the programme, and was conducted on all the groups, namely E1, E2, C1 and C2.

1.5.2.7 Data analysis

Data was analysed by using the SPSS/PC WINDOW 10.0 programme (2001). Pre-test and post-test as well as between-group comparisons were done with T-tests for variance analysis (Burns & Grove, 1993:508). The Chi-square (x^2) test was done for significant differences and comparisons between frequencies of the data (Burns & Grove, 1993:499).

1.6 ORGANISATION OF THESIS

The organisation of the thesis is as follows:

CHAPTER 2: **Literature review: sexuality education for adolescents**

CHAPTER 3: **Research methodology**

CHAPTER 4: **Results and discussion**

CHAPTER 5: **Conclusions, limitations and recommendation**

CHAPTER TWO

LITERATURE REVIEW: SEXUALITY EDUCATION FOR ADOLESCENTS

2.1 INTRODUCTION

In the previous chapter, the problem statement and objectives of the study were discussed and the research methodology was given briefly. In this chapter, a thorough literature study is done to serve as a scientific foundation for the study, to formulate the questionnaire and to compile the comprehensive sexuality education programme. The following themes will be discussed, namely:

- health promotion and sexuality education
- reproductive and sexual health,
- understanding sexuality,
- sexuality in adolescence,
- sexual knowledge, attitudes and experiences of adolescents,
- sexuality education for adolescents

2.2 HEALTH PROMOTION AND SEXUALITY EDUCATION

Health promotion is the process of enabling people to increase control over their health, and to improve it (Ottawa, 2002). The World Health Organization (WHO) and other international organisations advocate the support of countries in setting up strategies and programmes for health promotion. The Alma-Ata Declaration on primary health care and the health-for-all strategy have enhanced people's health and quality of life (Walker, 1999). These approaches address promotive, preventative, curative and rehabilitative health activities. Before, the approach was to only concentrate on curing disease, whereas the current emphasis is on the promotion and protection of health (Mahler, 1988:5; Senghor, 1987:3) because health promotion and prevention are better than cure (Feachem, 1986:18).

Economical, medical science and technological advances have also contributed to health promotion and protection (Mahler, 1988:6; Saracci, 1998:3). These have led to the avoidance of health risks and the improvement of well-being through better and longer lives. The last half of the previous century has thus seen a remarkable improvement in health on a worldwide scale (Saracci, 1998:3).

Health promotion strategies should be considered a reality of individual countries and regions. Both culture and economy is important (Ottawa, 2002). Health promotion strategies therefore should be aimed at ensuring equal opportunities to enable all people to achieve their full health potential through a supportive environment and access to information, life skills, and opportunities to make healthy choices (Han & Choi, 1996:3; Ottawa, 2002). In the promotion of health, consideration should be given to equity, equality, and utility (Bryant *et al.*, 1997:107-112). The focus of health promotion strategies should thus be on achieving equity and equality in both men's and women's health (Bryant *et al.*, 1997:112; Han & Choi, 1996:3), the utility of accessible information, and to enable people to gain greater control over the determinants of their own health (Ottawa, 2002).

Health promotion strategies emphasise primary health care. Primary health care takes into account nutrition, water supplies, sanitation, housing and education (Senghor, 1987:3). The latter assists people in taking preventative measures and in taking control of their own health. One important aspect of education is sexuality education, which also forms the focus of this study. In the latter part of the last century the emphasis of sexuality education shifted to the risk of sexually transmitted diseases (STDs) and the transmission of the human immunodeficiency virus (HIV). HIV, in particular, spread more rapidly due to the increased volume and speed of travel (Mertens & Carael, 1998:3; WHO, 1998:24) Since the 1980s the HI virus has spread worldwide (Chin, 1990:4), because of a massive volume of people

travelling across international boundaries for business each day. Travellers sometimes seek sexual partners on their travels, and sexual behaviour may become a means of earning money (Alleyne, 1987:9-10). Many countries have since made efforts to stop the HI virus from spreading, but the spread of the infection has continued unabatedly (Schwarthlander *et al.*, 1998:20). The spreading of HIV, therefore, has posed obstacles to the advances made in health promotion and sexuality education, but at the same time it also emphasized the need for it.

The purpose of sexuality education is to help people to enjoy a healthy sexual life in accordance with promoting safe sexual activity, not only through acquired information related to reproductive and sexual activity but also through proper knowledge about sexuality development. Adolescents are an important target population because sexuality education helps them to make a smooth transition into adulthood in good sexual health. Sexuality education is a means for them to gain knowledge, develop sexual values and attitudes, and make independent decisions regarding their own sexual health (SIECUS, 2000).

Currently, however, significant numbers of adolescents are sexually active before obtaining effective sexuality education, and most of these adolescents have unprotected sexual intercourse (Strong *et al.*, 2001:171). Adolescents thus run the risk of teen pregnancy, abortion and HIV infection as well as the traditional problem of STDs (Sikes, 1996b). According to Ladipo (1990:20), the number of abortions worldwide is assumed to be between 40 and 60 million per year, while 1 out of 20 adolescents contract an STD (Sadik, 1998). It seems that adolescents often lack knowledge to protect themselves from sexual risks (Kelly, 2001:219). To reduce the tragic rates of such sexual problems, effective sexuality education for adolescents should therefore be implemented (Kirby, 2000: 75). The

approach to educating adolescents should not only focus on providing adolescents with information aimed at protecting them from sexual risks but should also focus on encouraging the development of responsibility and decision-making skills, as knowledge in itself is insufficient to prevent unprotected intercourse (Kelly, 2001:217).

The International Conference on Population and Development in Cairo, therefore, mentions the need of comprehensive education about sexuality, and emphasizes the enhancement of human behaviour and responsible sexual choices between men and women related to reproductive and sexual activities to promote sexual health and harmonious family life (Rice, 1996b:8; Sadik, 1998; Walker, 1999). Age-appropriate sexuality education should thus be conducted for all people to increase health and quality of life.

2.3 REPRODUCTIVE AND SEXUAL HEALTH

Reproductive and sexual health are key components of health and quality of life, and sexual health forms an important part of the more encompassing reproductive health.

By the 1960s, many developed and developing countries experienced excessive population increases, leading to a decrease in economic development. In response to this trend, family planning programmes were introduced. These programmes and reproductive health policies, however, mainly focused on the physical functions of the reproductive system, especially on fertility control. While family planning programmes contributed to reducing the population, women were still exposed to the significant risks of pregnancy, abortion, childbirth and the puerperium during the crucial stages of reproduction (Walker, 1999). In recent decades, therefore, it has been recognised that personal and cultural experiences of sexual activities are intimately linked to the biological health of the reproductive system. The International Conference on Population and Development held in Cairo in 1994 addressed sexual health

as an integral component of reproductive health and family planning programmes (Paulson *et al.*, 1999:32). Reproductive and sexual health emphasized the right to have children by choice and to have a safe and satisfying sex life (Paulson *et al.*, 1999:32; Rice, 1996b:7; Sadik, 1998). The Beijing Women's Conference added equal relationships between women and men to the above list, in order to promote reproductive and sexual health. Both the man and woman should consent to and share responsibility for sexual behaviour (Sadik, 1998).

Reproductive and sexual health is linked to the lifestyles of men and women. It thus does not merely involve reproductive processes and sexually related problems but also the development of a positive life and personal relationships. Moreover, the WHO notes that sexual health is the integration of biological and psychological elements in ways that positively enrich and strengthen personality, communication and love (Paulson *et al.*, 1999:8). Sexual health thus needs to be viewed as the enhancement of sexual lifestyle and personal relations, and as more than just the ability to avoid and prevent sexual risks.

In terms of the above, sexual health must be understood as a life process (Paulson *et al.*, 1999:32). The ability to promote sexual health throughout the entire lifespan is important, and so is knowledge about the development of sexuality. Knowledge of sexuality development is necessary to help people to promote their own sexual life and to understand other people better. It is especially important for adolescents. Adolescence is a period during which major changes take place, because of the transitional period from childhood to adulthood. As a result, adolescents have turbulent experiences in accordance with their biological and emotional development. Most adolescents feel uncomfortable and confused because of a lack of knowledge about their biological and emotional changes. Moreover, adolescents are exposed to sexual risks such as unwanted pregnancy, abortion, STDs, and

HIV/AIDS. However, they also do not have sufficient information to enable them to make sexually healthy and safe decisions (Coleman & Roker, 1998:13).

Adolescents therefore need to be educated about sexual health to ensure that they can make safe decisions in their sexual lives, based on the correct information, and to ensure that they develop a positive sexual lifestyle and maintain good personal relationship (Kelly, 2001:176; Lee, 1986:16). This study will also address this kind of sexual health education for adolescents.

2.4 UNDERSTANDING SEXUALITY

Sexuality is at the core of the difference between males and females (Baumeister, 2001:25). Human sexuality is a gift from God, to be received with gratitude and used with reverence and joy (EE, 1971:207). Sexuality is thus clearly natural and generally a very enjoyable part of human life (Coleman & Roker, 1998:11).

In the section below attention will be given to the contextualisation of sexuality by analysing the concept and by referring to selected theories on sexuality.

2.4.1 Context of sexuality

Human sexuality is understood as the way in which we experience and express ourselves as sexual beings (Rathus *et al.*, 2000:5). Our development as sexual beings continue throughout our lives (Kelly, 2001:155), extending from birth until death (Byer & Shainberg, 1994:4). Sexuality is constructed through the interrelationship between individual constitutional factors and the social environmental experience that affect personality development (Josselyn, 1974:14; Strong *et al.*, 2001:24). Sexuality is thus regarded as an important part of human personality (Lee & Kim, 1982:21).

Greenberg *et al.* (1989:8-9) classifies the structure of sexuality in four dimensions: biological, psychological, social and ethical. Each dimension involves a number of factors, and the interrelationship of all four dimensions results in an individual's total sexuality. The biological dimension of sexuality involves physical appearance, especially the development of physical sexual characteristics, response to sexual stimulation, reproduction and fertility control, and physiological function. The psychological dimension of sexuality embraces a person's attitudes toward oneself and other people and emotions, which he or she learned from his or her various sexually related experiences as he or she has been growing. The social dimension of sexuality refers to cultural elements that affect people's thoughts and behaviour, such as their historical backgrounds, personal relationships, and sexually related experiences; as well as the social elements such as the home, the educational environment, religion, and mass media. The ethical dimension of sexuality involves a person's beliefs pertaining to what is right and wrong, based on religion and human relationships.

Although Greenberg *et al.*, classified the structure of sexuality into four dimensions as mentioned above, the concept of sexuality is generally expressed as "sex" in biological terms and as "gender" in sociological terms (Jang, 1997:12; Kong *et al.*, 2000:11; Lee & Bae, 1997:35). The term *sex* implies the biological difference between two sexes and sexual activities, whereas the term *gender* rather refers to masculine or feminine role behaviour in response to socialisation (Hyde & DeLamater, 1997:3). Many people, however, tend to associate the word *sex* with *sexuality*.

2.4.2 The concepts *sex* and *sexuality*

As mentioned above, most people confuse the concepts *sex* and *sexuality*. The following discussion will concentrate on the difference between the two concepts.

2.4.2.1 Sex

The word *sex* is derived from the Latin word *sexus*, which means "to cut or divide, signifying the division of organisms into male and female genders" (Rathus *et al.*, 2000:4). Today, we use the term *sex* when referring to the biological aspects of reproduction. These aspects encompass the anatomy (structure) and physiology (function) of the two sexes (Byer & Shainberg, 1994:4; Lee & Kim, 1982:21; Rathus *et al.*, 2000:5). We may also speak of *sex* when referring to the physical activities involving our sex organs for purposes of reproduction or pleasure, namely masturbation, embracing, kissing, coitus, etc. Sex also involves erotic feelings, experiences or desires, such as sexual fantasies and thoughts, sexual urges, or feelings of sexual attraction for another person (Lee & Kim, 1982:21; Rathus *et al.*, 2000:5). In short, sex is suggestive of sexual activity and sex organs.

2.4.2.2 Sexuality

Sexuality is an integration of the biological, emotional, social, and intellectual aspects of an individual's personality expressed in maleness and femaleness from birth until death (Michel *et al.*, 2000:45). Therefore, sexuality encompasses not only reproduction and the pursuit of sexual pleasure, but also various emotional and cultural factors of human sexual behaviour with feelings of masculinity, femininity, desire, satisfaction, love, loss, hurt, intimacy, loneliness, caring, sharing, touching, jealousy, rejection, self-esteem, and joy (Byer & Shainberg, 1994:4; Michel *et al.*, 2000:45). In short, sexuality is more inclusive, indicating that psychological, social, relational, and other aspects of our sexual being are considered.

Sexuality, as mentioned above, is expressed by an individual's personality, and every human gradually develops his or her own specific way of thinking and feeling, along with individual patterns of sexual orientation and behaviour (Kelly, 2001:157). Therefore, there

seems to be sexual unawareness and inactivity until puberty; yet sexuality development is a continuation of the development that has taken place since birth. Sexuality education, thus, is mostly based on sexuality development theories, because the development theories are relevant to understanding the development of human sexuality from birth. Selected sexuality development theories will provide a background for appropriate teaching methods based on the realisation of the developmental process as a model.

2.4.3 Sexuality development theories

As sexuality development theories emphasise that sexuality development is learned and shaped by culture, socialisation, and situational influences (Baumeister, 2001:27; Zimbardo *et al.*, 1977:3), sexuality development is a determinant of adult personality (Cho *et al.*, 1996:69; Liebert & Spiegler, 1994:45). An individual's personality development is affected by many circumstances, and is established gradually through interactions of biological and emotional factors and learning from the social environment throughout the lifespan (Cho *et al.*, 1996:64; Juhasz, 1973:3; Kelly, 2001:157; Strom *et al.*, 1989:30).

During the process of learning from the social environment, the supplying of information can be constructed knowledge, the ability to think, judge and evaluate for oneself. On the other hand, according to the sexuality development theories, the developmental tasks and problems associated with it during the learning process are also faced while moving toward optimal emotional development along with biological development. Emotional development can affect personality positively or negatively.

Taking these points in consideration, the psychoanalytic theory, psychosocial theory, and social cognitive learning theory will be explained, with the emphasis on sexuality development. In particular, the psychoanalytic theory and psychosocial theory will be described in detail, focusing on how personality develops between early childhood and

adolescence. The psychoanalytic theory insists that sex energy, or libido, is one of the key forces in human behaviour, and explains sexual orientation and sexuality development (Hyde & DeLamater, 1997:390). The psychosocial theory emphasises that social influences are particularly important for sexuality development (Hyde & DeLamater, 1997:296). The social cognitive learning theory emphasises human attitudes and behaviour by cognition and learning from imitations and observations during the personal life process, especially childhood and adolescence. This study, therefore, will look at sexuality development of adolescents based on the psychoanalytic, psychosocial and social cognitive learning theory.

2.4.3.1 The psychoanalytic theory of Freud

The psychoanalytic theory of Freud describes the development of sexual instincts of human beings from birth to adolescence. Sigmund Freud (quoted by Hyde & DeLamater, 1997:29) sees the libido as being focused in various regions of the body as erogenous zones which produce feelings of pleasure because of the extreme sensitivity of the region to stimulation. Thus, the psychoanalytic theory of sexual development emphasises the role of sexual instincts in human behaviour. The libido is important in individual sexual development and can affect personality formation (Cho *et al.*, 1996:69). Freud conceptualises the development toward sexual maturity as a process of a particular period in the development sequence (Juhasz, 1973:29; Liebert & Spiegler, 1994:46, 57). The development stages are the oral stage (age 1), the anal stage (age 1-3), the phallic stage (age 3-5), the latency period (age 6-12), and the genital stage (adolescence) (Cho *et al.*, 1996:69; Juhasz, 1973:30; Kelly, 2001:158; Kim, 1982:51-55).

The first stage, lasting from birth to about one year of age, is the oral stage. The oral stage is the first mode of approach to incorporation (Erikson, 1950:67). Children live with the mother's breast (or bottle), and its accompanying sucking pleasure. In this theory, children's

chief pleasure is derived from sucking and stimulating the lips and mouth as the libido (Erikson, 1950: 67; Juhasz, 1973:30; Kelly, 2001:158; Liebert & Spiegler, 1994:58). Therefore, children may develop different personalities, such as optimistic or pessimistic personalities, in response to overindulgence or frustration. Children who are fixated by overindulgence, would be expected to display optimism. In contrast, children, who are fixated by frustration, would be expected to develop pessimism (Liebert & Spiegler, 1994:59). According to this theory, the first sexual expression of human nature is orally.

The second stage, which occurs during approximately years 2-3, is the anal stage (Liebert & Spiegler, 1994:62). During this stage, children's interest is focused on excretion. They begin to be toilet trained and learn how to pleasurably control retention and excretion. Muscle control becomes the prototype for self-control in general. If children easily accede to their parents' toilet training demands because their parents train them regularly and with kind words, they will develop the basis for successful self-control. They will develop benign and creative personalities because of a stable emotional state. On the other hand, if children have difficulty to develop self-control because their parents train them irregularly and strictly, they will develop aggressive, destructive and stubborn personalities because of the displeasure of an unstable emotional state (Kim, 1982:51; Liebert & Spiegler, 1994:62-63).

The third stage of development, lasting from age 4 to age 5, is the phallic stage (Liebert & Spiegler, 1994:65). In this stage children become aware of the anatomical differences between the sexes. The boys' interest is focused on their phallus (penis), and they derive great pleasure from infantile masturbation. For girls, the phallic stage begins with their traumatic realisation that they have no penis. They could feel jealous and suffer from penis envy. The most important occurrence in this stage is the development of the Oedipus complex in boys, meaning that a boy loves his mother and hates his father; and the

development of the Electra complex in girls, implying that a girl hates her mother and is sexually attracted to her father. Sooner or later, the child stops desiring his or her parent (mother or father), and shifts to identifying with the parent. Children try to imitate their parents' gender roles of maleness or femaleness (Hyde & DeLamater 1997:29; Liebert & Spiegler, 1994:65-66). Thus, children are aware of themselves as a boy or a girl, and of the different roles and expectations of the different genders. A sense of sexual parts and sexual roles are likely to be part of children's thinking before the bodily and emotional changes of adolescence start to occur. Furthermore, Freud considers the Oedipus or Electra complex and its resolution to be one of the key factors in human personality development (Hyde & DeLamater, 1997:29; Liebert & Spiegler, 1994:66). Normal adult personality thus requires a successful resolution. An unsuccessful resolution inevitably leads to psychological problems, such as the tendency to fear closeness and love, and the tendency to appear courageous and to be prone to show off (Liebert & Spiegler, 1994:66).

Only after the pregenital stage of libido has successfully been resolved, children's sexuality graduates to a short-lived infantile genitality, after which children immediately become more or less "latent," transformed, and deflected. The genital machinery is still immature, and the first objects of immature sexual desire are forever barred by universal incest taboos (Erikson, 1950:58).

The fourth stage of development, from middle childhood until the onset of puberty, is a latency period. During this stage, the sexual impulses are repressed or are in a quiescent state, and so nothing much happens sexually. (Hyde & DeLamater, 1997:30; Kelly, 2001:158). The cathexis toward the opposite sex is latent. Homosexual attraction is thus stronger than heterosexual attraction at this stage. Children therefore are more interested in the same gender and express an attitude of ambivalence toward the opposite sex. Libido in

this stage is associated with the same gender, but then changes to friendship (Liebert & Spiegler, 1994:69). This change aspect becomes a basis for socialisation. On the other hand, self-identity is formed at this stage, and sociality and rationality is required through sublimation (Kim, 1982:55).

The final stage, when the libido becomes focused on the sex organs, begins at puberty and is called the genital stage (Kelly, 2001:158; Liebert & Spiegler, 1994:69). Libido is again focused on the genital area. With adolescence, therefore, sexual urges reawaken, and children move into the genital stage. During this stage, sexual urges become more specifically focused on the genital area, and the oral, anal, and genital urges all fuse together to promote the biological function of reproduction. (Hyde & DeLamater, 1997:30). As a result, libido is directed toward heterosexual pleasure. The greater an individual's success in reaching the genital stage with successful resolution of all previous stages, the greater the person's capacity will be to lead a normal life, free of neurosis, and to enjoy heterosexual relationships (Liebert & Spiegler, 1994:69). If, however, libido does not have a successful resolution at this stage, the personality may be inclined towards be homosexual love, sexual perversion, and negative sexual attitudes.

Freud's stages of sexuality development, therefore, imply that the libido gradually moves to various parts of the body concerned with sexual pleasure. To progress to the next stage, the libido must be freed from the primary erogenous zone. This is necessary because each individual has only a fixed amount of libido. The ability to transfer libido from one stage to the next depends on how well the individual has resolved the developmental conflict associated with each psychosexual stage (Liebert & Spiegler, 1994:57). Theorists, therefore, insist that each developmental stage is a critical period in sexuality development because adult emotional and mental problems are the result of certain psychological problems

experienced during the stages of sexuality development (Cho *et al.*, 1996:69; Kelly, 2001:158). That is, if sexuality development is accomplished in all stages, the personality may emerge as optimistic, benign, creative, cooperative and socially active, and with control over sexual desire towards the opposite sex. If sexual development fails, however, the result is pessimism, aggressiveness, destructiveness, a tendency to be afraid of closeness and love, and a tendency towards showing off. Moreover, Freud (quoted by Kim, 1982:56) insists that if sexual interest and curiosity are suppressed in childhood, there is a likelihood that homosexual tendencies, sexual perversion, and negative sexual attitudes will develop.

Freud's theory, as explained above, has had a big effect on the attitude towards the education of children. Parents and teachers tried to prevent a situation where children lived with unsatisfied desires. As a result of that, most Western societies, however, experience sexual and social problems, especially among adolescents, because of the liberal expression of sexual desire. Freud suggests that sexual desires must be expressed sublimely. Kim (1982:56) explains this as the expression of sexual desires through social activities and productive activities such as cultural activity, creative activities, scientific invention, sports, and music.

Freud's psychoanalytic theory had been revised by Erik Erikson. Erikson believes that there is a powerful libido built into all of us, but that cultural and social influences help to shape our sexual identities, including our sexual behaviour (Kelly, 2001:160).

2.4.3.2 The psychosocial theory of Erikson

Erikson considered Freud's latency period as a time of growth rather than stagnation, and he viewed adult development as important (Liebert & Spiegler, 1994:70). In his view, if something was present at birth, it would remain present throughout the lifespan. He argues

that there are eight critical psychosocial development periods from birth to old age (Hamachek, 1995:55; Kelly, 2001:160; Liebert & Spiegler, 1994:73). These periods are known as the eight stages of man (Erikson, 1950:219). The development stages are (1) basic trust versus mistrust (Freud's oral stage), (2) autonomy versus shame and doubt (Freud's anal stage), (3) initiative versus guilt (Freud's phallic stage), (4) industry versus inferiority (Freud's latency period), (5) identity versus role confusion (Freud's adolescence stage), (6) intimacy versus isolation (young adulthood), (7) generativity versus stagnation (adulthood), and (8) ego integrity versus despair (maturity).

The first stage of development, as identified above, is basic trust versus mistrust. The firm establishment of basic trust versus basic mistrust is derived from earliest infantile experience with maternal care and relationship. The first year of children's lives is a time when they are completely and utterly dependent on the outside world to tend to their basic needs, such as for a bottle when hungry, dry diapers when wet, warm blankets when cold, or a protecting adult when frightened. If their needs are not met with predictable consistency, they may gradually develop a sense of mistrust of the world around them (Erikson, 1950:220-222; Hamachek, 1995:55-56; Liebert & Spiegler, 1994:71). Erikson's perception of the importance of basic trust is that the capacity to depend on other persons has its roots in the first year of life. If young children had essentially positive experiences with emotionally dependable adults, they may tend to show more signs of trust than mistrust in their behaviour. However, young children who had essentially negative experiences with emotionally undependable adults, may tend to show more signs of distrust than trust in their behaviour. Children may then be inclined to avoid relationships, to be somewhat suspicious of others, and to have trouble sharing themselves or their possessions (Erikson, 1950:222; Hamachek, 1995:57, 62). Young children, therefore, must develop sufficient trust in their mothers, through feeding and kinship.

The second stage of development is autonomy versus shame and doubt. Children come to develop a sense of autonomy, which is originally accomplished with respect to bladder and bowel control. The experience of this stage involves two simultaneous sets of actions, namely holding in and letting go (Erikson, 1950:223) The inherent contradiction between these two actions may in the end lead to either benign or hostile expectations, according to parents' toilet training methods. Parents, therefore, can encourage a healthy sense of autonomy during this phase through a wise balance of firmness and permissiveness. On the other hand, if parents train children in a too restricted or too punitive way, and/or if parents are overprotective, they can interfere with growing children's natural inclination to try to assert themselves in different ways, and shame and doubt may result (Erikson, 1950:224; Hamachek, 1995:57; Liebert & Spiegler, 1994:71). Shame is a fear of condemnation from the outside. Thus, the child experiences shame of being unable to demonstrate self-control, and this becomes the basis for future problems with independence (Erikson, 1950:224; Liebert & Spiegler, 1994:71). Moreover, people of any age who have not tested themselves are invariably plagued with self-doubts because they are uncertain about what they can or cannot do (Hamachek, 1995:57). This stage becomes decisive for the ratio of love and hate, cooperation and wilfulness, and freedom from self-expression and its suppression (Erikson, 1950:224). Therefore, the children must come to have basic faith in existence, which is the lasting treasure saved from the rages of the oral stage. If children do not have sufficient opportunities to develop a sense of autonomy, however, the sense of initiative associated with Stage 3 is more difficult to attain.

The third stage of development is initiative versus guilt. Initiative versus guilt is the last conflict experienced by the preschool child. It is a time when children begin to expand their social boundaries. Children rapidly progress to new challenges in ever-widening social and spatial spheres. It is also during this stage that children begin to develop a conscience, a

sense of right and wrong, and a sense of moral responsibility (Erikson, 1950:225; Hamachek, 1995:58; Liebert & Spiegler, 1994:73). Children can also gradually develop a sense of paternal or maternal responsibility, where they can gain some insight into the institutions, functions and roles which will permit their responsible participation, and increase self-observation, self-guidance, and self-punishment (Erikson, 1950:225). On the other hand, the danger of this stage is a sense of guilt over the goals contemplated and the acts initiated in one's exuberant enjoyment of new locomotive abilities and acts of aggressive manipulation (Erikson, 1950:224). In addition, jealousy and rivalry emerge among siblings and peers. The accomplishment of these activities leads to initiative, the inevitable failure, however, leads to resignation, guilt, and anxiety (Erikson, 1950:225; Liebert & Spiegler, 1994:73). The children, therefore, must learn to take role-appropriate initiative by finding pleasure in socially and culturally approved activities, such as creative play and caring for their siblings and peers.

The fourth stage of development is industry versus inferiority. The conflict between industry and inferiority begins with school life (Liebert & Spiegler, 1994:73). Children become ready to apply themselves to give skills and tasks at school and society because of elementary school ages. They can become an eager and absorbed unit of a productive situation. As a consequence of work completion by steady attention and persevering diligence children develop a sense of industry. If children are to emerge as healthy individuals, at this stage they must apply themselves to their learning, begin to feel competent relative to peers, and face their own limitations (Erikson, 1950:227; Hamachek, 1995:59; Liebert & Spiegler, 1994:73). If children fail at this stage, they retain a sense of inadequacy and inferiority, losing the prospect of industry, and they retreat from society (Erikson, 1950:227; Hamachek, 1995:59). Therefore, during this stage, children can learn to have a healthy view of

themselves through their increasing competence and through winning recognition by producing things.

The fifth stage of development is identity versus role confusion. Childhood comes to an end, and youth begins. The most obvious manifestation is a reawakening of sexual interest. Puberty and adolescence are a period of rapid physical growth and the reaching of biological genital maturity. With the advent of puberty, the adolescent's attention turns to developing a sense of identity. An identity refers to confidence in accordance with others and society. This identity motivates adolescents to try themselves out in new ways (Hamachek, 1995:60; Liebert & Spiegler, 1994:73). The integration taking place in the form of ego identity is more than the sum of the childhood identifications (Erikson, 1950:228; Liebert & Spiegler, 1994:73). On the other hand, young adolescents may temporarily experience a sense of over identity in order to assert themselves, or a complete loss of identity in an environment of heroes, cliques and crowds. If adolescents have successfully resolved the ego challenges of the previous four stages, they have more trust than distrust, more autonomy than shame and doubt, and so on. If, however, there have been too many negative ego resolutions during the four preceding stages, this may result in identity confusion (Hamachek, 1995:60). If an identity is not formed, role confusion may occur, where this is based on a strong previous doubt as to one's sexual identity. It is characterised by an inability to select a career or to further educational goals (Liebert & Spiegler, 1994:73).

The sixth stage of development is intimacy versus isolation. Childhood and youth are at an end. This is a time, if all has gone well, when each of us begins our participation as adult members of society. Intimacy at this stage is the capacity to commit to a relationship without losing one's own identity (Kim, 1982:67; Liebert & Spiegler, 1994:73). By young adulthood, people are expected to be ready for true intimacy. All of the growth experiences

to this point have prepared the youth to participate in a close, trusting relationship with a member of the opposite sex. Whereas graduation from adolescence requires a sense of identity, graduation from the first stage of adulthood requires a sense of shared identity, which some find in marriage and others in various living together arrangements (Hamachek, 1995:62). They must develop cooperative social and occupational relationships with others and select a mate. If they cannot develop such relationships, they will remain isolated. Adolescents and young adults without a firm sense of self have been found unable to commit to another person (Erikson, 1950:228).

The seventh stage of development is generativity versus stagnation: This is that period in persons' lives when they literally generate or produce whatever it is that gives them a sense of personal creativity (Hamachek, 1995:62), and a mature person must do more than establish intimacy with others. Generativity involves guiding the next generation as a parent, worker, husband, wife, participant in the community, and so on (Kim, 1982:67; Liebert & Spiegler, 1994:74). The danger in this period is that some individuals are unable to release themselves from the web of their own self-doubts (Hamachek, 1995:62), and the individual may feel stagnant and personally impoverished (Liebert & Spiegler, 1994:74).

The eighth stage of development is ego integrity versus despair. Despair in later life results from not aptly handling the preceding conflicts. When this occurs, people feel disgusted with themselves, and correctly realise that it is too late to start another life. Such individuals remain in a state of incurable remorse for the rest of their lives (Kim, 1982:68). In contrast, the development of adaptive qualities in the other seven stages leads to having a lasting sense of integrity (Hamachek, 1995:62; Liebert & Spiegler, 1994:74). Therefore, finally, as adults develop a new generation, they gain a fuller perspective of their own cycle and are in a position to reach the fullest sense of trust. It involves a sense of wisdom and an inner

peace, which have roots in early trust, youthful independence, vigorous initiative, established identity, and a sense of generativity (Hamachek, 1995:62).

Therefore, the theory of Erikson mentions that the emotional development during childhood and adolescence may have a serious effect on the development of human personality. The personality is shaped by interaction between individual, situational and societal factors. That is, if the sexuality development is accomplished well during childhood and adolescence, a personality may emerge which is marked by a sense of trust of other persons, autonomy in the form of freedom of self-expression, initiative as a sense of responsibility, industry resulting from a sense of achievement, and establishment of self-identity. On the other hand, if sexuality development is accomplished negatively during childhood and adolescence, the resultant personality may display a sense of mistrust and be somewhat suspicious of other persons, avoid relationships, have trouble sharing him-/herself or his/her possessions, and be inclined to self-suppression, a sense of inferiority, and a sense of role confusion because of the negative resolution of the ego. Furthermore, if sexuality development has been resolved successfully during the previous five stages, then the person can achieve intimacy with other persons and the opposite sex, generate a sense of personal creativity and engage in cooperative social activity. Finally, people have a lasting sense of integrity and gain a fuller perspective of their own cycle involving a sense of wisdom and an inner peace. In contrast, as the result of the absence of sexuality development, someone may remain isolated because of social inadaptability, and experience a sense of stagnation because of personal impoverishment. Finally, such people may experience feelings of disgust, a sense of despondency, a loss of the own self and incurable remorse for the rest of their lives.

Moreover, during adolescence and young adulthood each individual has the task of achieving a clear understanding of his- or herself as a sexual person and of achieving a sense

of intimacy with other human beings (Kelly, 2001:160). Adolescents and young adults without a firm sense of self-esteem and self-identity are usually unable to commit to another person (Liebert & Spiegler, 1994:73-74). Therefore, sexuality education also needs to consider adolescents' self-awareness and positive feelings about themselves. This process should be supported by open talks and warm relationships in order to form healthy friendships and intimate relationships with another people.

2.4.3.3 The social cognitive learning theory of Bandura

Albert Bandura insists that sexuality development is influenced by learning through observation and identification with other people. He explains that human behaviour is influenced by environmental aspects.

The social cognitive learning theory is a combination of the social learning theory and the social cognitive theory. The social learning theory is also called a modelling or observational learning theory, since its basic concepts are imitation and observation (Kim *et al.*, 1997:38; Lee & Oh, 1998:4; Liebert & Spiegler, 1994:421), which are an important means of transmitting behaviour in the social and environment situation (Lee & Oh, 1998:4). The imitation and observation are useful in explaining the development of gender identity, or one's sense of maleness or femaleness (Hyde & DeLamater, 1997:33). The relation between observation and imitation can be viewed as a three-stage process: exposure at the first stage, acquisition at the second stage, and acceptance at the third stage; and only then imitation is accomplished (Liebert & Spiegler, 1994:422). This process is thus assumed to be continuous and lifelong (Baumeister, 2001:32; Brown *et al.*, 2002:16; Cho *et al.*, 1996:14; Kelly, 2001:137; Strom *et al.*, 1989:30).

The social cognitive theory expands the radical behavioural view that is influenced by environmental factors and personal variables. The social cognitive theory thus emphasises the role of the learners' thoughts, feelings, beliefs, attitudes, and values (Liebert & Spiegler, 1994:421; Schunk, 1996:13), and considers human functioning as a series of reciprocal interactions among personal factors, behaviour, and environmental events (Kelly, 2001:137; Schunk, 1996:140). This line of thinking addresses the way in which people seek control over important events in their lives through self-regulation of their thoughts and actions (Bandura, 1986:20). In a word, the social cognitive learning theory is the idea that human learning occurs in a social environment (Schunk, 1996:102). Behaviour, therefore, is a result of learning from observations and experiences through the interaction between groups.

Moreover, the most powerful implication of behaviour is reinforcement (Hamachek, 1995:24). That is, once behaviour is learned, the behaviour will be repeated if reinforced, and if the behaviour is not reinforced, the behaviour will stop. Successful experiences with an activity over time create a sense of competence at performing the activity (Hyde & DeLamater, 1997:33). Negative consequences of behaviour through unpleasant results, however, tend to decrease the frequency of the behaviour (Kelly, 2001:159).

The theory of Bandura stresses that children are socialised by their parents, peers and other environmental factors through observation, imitation and instruction. The learning from observation and experiences through the interaction between self and the environment is continuous and lifelong, and behaviour is a result of learning. Successful experiences with behaviour over time create a sense of self-efficacy, and negative consequence of behaviour can lead to a decrease in the frequency of the behaviour.

Therefore, the sexual preferences and behaviour can be shaped by observational learning, a complex pattern of reinforcement, and stimuli through sexual responses (Kelly, 2001:159).

Sexual expression relative to the sex role, therefore, can be changed during adolescence, and the manner of sexual expression differs according to social and cultural difference. That is, sexual cognition and attitudes of an individual are formed by his or her biological structure, emotional state, social norm, cultural aspects, and personal relationships (Cha, 1998:4). Considering these points, adolescence is an important period of sexuality development because it is a transitional period between childhood and adulthood, and acquiring a sense of social and personal responsibility.

2.5 SEXUALITY IN ADOLESCENCE

As sexuality education is the focus of this study, emphasis will be placed on sexuality in adolescents. During adolescence, there is a significant degree of biological and emotional growth, and the forming of a healthy social person with the integration of biological, emotional and social development (Kim, 2000:7; Kong *et al.*, 2000:12; Lee, 1987:12). Such changes of development add to confusion and new feelings. Furthermore, the peer pressure to test new activities and to behave in certain ways is immense. Adolescents also are curious about the opposite sex and want to have a special relationship with someone of the opposite sex, and strive toward independence from their parents. This section, therefore, focuses on the actual changes that take place during adolescence, in terms of the biological and emotional changes of puberty, changing social and peer relationships during adolescence, and patterns of sexual activity.

2.5.1 The concepts puberty and adolescence

Before proceeding to the aspects mentioned above, puberty and adolescence will be discussed. These terms are often used synonymously, and the difference between them will be clarified below.

2.5.1.1 Puberty

Many bodily changes take place during adolescence, particularly with regard to the body becoming capable of reproduction. The period of bodily changes for sexual maturation is called *puberty* (Coleman & Roker, 1998:5; Michel *et al.*, 2000:56). The term *puberty* is derived from the Latin word *pubertas*, meaning "the age of manhood" (Van Rooyen & Ngwenya, 1997:52). Puberty as a phase overlaps the closing years of late childhood and the beginning of adolescence. Van Rooyen and Ngwenya (1997:52) describe puberty as "that phase in the life of a human being when the sex organs mature and a person makes considerable progress on his way towards becoming a man or a woman". Another description of puberty is a time of sudden and uneven growth (Kelly, 1994:53; Sim, 1999:9). Puberty is the significant difference in the timing of bodily changes for boys and girls in accordance with their own gene characteristics, nutrition, and environmental factors. Thus, there is wide a variation in both the pattern and the timing of puberty. In terms of gender, the average age for the onset of puberty is earlier for girls than for boys: age ten to ten-and-a half for girls, and eleven-and-a half to twelve for boys (Coleman & Roker, 1998:5). Puberty, then, refers to the biological changes concerning sexual maturation, and leads to adolescence.

2.5.1.2 Adolescence

The term *adolescence* is derived from the Latin word *adolescere*, which means "growth" or "development to maturation" (Song, 1993:3). During adolescence, there is a large degree of sexuality growth, as children make adjustments in their personality due to the rapid physical and sexual emotional developments that are characteristic of this period of life (Strong *et al.*, 2001:159-160). There is no typical adolescence period (Strom *et al.*, 1989:65; Sim, 1999:10) because of individual differences in the appearance of secondary sex characteristics (Sim, 1999:10). The range of adolescent age is described very diversely to be

between 10 and 19 years of age (Sikes, 1996a:15), 13 to 19 years of age (Hyde & DeLamater, 1997:284), or 12 to 18 years (Anon., 2001b). Female adolescence mainly appears 2 years earlier than male adolescence. The life stage of adolescence is divided into three overlapping periods, namely early (8 to 13 years for girls, 11 to 15 years for boys), middle (13 to 16 years for girls, 14 to 17 years for boys), and late (16 years and older for girls and 17 years and older for boys). Adolescence, therefore, is the period of biological, emotional, and social development that marks the movement from childhood toward adulthood (Brown *et al.*, 2002:2; Carr *et al.*, 2001:3; Kelly, 2001:166; Michel *et al.*, 2000:56; Sikes, 1996a:17). Adolescence may therefore be described as a period of physical, emotional and social development that moves childhood toward adulthood.

As the focus of this study is on adolescents in Korea, it is important to define the range of adolescent age. The Korean government decided that the range of adolescent age is between 12 to 18 years, because most secondary sex characteristics of young adolescents in Korea appear around 12 years, and the age at which learners complete their high school training is 18. However for legal purposes the range of adolescent age is between 9 to 24 years (Cho *et al.*, 1996:10). The range of adolescent age in this study will be regarded as being between 12 to 18 years.

2.5.2 Various aspects of development during adolescence

Cha (1998:5) has found that to understand adolescents' sexuality correctly, it is necessary to consider the biological, emotional and social aspects of sexuality. There are various aspects of biological, emotional, and social development during adolescence, as will be indicated below.

2.5.2.1 Biological development during adolescence

Although individual differences are common and considered natural phenomena in the process of sexual maturation, all adolescents experience remarkable biological changes, such as rapid growth, emergence of secondary sex characteristics, and development of the reproductive system. In the process of sexual maturation, the male sex hormone (testosterone) from the testis and female sex hormone (oestrogen) from the ovaries stimulate the emergence of secondary sex characteristics and the reproductive system.

The sex hormones produce the secondary sex characteristics in order to develop a person's masculinity or femininity (Rathus *et al.*, 2000:399; Strom *et al.*, 1989:66; Van Rooyen & Ngwenya, 1997:54;). These hormones accelerate uneven body growth, and stimulate pubic and auxiliary hair growth and increase the activity of the sweat glands in both male and female. In addition, in boys testosterone stimulates an increase in the size of the breasts, enlargement of the adam's apple (larynx) and deepening of the voice, and thickening and coarsening of the skin. On the other hand, oestrogen stimulates the girls' breasts to develop, nipples to become darker and the circle around the nipple to become bigger, and the hips to broaden and become rounder to make room for the increased size of the internally located female sex organs. The skin also becomes smooth and thicker (Strom *et al.*, 1989:66).

The sex hormones also stimulate the reproductive system. Testosterone stimulates an increase in the size of the testes, scrotum, penis, seminal vesicles, and prostate gland. Sperm production increases to fertilise an egg cell, and nocturnal ejaculation occurs in males. In females, oestrogen stimulates an increase in the size of mammary glands, the ovaries, the uterus, the fallopian tubes, the labia, the clitoris and the vagina. Menstruation occurs in females, which enables them to bear children. Menarche (first menstruation) typically occurs about 2 years after initial pubescent changes are noted. The menstrual cycle is a self-

regulating and dynamic process. The length of the cycle and the intervals between ovulation are not the same for each person. Regardless of the cycle length in a female, ovulation occurs at approximately 14 days before the onset of the next menstrual period (Crooks & Baur, 2002:97). That is, if the menstrual period is a 28-day cycle, ovulation from one of the ovaries occurs monthly in a female on average 14 days after the beginning of menstruation. An ovum can live an average of 1 day after ovulation (Rathus *et al.*, 2000:399; Strom *et al.*, 1989:66; Van Rooyen & Ngwenya, 1997:54-55)

Sperm production and ovulation take place for purposes of bringing about pregnancy. The process of fertilisation and pregnancy may be described as follow: when ovum which has been released by an ovary passes in the oviduct, and sperm from testes of a male enters the female vagina and then move upward to meet and fertilise the ovum in the oviduct. The sperm can live an average of 3 days in a female oviduct. Finally, pregnancy is achieved when an egg is fertilised. Symptoms of pregnancy are missed menstrual period(s), fatigue, nausea/vomiting, breast enlargement or breast discomfort (tenderness), and abdominal distension (Anon., 2001c; Hyde & DeLamater, 1997:148; Lambert, 2000). The early stage of pregnancy from conception to 12 weeks gestation or about 14 weeks from the first day of the last normal menstrual period is the embryonic stage. In this stage the foetus may be easily deformed by the effect of certain medicine and radiation (Anon., 2001c; Lambert, 2000).

Sex hormones are also responsible for sexual arousal. Testosterone generally has a greater impact on male sexual desire (Crooks & Baur, 2002:143). An increase in sex hormones during adolescence thus brings about a dramatic increase in sexual interest and sexual desire (Yoon, 1996:74-77; Strong *et al.*, 2001:167).

Such biological changes are natural phenomena in all adolescents, regardless of aspects such as race and nutrition. When adolescents undergo biological development, they also experience emotional changes (Sim, 1999:10). It is important to know that adolescents undergo emotional adjustments along with their bodily transformation (Cho *et al*, 1996:43).

2.5.2.2 Emotional development during adolescence

Adolescence is certainly the most turbulent and emotional period in a person's life (Strong *et al*., 2001:167). Many young adolescents feel confused, excited, anxious or uncomfortable. Freud (quoted by Kelly, 1994:53) explains it as follows: "Adolescents cannot avoid emotional confusion because of sexual development during adolescence." Growth 'spurts' cause adolescents to experience feelings of tremendous uncertainty, discomfort, clumsiness and awkwardness. As a result adolescents experience emotional problems and emotional growth during this period.

Although menarche and first ejaculations generally represent a maturational landmark, reactions may differ among the sexes. Because of the feelings associated with erections and nocturnal emissions in boys, the pubertal boy may usually be delighted to perceive his increasing male abilities during an erection (Van Rooyen & Newenya, 1997:55). He may also be experiencing conflicting feelings of embarrassment and discontent because of his inability to control these new bodily reactions and because of the unpredictability of spontaneous erections and nocturnal emissions (Juhasz, 1973:13; Van Rooyen & Newenya, 1997:55). Nocturnal ejaculations may occur in any normal body as a function to release sexual tension. It may occur as often as four times a week or not at all. It could happen when a boy has erotic dreams. Nocturnal ejaculations could also be the result of a full bladder (Van Rooyen & Newenya, 1997:55-56).

On the other hand, for a young girl a first menstruation (menarche) may come as a shock, even though she has been prepared for it, and it may be accompanied by feelings of embarrassment, uncertainty and discomfort (Van Rooyen & Newenya, 1997:56). If menstruation cycles settle rapidly into regular cycles, a young girl will acquire a feeling of stability at a time when much else is changing rapidly in her life (Juhasz, 1973:13; Van Rooyen & Newenya, 1997:55). During puberty the size of the breasts is also a factor which is responsible for severe discomfort, uncertainty and worry in young adolescent girls. Recently the media in Western culture has propagated the idea that large breasts equate sexuality and femininity, with the result that women with small breasts often feel less feminine and unattractive (Van Rooyen & Newenya, 1997:56).

During puberty and early adolescence, thus, it is important to realise that boys and girls are sensitive to the emotional implication of bodily changes and social expectations (Van Rooyen & Ngwenya, 1997:53-55). Rapid physical changes result not only in fear and discomfort but also in difficulty in classifying body changes as normal or abnormal, because biological growth may not occur at the same time for everyone (Sim, 1999:10-11). For example, breast development in girls may seem "too much, too soon" or "too little, too late". Boys, although pleased with signs of their developing masculinity, may also doubt its adequacy. Adolescents, therefore, make critical comparisons between themselves and their peers and become emotionally unstable, suffering from a sense of inferiority, self-doubt, and hypersensitivity (Kim, 2000:8; Lee, K., 2000:6).

The unstable emotional state of adolescents may therefore be ascribed to the fact that they have insufficient information about the adult world and the biological changes that they are experiencing (Cho *et al.*, 1996:41; Kim, 2000:8; Lee, 1985:1). Adolescents also experience an intense feeling of subjective involvement and self-awareness (consciousness), and prefer

to spend many hours in the privacy of their own room (Van Rooyen & Newenya, 1997:56). In addition adolescents also struggle to understand the meaning of their sexual feelings towards others, as well as their sexual orientation (Strong *et al.*, 2001:159).

Consequently, adolescents, and young adolescents in particular, need a great deal of reassurance that what is happening to them and how they feel is "normal" because they express very sensitive emotional responses to their biological changes. Furthermore, adolescents need to establish self-awareness and self-esteem in order to express distinct feelings about themselves to others (Michel *et al.*, 2000:33-36; SIECUS, 2000). This is necessary because of their increased curiosity about and interest in the opposite sex, and because they try to imitate what they have observed (Kelly, 2001:137,159).

According to Freud, adolescents seek relief of emotional stress in the opposite sex. Erikson mentions that they try to establish their own beliefs and values, and to develop a self-identity. They also sometimes disobey their parents and other persons in authoritative positions during the formative process of their self-identity (Cho *et al.*, 1996:41). Adolescents gradually become fully integrated with society and their environment (Brown *et al.*, 2002:16; Kelly, 2001:137). Bandura also insists on the importance of reciprocal interactions among personal factors, behaviour, and environmental events (Lee, 1987:12).

2.5.2.3 Social development during adolescence

Concerning the above, it is important to fully understand adolescent social development. Adolescence is an intensely social period in the developmental continuum. Most male and female adolescents expand personal and social relationships (Kelly, 2001:170). Adolescents' social development is linked to the different aspects of their environment (Sim, 1999:6), and social experiences of adolescents are accompanied by their self-awareness (Hamachek,

1995:116). The norms of sexual behaviour and sexual attitudes are formed through exposure to mass media, school, religion, culture, and relationships (Crooks & Baur, 2002:71-74; Sim, 1999:6). Adolescent socialisation is marked by the influence of the mass media and their peer groups, rather than that of parents and teachers (Kong *et al.*, 2000:14).

Because adolescents try to move away from dependence on their family to search for their social world (Strom *et al.*, 1989:127), they are inclined to imitate and adopt the behaviour they see in other people whom they like and admire. Therefore, they tend to imitate contemporary dress, slang, motion, customs, and so on through observation of persons whom they like and admire (Juhasz, 1973:15). Today the media in particular has an important effect on adolescents regarding sexual behaviour by observation learning. Especially early adolescents who watch a great deal of television, movies, and videos are more likely to be affected in this way by the media. They will be more likely to assimilate and imitate behaviour they see frequently depicted by attractive models (Brown *et al.*, 2002:16). Thus, the potential power of the mass media is equally important as that of parents, friends, and others in the modelling of sexual behaviour (Kelly, 2001:159).

Another important influence in the socialisation of adolescents is the peer group. Peer group relationships are important during the adolescence because it has such an enormous impact on adolescents' social development. Peer groups take the place of the family when young people become independent from their family, and can be important sources of self-awareness and self-esteem. Therefore, peer groups provide an opportunity to practice certain skills by acting them out. Dating is also important rehearsals for eventual adulthood (Hamachek, 1995:117-118). However, puberty does not automatically confer a heterosexual orientation. Most early adolescents generally socialise with the same gender (Juhasz, 1973:16; Rathus *et al.*, 2000:392). The homosexual orientation and experimentation of early

adolescents is a widespread phenomenon and need not connote future homosexuality (Juhasz, 1973:16). Most young adolescents, thus, have temporarily negative emotions towards the opposite sex because of shame and discomfort, but sooner or later they become curious about the opposite sex and desire to date them (Hurlock, 1972:30; Kim, 2000:9). Adolescents therefore have a strong desire to date, and relationships between members of the opposite sex are meaningful to them (Park, 1996:7).

Most adolescents in different societies across the world do not experience much difficulty when they want to start dating. Korean adolescents, however, have less chances of dating, compared to adolescents of foreign countries, because Koreans have the extra burden of severe competition to pass the university entrance exam, which is much more difficult than the high school examinations. Korean parents want their children to concentrate on their studies instead of dating. Moreover, Korean parents are conservative, thus they are concerned about sexual behaviour when children are dating. As a result adolescents do not have the opportunity to meet with the opposite sex. The Kangwondo Adolescent Counselling Center (quoted by Kim, 2000:10) has found that adolescents become adults without enough opportunities to build relations with the opposite sex, leading them to experience problems when choosing a suitable match.

It is therefore important for adolescents to have friends and social groups during their sexuality development. Adolescents become much more aware of themselves as part of a particular gender group, and of the roles and expectations of that group. In the early years of adolescence, most friendship groups consist of single sex friends. Sooner or later, however, there is a significant change, with groups becoming more mixed, and with many young adolescents developing close relationships. The young adolescents start to have personal relationships and, eventually, sometimes sexual relationships. Biological, emotional, and

social development therefore should be integrated during the period of their sexuality development. Adolescents who do not undergo normal development, experience unstable states that are psychologically and emotionally related to sexual matters (Kye, 1999:6). This sexuality development affects their future sexual life and their married life (Moore & Rosenthal, 1993:1-21). According to Kim (2000:12), for adolescents to develop healthy sexual lives, they should solve their sexual curiosity and agonies, and overcome their unstable emotional state through having accurate sexual knowledge.

2.6 SEXUAL KNOWLEDGE, ATTITUDES, AND EXPERIENCES OF DOLESCENTS

This section discusses adolescents' sexual knowledge, sexual attitudes, and sexually related experiences. Many environmental factors can influence adolescents' sexual knowledge, attitudes, and behaviour (Kim, 2000:65; Moon, 2000:414; Schultze & Van Rooyen, 1990:58; Somers & Gleason, 2001:676). As mentioned earlier, sexual knowledge is a crucial factor for emotional adjustment and better decisions about responsible sexual behaviour (Golden *et al.*, 2001:291; Kim, 2000:9; Moon, 2000:415; Rathus *et al.*, 2000:6; Winn *et al.*, quoted by Coleman & Roker, 1998:22), and provides positive reinforcement (Smith, 1968:26). A lack of knowledge, thus, is the main reason for experiencing discomfort and confusion about their sexual attitudes, and for succumbing to sexual risks such as unwanted pregnancy and sexually transmitted diseases, including HIV infection, during sexual experiences.

In this section on adolescents' sexual knowledge and the sources of information about sexual matters will be discussed. It will be indicated whether or not they have the correct sexual knowledge about biological aspects, the probability of pregnancy, the dangers of abortion, STDs/AIDS and contraceptive methods. The content of sexual counselling for

adolescents will also be examined. In the section on sexual attitudes, the effect of positive or negative sexual attitudes will be discussed, as well as sexual experiences of adolescents regarding masturbation, premarital intercourse, pregnancy, abortion, contraception, STDs and HIV/AIDS. Attitudes and educational knowledge regarding adolescents' sexual experience will also be analysed.

2.6.1 Sexual knowledge of adolescents

It is important to know the sources of adolescents' information about sexual matters and whether or not they have the correct sexual knowledge, because their heightened interest in sexually related matters exposes them to an overwhelming amount of sexual information.

An individual in the state of puberty or early adolescence shows great interest in obtaining more information about the human body, its functions and its changes, as well as about human sexuality and other related matters. According to Schultze and Van Rooyen (1990:58), when children enter puberty, they already have a tremendous amount of sexual knowledge that they have accumulated over the years. Much of this knowledge, however, may be based on misconceptions or may be incorrect or partially true (Byer & Shainberg, 1994:20; Coleman &. Roker, 1998:14; Kim, 2000:65; Schultze and Van Rooyen, 1990:58; Sim, 1999: 44).

The reason for adolescents having incorrect or partially correct sexual knowledge is that they explore every possible source of sexual information, such as reading matter (including pornographic materials, if available), videos, movies (also pornographic movies) the media (especially television and magazines) and the Internet (Kong *et al.*, 2000:27; Lee *et al*, 2000a:201; Moon, 2000:414; Schultze & Van Rooyen, 1990:58). The sexually related material they find in these sources often depict immoral relationships and abnormal sexual

behaviour to create sexual interest and sexual arousal and desire. Television, moreover, is instrumental in breaking down cultural taboos on sensitive topics, in revealing the enormous diversity of human sexual expression and in displaying images of incest, rape and other sexual matters (Crooks & Baur, 2002:5-6). Consequently, adolescents talk among each other about sexually related matters, based on sexual knowledge derived from such videos, magazines, movies and television programming.

Another important source of information about sexual knowledge is friends. Clearly, peers and friends seem to be very important sources of sexual information for adolescents all over the world (Chung, 1998:24; Coleman &. Roker, 1998:14; Duh, 2000:385; Kim, 2000:65; Kong *et al.*, 2000:26; Lancet *et al.*, 1978:1086; Lee, K., 2000:47; Moon, 2000:414; Strong *et al.*, 2001:162). Until several years ago, males and females in Korea had different sources of sexual information. Male students usually picked up sexual information from friends and magazines (Park, 1996:14), whereas female students were usually taught this information by their school home-management teacher, school nurse or invited facilitators (Kye, 1999:46). According to recent studies, however, the main sources of sexual information for both male and female students are friends. Secondary sources include television, adult videos, magazines and lascivious sites on the Internet. Male students tend to be more interested in lascivious forms of media than are girls (Kong *et al.*, 2000:27). According to a study by Choi (2002:63), however, recently the most common source of sexual knowledge for middle school students, especially 7th graders, is school teachers, such as the home-management teachers and school nurses.

As a consequence of the situation described above, adolescents generally have incorrect knowledge and a lack of sexual knowledge. Younger adolescents in particular have a serious lack of the correct kind of knowledge. This situation is also evident among adolescents in

the United States (Golden *et al.*, 2001:289), England, (Winn *et al.*, quoted by Coleman & Roker, 1998:23), Israel (Lancet *et al.*, 1978:1086), Zimbabwe (Rusakaniko *et al.*, 1997:1,3), China (Ip *et al.*, 2001:211), Taiwan (Duh, 2000:385) and Korea (Chung, 1998:19; Kong *et al.*, 2000:26; Moon, 2000:424; Kang *et al.*, 2000:48-53). It has also been found that boys have better knowledge than girls and that older students are better informed than younger ones (Lancet *et al.*, 1978:1084). According to a study by Park (1996:70), high school boys have the best knowledge, whereas middle school boys have the poorest levels of knowledge on the subject. Adolescents from families with a high income are also somewhat better informed than those from families with a lower income (Choi, 1999:60). Lee (quoted by Park, 1996:13) has found no significant relation between sexual knowledge and academic performance level. According to the meta-analysis study of Song *et al.* (2000:413-417), adolescents have knowledge about the biological aspects, but are ignorant about the probability of pregnancy, the dangers of abortion, STDs and HIV/AIDS and about available contraceptive methods. Young adolescents in particular lack knowledge of all sexually related subjects, but especially concerning HIV/AIDS, pregnancy and contraception. A number of Korean studies obtained the same results, for instance Cho & Shin (1999:527), Chung (1998:22), Kang *et al.* (2000:49-52), Kong *et al.* (2000:26), Lee, K., (2000:47) and Moon (2000:420).

As mentioned above, adolescents are naturally interested in sexually related matters, but they still have incomplete sexual knowledge. As a result they experience sexually related problems, which are among their most serious problems. Adults, however, are not aware of the extent of adolescents' sexual problems; moreover, adults tend to ignore these sexual problems (Lee, K., 2000:10). Consequently, adolescents turn to their friends and counsellors to find solutions to these sexual problems (Cho & Shin, 1999:524; Kye, 1999:46; Moon, 2000:423). A three-year study (Loving call, 1993 ~ 1996, as quoted by Cho & Shin, 1999:3)

has revealed that 66.2% (361,000 of 545,000) of adolescents seek counselling for their sexual problems through the Internet. According to the Busan Counseling Center Against Sexual Violence (1996), 45.8% of middle and high school male and female students have sexual anguishes. According to the Seoul Adolescent Counseling Center (quoted by Kim, 2000:22), moreover, the most common counselling topic is sexually related matters (24.03%). Of the adolescents who seek counselling for sexual problems, 33% are male and 9% are female (Kim, 2000:22). Boys are known to be more exposed to sexual problems than girls.

The questions and topics in sexual counselling dwell mainly on sexual knowledge, such as the reproductive system and physiological functions, pregnancy and delivery. Other questions and topics are, in order of frequency of occurrence: masturbation, causes of sexual desires, how to control sexual desires, relations with the opposite sex, sexual intercourse, and sexually transmitted disease (BCCASV, 1966; Cho & Shin, 1999:3; Lee, K., 2000:10). According to the Adolescents Counselling Division in the Planned Parenthood Federation of Korea (PPFK) from January to the end of December in 1995, male adolescents requested counselling most frequently for masturbation (25.1%), sexual desires (24.9%), relationships with the opposite sex (6.2%), unwanted pregnancy (2.7%), and STDs (1.9%), whereas female adolescents requested counselling mostly for unwanted pregnancy (27.0%), relationships with the opposite sex (11.5%), sexual desires (2.4%), STDs (0.8%), and masturbation (0.7%) (PPFK, 1996). Park (1996:69) has also found that the anguishes of male middle school students are mainly concerned with friends from the opposite sex, sexual desire and masturbation, whereas female middle school students mainly experience problems with friends from the opposite sex, physical change and menstruation. This data shows that male and female adolescents experience different kinds of sexual agonies. Adolescents also have more sexual agonies if they have their own rooms, and less sexual

agonies if they have brothers and sisters (Lim, 1998:17). On the other hand, Kong *et al.* (2000:27) suggest that the deluge of unhealthy sexual information and distorted sexual knowledge can lead adolescents to indulge in unhealthy sexual practices.

Based on the above discussion, it is important for adolescents to be educated on sexual matters and to have accurate sexual knowledge, because sexual knowledge is invaluable for making critical sexual decisions, and to protect adolescents against sexual risks. According to Lee (1997:18-20), sexual knowledge is one of the factors used for the formation of positive sexual attitudes. This is the topic of the discussion in the next sections.

2.6.2 Sexual attitudes of adolescents

Sexual attitudes are attitudes toward sexually related matters. Attitudes, in general, will be discussed before focusing on sexual attitudes.

2.6.2.1 Attitudes

Attitudes are a complex mental state involving beliefs, feelings, values and disposition to act, which are expressed by evaluating a particular entity with some degree of favour or disfavour, related to personality and culture (Scholl, 2002; Warren & Jahoda, 1973:9). Attitudes furthermore are a mental predisposition that makes a person think, feel or act in certain ways (Smith, 1968:26; Strong *et al.*, 2001:38; Triandis, 1971:8; Zimbardo *et al.*, 1977:20). Individuals generally have attitudes that focus on objects, people or institutions (Scholl, 2002). Attitudes, therefore, consist of satisfactions and dissatisfactions for certain people, groups, situations and objects (Zimbardo *et al.*, 1977:20), and help a person to adjust in the social environment (Triandis, 1971:5). Attitudes connote cognitive, affective, and behavioural components (Rokeach, 1986:132; Triandis, 1971:3; Zimbardo *et al.*, 1977:20). These three components are explained as follows:

1) The *cognitive component* is in charge of ideas and perceptions that are received from the environment. It is in response to different stimuli to the environmental inputs, and is greatly influenced by culture (Triandis, 1971:9-10). The cognitive component has been conceptualised as a person's beliefs about, or factual knowledge of, the object or person. Humans can learn to react to their environment in different ways.

2) The *affective component* is in charge of emotions associated with "feeling good or bad", "pleasant or unpleasant" states, and arousing "positive or negative" situations in the individual through ideas and perceptions. Thus, this component is concerned with evaluating an object or outcome (Triandis, 1971:3,11; Zimbardo *et al.*, 1977:20). The affective component can be measured by physiological responses of like and dislike, while the cognitive component may be measured by self-ratings of beliefs or by the amount of knowledge a person has about some topics (Zimbardo *et al.*, 1977:20). Peak (quoted by Triandis, 1971:11) suggests that the experience of a positive effect towards objects helps people reach goals, and a negative effect towards objects hinder us or lead us to undesirable goals.

3) The *behavioural component* is in charge of a predisposition to action, which reflects the behavioural intentions of a person toward an attitude object (Triandis, 1971:3,12; Zimbardo, 1977:20). Any behaviour can be conceived as involving the seeking or avoiding of contact and the causing of a positive or negative effect. A person's behaviour, also, is related to social norms and what people think about an object (Triandis, 1971:12-13). The social norms are ideas by a group of people concerning what is correct or incorrect behaviour. It is particularly important to realise that social norms are of different kinds. Some norms are very strict, while some are very vague and deviation is almost permissible. There is overwhelming evidence that

different cultural groups have different norms about appropriate behaviour (Triandis, 1971:115). People's behaviour varies considerably from situation to situation. People have learned particular ways of behaving successfully in specific situations (Liebert & Spiegler, 1994:454). Facilitating acquisition and retention, therefore, can enhance immediate performance of well-learned behaviour (Bandura, 1986:61).

In general, the cognitive, affective, and behavioural components are consistent and interrelated (Joh, 1997:95; Triandis, 1971:8,12). Evaluations are often considered the central component of attitudes. Evaluations can lead a positive or negative attitude toward an object (Scholl, 2002). The more pleasant the events and the more desirable the goals, the more the affect will be. The result of cognitive and affective evaluation of objectives, therefore, is exposed by behaviour.

Attitude also relates to beliefs. Beliefs are considered a dimension of central cognition (Triandis, 1971:9), and are an evaluation of true or false, correct or incorrect, and good or bad. It advocates a certain course of action or a certain state of existence as desirable or undesirable. Rokeach (1986:132) argues that beliefs are a predisposition that results in some preferential response toward the attitude, object or situation. Cushman and McPhee (1980:15) also indicate that attitude, object and situation may activate relatively powerful beliefs. Therefore, attitude is organised around an object or a situation, and affectively loaded beliefs trigger behaviour (Triandis, 1971:6; Zimbardo *et al.*, 1977:20). Moreover, the person has attitudes toward the social objects that are present in the social situation. Social behaviour, therefore, is determined not only by attitudes but also by the situation, or by the interaction between attitude and situation (Rokeach, 1986:127).

Cognition, affect and belief may be considered in the approach to decision-making skills regarding adolescents' sexuality education. By providing them with appropriate information to make them aware of sexual risks and the harmful effects of sexual behaviour, they are provided with the means to behave intelligently (Joh, 1997:94-95). However, knowledge alone is not enough, because adolescents do not act on such knowledge (Breckon *et al.*, 1994:144). Rather, an affective approach must be combined with cognition (Joh, 1997:95). Combs (quoted by Joh, 1997:96) remarks in this regard that: "Education must be affective, also every behavior has affective aspects." Cognitive and affective information, therefore, can be induced as a positive effect toward objects based on evaluation of desirability (Nam, 1998:68; Rokeach, 1986:113). Beliefs in the given information are also as important as knowing and learning to decision-making. It could be effective when information is given with good examples (Breckon *et al.*, 1994:144; Nam, 1998:68).

Attitudes, therefore, can be developed by learning and cognition (Triandis, 1971:101; Rokeach, 1986:112). The sources of information are an extremely important aspect of attitude development (Triandis, 1971:102) because new information is affected to cognition, and develops a person's attitude and behaviour (Cohen, 1964:63). Attitudes can also be developed by providing positive reinforcement for certain attitudes and by presenting an anxiety-reducing stimulus in the presence of the negative attitude object (Triandis, 1971:63,143). Furthermore, direct experience is most relevant to the development of the cognitive and the affective components; and family and friends are most relevant to the behavioural component. The development of attitudes typically depends on the degree of positive or negative effects, and beliefs regarding objects.

The principle of consistency, thus, is not a uniformly accurate predictor of attitude change, because the human mind is so complex (Cohen, 1964:63). The attitudes are changed by the

three components of attitude changing to different rates and different degrees. Attitudes may for instance change in a variety of ways, by first changing the cognitive component with new information (Triandis, 1971:63), then changing the affective component in the direction of consistency with the changed beliefs or cognitions regarding the object (Cohen, 1964:71; Triandis, 1971:63), and then changing the behavioural component as norm change. Cushman and McPhee (1980:16) describe behaviour as a function of affect, norms, habits and expectancies about reinforcement. When all four factors are consistent, there is consistency between attitudes and behaviour, and when the four factors are inconsistent, there is much less consistency. Behaviour thus is more likely to be consistent with attitudes when one thinks of oneself, and direct experience can affect some implications for the behaviour (Triandis, 1971:119).

Moreover, since attitudes are always directed toward some object, a person's values link between attitudes and actions (Liebert & Spiegler, 1994:442-443). Values are the qualities in life deemed important or unimportant and right or wrong, which serve as guidelines to help people make decisions about actions, behaviour and life choices (Rathus *et al.*, 2000:5). Values are also not considered to be uniform because they are influenced by many factors, including people's experiences, perceptions, parents, friends and social world. Values thus vary between generations, because of changing over time (Byer & Shainberg, 1994:46). As we have new experiences and receive new information, we may re-evaluate our values. Through the process of socialisation from early childhood, the attitudes and values become associated with own sexuality development (Kelly, 2001:211).

Values in understanding psychosexual development are called sexual values. Sexual values, as the term indicates, relate to the rightness and the wrongness of sexual conduct, and are influenced by environmental factors such as parents, friends, school, books, the media and

religion (Byer & Shainberg, 1994:19; Kelly, 2001:159). Sexual values, therefore, reflect the attitudes of our social environment, and come into play in determining our sexual choices and behaviour (Rathus *et al.*, 2000:5). Sexual values, therefore, refer to sexual attitudes that are a person's ability to control his or her own actions toward sexuality.

2.6.2.2 Sexual attitudes

Sexual attitudes have been used so broadly as to include everything from the biological differentiation of males and females to masculine or feminine behavioural roles and the libido (Juhasz, 1973:55). In the development towards adulthood, adolescence is a period of formation of one's sexual identity. Sexual attitudes of adolescents are emotional and searching (Sim, 1994:14), and can be established differently in different cultures. Adolescent sexual attitudes are thus shaped by multiple influences, such as culture, socialisation, and situational influences (Baumeister, 2001:2; Crooks & Baur, 2002:3; Kong *et al.*, 2000:27; Lee & Kim, 1982:54; Sim, 1999:14; Werner-Wilson, 1998:519). Adolescents may adopt and develop "liberal or conservative" and "positive or negative" sexual attitudes in the company of their family and in their specific surroundings (Kong *et al.*, 2000:27; Lee & Kim, 1982:89). Religious belief leads to more conservative sexual attitudes (Lancet *et al.*, 1978:1085). Sexual attitudes, thus, are likely to range from very liberal to extremely conservative (Crooks & Baur, 2002:2). Personality traits, specifically positive or negative feelings about sexual matters, affect sexual attitudes (Strong *et al.*, 2001:243).

Several researchers mention that sexual experience, attitudes, and environmental aspects in childhood are related to adaptation to marriage (James, 1979:134; Klemer & Howard, 1970:556; Terman, 1938:378). For example, Rice (1979:445-446) suggests if a child is raised to feel guilt and fear towards sex, and if the sexual attitudes of his or her parents are

conservative and negative, he or she will feel guilty about sex, and will think that sex only causes pregnancy and is not for pleasure. Negative sexual attitudes that are formed before marriage can thus affect married life by causing an unsatisfactory sex life after marriage (Lee, 1986:15; Terman, 1938:378). According to the study of Kong *et al.* (2000:28), moreover, negative sexual attitudes about sexual desires and sexual behaviour result in unease and a guilt complex after marriage. On the other hand, according to the study of Lee (1986:15), positive sexual attitudes that are formed in adolescence lead to a harmonious and satisfactory sex life after marriage.

Regarding these points, the personality developmental process in adolescence is important in the formation of positive sexual attitudes (Lee, 1986:16). The formation of positive sexual attitudes is also affected by sexual knowledge. According to the study of Lee (1990:92), the correlation between sexual knowledge and attitudes is that the more correct sexual knowledge is, the more it will lead to positive attitudes, and the more self-esteem will be influenced positively by sexual attitudes (Werner-Wilson, 1998:519).

Sexual behaviour is also influenced by culture and individual personality (Strong *et al.*, 2001:29). Rathus *et al.* (2000:11) points out that religion has been a major influence of sexual values and behaviour. Sexual attitudes and behaviour, therefore, are influenced by three factors, namely biological, psychological, and sociocultural factors (Lee & Kim, 1982:54; Miller & Fox, 1987:269; Strong *et al.*, 2001:163; Ward & Rivadeneyra, 1999:237). Sociocultural factors like religious beliefs, education and mass media have an especially strong influence on sexual attitudes and behaviour (Baumeister, 2001:105; Byer & Shainberg, 1994:20; Choi, 1999:61; Kye & Moon, 1999:138; Miller & Fox, 1987:269; Schunk, 1996:2). Reiss (quoted by Antonovsky *et al.*, 1978:261) also points out that societal changes have a major impact on sexual attitudes and behaviour.

Society's sexual attitudes and behaviour have been changed obviously by the "sexual revolution" (Baumeister 2001:16; Byer & Shainberg, 1994:18; Lee & Kim, 1982:54). Sexual attitudes have changed from the 1950s until the 1990s. Most women's sexual attitudes and behaviour were considered conservative until the 1950s. Their attitudes and behaviour changed more than those of men during the 1960s and early 1970s, and this revolution continued through the 1980s (Baumeister, 2001:101; Kelly, 1994:4). As a result, women's attitudes changed more in the direction of active sexual behaviour in the recent decades (Baumeister, 2001:17).

With the advent of the sexual revolution in the 1960s, adolescents' sexual behaviour also began to change (Byer & Shainberg, 1994:32; Strong *et al.*, 2001:167). Adolescents developed their sexual values, attitudes, and behaviour within their cultural contexts. Distinct changes in the sexual values of adolescents have occurred in most areas of the globe in recent decades, and were reflective of the increased urbanisation, industrialisation, and Western media influence (Byer & Shainberg, 1994:32; Kelly, 2001:167; Kim, 2000:1, Moon, 2000:414). Young adolescents today, therefore, are much more tolerant and open about many aspects of sexual attitudes and behaviour than previous generations. Young adolescents are now engaging in sexual relations earlier than in the past (Kelly, 2001:167), with the average age for first intercourse dropping sharply, and with as many girls as boys engaged in it (Byer & Shainberg, 1994:32; Strong *et al.*, 2001:167).

Moreover, with the present society's treatment of sex as a mere merchandise of daily life for seeking pleasure, the sexual behaviour of adults is becoming disorderly. The result of this social aspect is that adolescents become easily aroused sexually and that they display a more liberal sexual attitude and behaviour (Sim, 1999:14). They are thus affected by physical factors and social forces.

As a consequence there are more sexual freedom and sexual experiences among adolescents. Furthermore, the more sexually related experiences they have, the more sexual problems they experience.

2.6.3 Sexually related experiences of adolescents

The sexually related experiences of adolescents are mainly masturbation, sexual intercourse, teen pregnancy, abortion, STDs/AIDS, and contraception. Because adolescents experience sexual desire in accordance with an increase in sex hormones, sexual desire induces masturbation and sexual intercourse. The result of sexual intercourse may be pregnancy, which may result in abortion. To prevent unwanted pregnancy and abortion, it is necessary to use contraception. Moreover, unprotected sexual intercourse exposes adolescents to the danger of STDs and HIV infection. Because of these dangers, it is necessary to discuss masturbation, premarital intercourse, pregnancy, abortion, contraception, and STDs /HIV in the sections below.

2.6.3.1 Masturbation

Masturbation is self-stimulation of one's own genitals to create sexual pleasure. Masturbation frequency rate is much higher among males than among females (Byer & Shainberg, 1994:32; Crooks & Baur, 2002:377; Kelly, 2001:169; Lee & Kim, 1982:86). It is also higher in boys than in the older age groups (Lancet *et al.*, 1978:1085). By age 16, a majority of the adolescents practice masturbation (Halpern *et al.*, 2000:330), and by the time they have reached the end of adolescence, almost all males and approximately three out of four females had masturbated (Crooks & Baur, 2002:377). According to Leitenber *et al.* (quoted by Strong *et al.*, 2001:167) and Schwartz (quoted by Kelly, 2001:170), among adolescents who masturbate, boys do so about three times more frequently than girls. Lee and Kim (1982:91) indicate that masturbation occurs four times more frequently among

boys than girls. Kelly (2001:170) suggests that boys who masturbate do so two to three times a week on average, and girls do so once a month. Rathus *et al.* (2000:392) mentioned that 45% of boys and 15% of girls masturbate by the age of 13. In Korea, according to the study of Kim, T. (quoted by Kim, 2000:20), 72.1% of male students and 24.9% of female students have masturbated, and according to the study of Kim (2000:20), over 71% of male students and over 38% of female students have an experience of masturbation.

Heightened sexual excitability finds expression in action, feeling, and thought. As they are more quickly aroused, boys are quicker to discharge excitement through masturbation, while girls are more likely to suppress their masturbation. In their erotic fantasies, boys are more likely to dwell on specific bodily attributes, like breasts, legs, and genitals, while girls are inclined to imagine romantic situations of surrender. Nearly all adolescents struggle over suppressing or yielding to their masturbation (Juhasz, 1973:14).

Sex researchers and therapists advise that masturbation is not harmful. Masturbation is a major sexual outlet during adolescence (Crooks & Baur, 2002:377; Halpern *et al.*, 2000:330; Rathus *et al.*, 2000:400), Hong (1999:43) also maintains that masturbation is mentally profitable because it results in relaxation from stress, safe sex, indirect sexual experience, and control of sexual desires, among others. Despite this positive note, many teens still think of masturbation as shameful. Girls in particular feel guilty about their autoerotic activities (Byer & Shainberg, 1994:31; Halpern *et al.*, 2000:327; Hong, 1999:43; Rathus *et al.*, 2000:400; Sim, 1999:47; Strong *et al.*, 2001:158). It may be that ideas that originated in the late 18th century, which view sexual self-stimulation as immoral and unhealthy, still exist in today's society. Kelly (1994:31-32), however, argues that attitudes toward masturbation have gradually become more tolerant in the 20th century. On the other hand,

antimasturbation campaigns insist that body fluids (semen) must be conserved and kept in balance for the sake of physical and mental health (Byer & Shainberg, 1994:31).

As explained above, the reason for masturbating is an increase in sex hormones. Testosterone is the hormone that has the greatest direct effect on sexual behaviour. Male behaviour may be more aggressive than female behaviour, because males have substantially more testosterone than females (Baumeister, 2001:99-100). Increased sperm production causes the expression of sexual desire. As a result, males have a more favourable attitude toward sexual behaviour and sexual desire than females (Baumeister, 2001:13). The mass media, especially adult videotapes, have become avid stimulants of sexual desire and sexual intercourse (Byer & Shainberg, 1994:46; Choi, 1999:55).

2.6.3.2 Premarital sexual intercourse

One of the strongest traditional sexual standards used to be that of premarital chastity. Until recently, the predominant attitude has been that premarital intercourse was wrong on moral and religious grounds without the bond of marriage. Recent sex research has provided evidence of two major trends among Western societies: increasing rates of premarital coitus among females and increasing permissiveness in attitudes toward coitus (Antonovsky *et al.*, 1978:260). Adolescents no longer condemn premarital sex. Boys also have much more positive attitudes towards sexual intercourse than girls. There is, moreover, a growing emphasis on the importance of a loving relationship between sexual partners (Antonovsky, 1978:260; Byer & Shainberg, 1994:32; Brown *et al.*, 2002:5).

The most significant factor related to sexual intercourse among adolescents, therefore, is having a boyfriend or girlfriend (Strong *et al.*, 2001:169; Uys, 1992:27). Sexual intercourse is linked to early relationships, especially to steady dating at a young age. Steady dating

leads to a romantic relationship between partners (Baumeister, 2001:139; Brown *et al.*, 2002:5; Byer & Shainberg, 1994:32; Rathus *et al.*, 2000:406). Most adolescent couples follow a normative pattern in the sequence of their sexual behaviour - that is, the holding of hands, embracing, kissing, petting, and finally, having intercourse (Strong *et al.*, 2001:168). Touch is one of the first and most important senses, and kissing can be an intense, erotic, profound experience. The lips and mouth are generously endowed with sensitive, pleasure-producing nerve endings that make it feel good to kiss (Crooks & Baur, 2002:248). Petting refers to erotic physical contact but not coitus. According to Crooks and Baur (2002:378), many adolescents who are dating often engage in petting behaviour as an alternative to intercourse. Adolescents in Korea also have positive attitudes towards dating, and more often exhibit such sexual behaviour such as kissing, embracing, and sexual intercourse (Kim, 2000:21; Park, 1996:68). Adolescents whose friends have engaged in sexual intercourse are also more likely to engage in intercourse themselves, and the pressure sometimes comes from dating partners (Kim, 2000:66; Rathus *et al.*, 2000:404; Somers & Gleason, 2001:675).

It should be stated that adolescents also have sex with complete strangers; the most common reason for doing so being material or monetary gain (Carr *et al.*, 2001:17; Temin *et al.*, 1999:186). According to the study of Park (1988:413), the more conservative the sexual attitudes toward premarital intercourse and virginity are, the less sexual intercourse occurs. Higher-grade students and children of single parents, however, have a greater tendency to lose their virginity (Kim, 2000:20).

With reference to the issue of sexual intercourse among adolescents in Korea, Kim (2000:10) reported that 13.4% of boys and 7.0% of girls from grades 7 to 9, and 32.5% of boys and 14.15% of girls from grades 10 to 12, have experienced sexual intercourse.

According to Lee *et al.* (2003), however, 59.3% of male students and 46.6% of female students from grade 11 engaged in sexual intercourse, while the percentage of first sexual intercourse was 47.5% for 15-16 year olds, 22.8% for those under 13, and 11.5% for those over 17. It is known that adolescents from grades 8 to 10 can easily succumb to sexual temptation and are weak at controlling sexual desires. Working adolescents engage in sexual intercourse more (working boys 43.8% and girls 7.3%) than those still in school, and in fact have sex continuously (Lee *et al.*, 2003). Adolescents who have religious beliefs, however, engage less in sex because Christians are more conservative than non-Christians (Kang *et al.*, 2000:57).

In 1950 more than 25% of female teenagers in the U.S.A. have experienced sex, compared to 30-35% in 1962-1970; and 35-47% in the 1970's. This figure was slightly lower in the 1980's. Today, however, 56% of female teenagers have sexual experiences. In the case of male teenagers, in 1970 55% have experienced sex; compared to 64% in the 1970s and 73% in recent times (SIECUS, 2000). According to Baumeister (2001:47), among students, 75% of boys and 60% of girls have had intercourse, and among non-students, 79% of boys and 72% of girls have had intercourse. The average age of first intercourse is 16 for boys and 17 for girls (Brown *et al.*, 2002:5), thus, the average age at the first intercourse was 16.2 years (Olsen & Weed, 1992:369). Recently, according to Lottes (2002:81), the average age of the first intercourse is 15.8 years. According to studies by Rathus *et al.* (2000:401) and Strong *et al.* (2001:167), in 1995, 50% of American girls aged 15-19 years had already experienced sexual intercourse. Those with religious belief, however, tend to be less active sexually and more conservative in their sexual attitudes (Lancet *et al.*, 1978:1085), although this does not prevent subsequent experiences (Antonovsky *et al.*, 1978:271; Summerfield & Steinhoff, 1991:103).

The above clearly shows that the rate of sexual intercourse in adolescents is increasing both among male and female adolescents, and that the age of first intercourse is dropping. In addition, many adolescents erroneously believe that a female cannot get pregnant from her first sexual intercourse (Rathus *et al.*, 2000:394).

The differences between the two sexes in attitudes towards premarital intercourse show that girls and younger students have more conservative attitudes than boys and older students (Lancet *et al.*, 1978:1085), and the greatest differences between boys and girls seems to be largely with respect to their emotional reactions. Boys experience more positive emotional responses, such as pleasure, than girls (Baumeister, 2001:139). Girls experience negative feelings such as guilt (Baumeister, 2001:139; Kelly, 2001:168; Lee & Bae, 1997:63) and repent after having had sexual intercourse (Lee & Bae, 1997:63). Many girls also feel that it is wrong to lose their virginity (Baumeister, 2001:150), and worry about having a baby. In contrast, most boys who engage in sexual intercourse feel good, and they do not feel any responsibility for what may result from it (Lee & Kim, 1982:106; Park, 1996:12). Male students in Korea, and even those who have had sex with girls, still want to marry virgin women. Even though the rate of sexual intercourse is increasing, the current society still requires women to be virgins, but does not require it of men. The contemporary society in Korea may thus be said to have two-faced socio-sexual moral standards (Kim, 2000:20).

Adolescents may also approach their sexual activities unrealistically and without careful consideration to the risks involved, such as unwanted pregnancy and contracting STDs, including HIV infection (Rathus *et al.*, 2000:401; Werner-Wilson, 1998:519). Adolescents, especially pre-adolescents who are engaging in sexual intercourse, do not consider the possibility of pregnancy when they engage in sexual relationships (Lee & Kim, 1982:105; Strong *et al.*, 2001:171). Sexual intercourse during early adolescence furthermore leads to

negative self-concept (Haffner, 1997:9-10; Lee *et al.*, 2000a:200) and negative sexual values (Juhasz, 1973:5).

2.6.3.3 Pregnancy

According to the United Nations Educational, Scientific and Cultural Organization (UNESCO) report (2001), there were 65 conceptions per thousand women in 1998 among females aged 15-19 years. England and Wales have the highest teenage pregnancy rate in Western Europe (Lewis & Knijn, 2003:113; Slater, 2000). In England in 1998, there were over 100,000 conceptions among teenagers, of which over 8,000 were girls under the age of 16 (Monk, 2001:279). The Netherlands, Germany, and France all have significantly lower rates of teen pregnancy than the U.S.A. (Lottes, 2002:81). The Netherlands have the lowest rate of unplanned pregnancy among all Western countries (Crooks & Baur, 2002:387; Lottes, 2002:81). In 1995 the teenage pregnancy rate in the U.S.A. were about seven times that of the Netherlands, namely as 83.6 vs 12.2 (Lottes, 2002:81). The teenage pregnancy rate in the U.S.A. is more than double that of any Western industrialised country, and it also has the highest teen pregnancy rate among developed countries (Olsen *et al.*, 1991:631; Sather & Zinn, 2002:1; Slater, 2000). Ten percent of American teenage females, or a total of 1 million teenage females aged 15-19 years, become pregnant each year (Olsen *et al.*, 1991:631). On the other hand, according to the Forum for African Women Educationalists (FAWE), about 36 million girls in sub-Saharan Africa were missing from school because of pregnancy. Only 34% of girls in this region thus completed primary school in 1995 (Chilisa, 2002:21). For Korea there are no accurate reports about the rate of teenage pregnancy (Hong & Nam, 2000: 337; Nam, 2003). According to some studies, however, the rates of teenage female pregnancy are 13% (Kong *et al.*, 2000:97), 0.5% (Chang *et al.*, 2001a:924), 8.2% (Chang *et al.*, 2001b:310), and 10.8% (Anon., 2003c).

Unplanned pregnancy has very negative effects for female adolescents. They are faced with the prospect of dropping out of school and going on welfare to feed themselves and their children (Olsen *et al.*, 1991:631). In addition, early adolescent childbearing is associated with health problems. The dangerous effects of teen pregnancy are discussed below.

- **Dangers of teen pregnancy**

According to Wellings and Mitchell (quoted by Coleman & Roker, 1998:92), biologically, pregnancy in early adolescence is not in itself harmful, and well-managed pregnancies carry no higher risk in young adolescents, but in practice they are associated with a higher incidence of negative outcomes. Maternity-related complications are major causes of death among young adolescents. Because young adolescents have not completed their growth, especially height and pelvic size, they are at greater risk of obstructed labour which results when the baby cannot pass through the birth canal. Obstructed labour can lead to serious injury or death for both the mother and the infant. Typically, the younger the mother, the higher the level of risk for both the mother and child (Carr, *et al.*, 2001:41). Teen pregnancy may also cause cervix cancer (De Villers & Kruger, 2000:67; Lee & Bae, 1997:63) because of the stimulation of immature reproductive organs (Sikes, 1996a:16). Other complications during teenage pregnancy include higher risks of anaemia, toxaemia, hyper-tension; low birth weight babies, higher risks of perienatal mortality of infants and a higher incidence of spontaneous abortions in subsequent pregnancies (Wellings & Mitchell, quoted by Coleman & Roker, 1998: 92).

In addition to the above problems, pregnant young female adolescents in Korea are often not aware of the symptoms of pregnancy. As a result they unexpectedly give birth in places such as toilets, storehouses or buses. It sometimes also happens that they kill the infant after birth because of fear (Cho & Shin, 1999:524).

Teen pregnancy, thus, is mostly unexpected and unwanted. It causes mental suffering and serious economic and health problems. Pregnant teens are left agonising having to choose between abortion, childbirth, or unwanted marriage (Kong *et al.*, 2000:30; Ladipo, 1990:20).

2.6.3.4 Abortion

An unwanted pregnancy may bring about negative sentiments such as fear, anger towards the self, guilt, ambivalence, and desperation (Kelly, 2001:211; Rathus *et al.*, 2000:380).

Thoughts of abortion may be harboured. Most adolescents are of the opinion that an abortion poses medical and physical risks. There is also a strong feeling among them that abortion is wrong and emotionally damaging (Lee, E., 2000:397; Stone & Waszak, 1992:52-54) and that it can be regarded as murder (Ku, 1999:47). The reason for choosing abortion, with the associated considerable psychological distress, however, is that adolescents have to complete their studies and are often not yet financially secure (Rathus *et al.*, 2000:342). Female students who have undergone safe abortions generally show good psychological adjustment after a year (Rathus *et al.*, 2000:383). Similarly, Boggess and Bradner (2000:118) report that trends in male adolescent attitudes toward abortion are positive.

Most pregnant adolescents try to undergo an abortion. In England, about two-thirds of the approximately 8,000 pregnant girls under the age of 16 undergo abortions (Coleman & Roker, 1998:8). In the U.S.A., about 170,000 females out of a population of 25,000 million annually undergo an abortion. In Korea about 200,000 females out of a population of 4,500 millions annually undergo an abortion, which is a very high abortion rate compared to that of the U.S.A. 60% of abortions in Korea were done on adolescents below the age of 20 (Lee *et al.*, 2003). The Netherlands, in contrast, have the lowest rate of abortion. In 1995 the

teenage abortion rate in the Netherlands was 4.0, which is about seven times less than the 29.2 of the U.S.A. (Lottes, 2002:81).

Complications from an unsafe abortion also should be considered because it can have a devastating impact on adolescent girls' health and well-being (Carr *et al.*, 2001:30).

- **Dangers of abortion**

Dangers associated with abortion are infection, persistent bleeding, intestinal injury and infertility. Most cases of infection following abortions are the result of unskilled persons using non-sterile instruments and/or leaving products of conception in the uterus. Incomplete abortion (where some products of conception remain in the uterus) without infection may also occur after an induced abortion. In such a case the woman suffers from heavy or persistent bleeding and an enlarged uterus, and must be treated by surgery or vacuum aspiration. Damage to the cervix, vagina or uterus is usually caused by unqualified persons. When there is internal haemorrhage (bleeding) or intestinal injury, major surgery may be required (Ladipo, 1990:20).

According to Sadik (1998), up to 500 women die every day as a result of abortion by hazardous methods. Ladipo (1990:20) also points out that it was estimated that at least 200,000 women die each year from unskilled abortions. Infection is the most common complication seen in country hospitals in developing countries. The most complications due to unsafe abortion appear in Africa. In African countries 38% to 68% of adolescent girls sought hospital care for abortion-related complications in the 1980s and 1990s. The complications resulting from abortions are a major cause of death among adolescent girls in sub-Saharan Africa. In Nigeria, it was found that 60% of abortion-related deaths occurred among people under the age of 20 in 1995 (Carr *et al.*, 2001:30).

In the light of the mental and physical hazards of abortion, it is important to prevent unwanted pregnancy among adolescents. Sexually active adolescents must therefore consider contraception.

2.6.3.5 Contraception

The majority of sexually active adolescents do not use contraceptives consistently or effectively, especially if they have sexual intercourse for the first time (Crooks & Baur, 2002:395; Kelly, 2001:167; Moore & Rosenthal 1993:171; Rathus *et al.*, 2000:410). This is because their sexual behaviour is mostly unplanned and unprepared (Lancet *et al.*, 1978:1085). The reason for the low rate of contraceptive use among adolescents is related to a number of factors, including knowledge deficits, false beliefs, inadequate home or school-based sex education, misconception about health risks associated with some contraception methods, embarrassment over acquiring contraceptive devices, concerns about confidentiality, lack of communication with partner about contraception (Crooks & Baur, 2002:395), and believing that "it wouldn't happen to me" (Coleman & Roker, 1998:8). Moreover, younger teenagers, in particular, do not take measures to protect themselves against STDs/HIV when they begin having sexual intercourse (Rathus *et al.*, 2000:410; Strong *et al.*, 2001:170). 50% of 16 year-olds used no contraception the first time they had intercourse (Ford, quoted by Coleman & Roker, 1998:8), while 30%-50% of teenagers did not use any contraception (Kruss, quoted by Coleman & Roker, 1998:8).

The term *contraception* refers to the prevention of pregnancy. *Contraception* means that conception (fertilisation) does not take place (Theron & Grobler, 1990:9). The contraceptive methods include male and female methods. Male contraceptive methods are condoms, withdrawal and sterilisation, and female contraceptive methods include natural methods such as the calendar method, the body temperature method, the cervical mucus method and

the symptothemal method, and barrier methods such as the femidom, diaphragm and sterilisation, spermicides, and hormonal methods such as oral pills, injections, vaginal ring (IUD), subdermal implant and anti-progesterone. Below the calendar method, withdrawal, oral pill, condom, femidom, diaphragm, spermicide and emergency pill will be discussed in more detail (Rathus *et al.*, 2000:382; Theron & Grobler, 1990:17).

- **Calendar method**

According to this method a woman keeps a continuous record of her cycles for a period of 12 months. A cycle starts on the first day of menstruation and ends the day before the next menstruation. She will thus have a retrospective record which can be utilised to calculate the fertile days of the following cycle, by considering the cycle lengths of the previous 12 months. To allow for variability in the lifespan of oocytes and spermatozoa, it is generally accepted that the possible fertile period is from 10 to 20 days before commencement of the next cycle. 10 must be subtracted from the longest cycle: if the shortest cycle is 23days and the longest 30 days, the unsafe period from day 3 up to and including day 20. It is therefore obviously an unreliable and impractical method. Its failure rate is 10-30 percentage (Fathalla, 1987:6), or around 20 percent (Hyde & DeLamater, 1997:200).

- **Withdrawal (Coitus Interruptus)**

The man withdraws his penis from his partner's vagina before he has an orgasm and thus ejaculates outside the vagina. It requires no special equipment, but withdrawal must happen on time. This may be very stressful to the man. He must constantly maintain a kind of self-conscious control. Withdrawal is not a very effective contraceptive method and its failure rate is around 19 percent (Hyde & DeLamater, 1997:198; Rathus *et al.*, 2000:382).

- **The pill**

The pill contains oestrogen and a progestogene in constant quantities. It is taken daily for 21 days, followed by a pill-free or placebo period of seven days. The theoretical effectiveness of the pill approaches 100%, but its use-effectiveness is influenced by factors such as patient error, absorption defects and interaction with other medication being taken simultaneously. When woman forget to take a pill everyday, contraception will fail. Thus it is important to take the pill at approximately the same time every day. The failure rate of this method is 1–8% (Fathalla, 1987:6), or around 5 percent (Hyde & DeLamater, 1997:180).

- **The condom (male) and femidom (female)**

The condom is one of the few male methods of contraception still in wide use. If used regularly and correctly, it is much more reliable than is generally believed. The simultaneous use of spermicidal preparations renders it a highly reliable method. Mineral oil lubricants can damage condoms. The whole condom must be rolled over the erect penis before penetration. If it does not have a teat to contain the ejaculate, a space must be left at the tip for this purpose, so that sperm does not leak out backwards. After coitus, the condom must be kept on the penis by gripping it around the base of the penis during withdrawal, to prevent it from slipping off. Its failure rate is 3-15% (Fathalla, 1987:6; Hyde & DeLamater, 1997:193). The female femidom is wider than a condom and must be kept in the vagina to prevent penetration of sperm to the uterus. The failure rate of the femidom is around 21 percent (Hyde & DeLamater, 1997:195).

- **Norplant**

Norplant consists of tubes containing progestin that are surgically embedded under the skin of the woman's upper arm. It provides continuous contraceptive protection for as long as five years. Norplant is the most effective method of contraception currently available. It is

essentially 100 percent effective. It is only active for five years and failure rates go up substantially after that period (Hyde & DeLamater, 1997:187).

- **Cervical diaphragm**

A diaphragm is made of thin synthetic rubber in the form of a circular dome, with a thickened flange incorporating a metal spiral. It is placed over the cervix prior to coitus and prevents sperm deposited in the vagina from passing into the cervical canal. The external diameter of diaphragms varies from 60-90mm. A doctor or nurse has to determine the correct size needed for each woman and must instruct her on its use. A spermicide is applied along the edges and in the hollow of the dome. It must be left in position for at least eight hours after coitus. The failure rate of this method is 4-25 percent (Fathalla, 1987:6) or, according to some sources, 17-25 percentage (Hyde & DeLamater, 1997:191).

- **Spermicide**

This preparation, which is placed in the vagina, contains an ingredient which either kills spermatozoa or weakens them to such an extent that fertilisation is prevented. Spermicides must be placed high up in the vagina, no longer than 20 minutes prior to coitus. It must not be washed out for at least eight hours after coitus. An application must be inserted before each sexual intercourse. Its failure rate is 10-25 percent (Fathalla, 1987:6) or around 25 percent (Hyde & DeLamater, 1997:197).

- **Emergency pill (Emergency contraception)**

Emergency contraception is the use of a method of contraception after unprotected intercourse (Golden *et al.*, 2001:287). The emergency pill can be used to prevent pregnancy up to 72 hours after unprotected sexual intercourse (Barrett & Harper, 2000:197). Emergency pills contain hormones such as oestrogen and progestin. Two oral pills must be

taken within 72 hours, followed by a third pill 12 hours after taking the first pills (Golden *et al.*, 2001:287). "Morning-after" pills prevent implantation of a fertilised ovum in the uterus (Rathus *et al.*, 2000:371).

- **Sterilisation**

Sterilisation methods should be considered to be permanent, although they may be reversed in many cases. A vasectomy is usually carried out under local anaesthesia in 15 to 20 minutes. Female sterilisation methods prevent ova and sperm from passing through the fallopian tubes.

Among the contraceptive methods discussed above, condoms are the most popular method among sexually active adolescent boys. Condom use has significantly increased from 1991 to 1997 (Sneed *et al.*, 2001:303; Strong *et al.*, 2001:170). Carr *et al.* (2001:34) reports that condom use has increased by a range of 1 to 10 percentage points. Along with condoms, the pill is also gaining popularity among sexually active adolescent girls (Strong *et al.*, 2001:170). Still, less than half of sexually active boys and only about one-third of sexually active girls use contraceptives each time they have intercourse (Brown *et al.*, 2002:6). Although girls take oral pills, the pill is not effective when used carelessly, such as when a pill is missed or not taken everyday. According to Rathus *et al.* (2000:410), about 1 in 5 sexually active adolescents rely on withdrawal or the rhythm method during their first intercourse. Despite the high failure rates of these methods, most sexually active adolescents in Israel prefer withdrawal as a contraceptive method. Lancet *et al.* (1978:1085) reports that the extremely low rate of pregnancies compared to the number of adolescents engaging in sexual intercourse, may likely be ascribed to the use of withdrawal as a contraceptive method.

Condoms and femidoms, however, are the only means of protection against HIV infection. Condom use has thus increased since the discovery of HIV (Brown *et al.*, 2002:6). According to Rathus *et al.* (2000:411), the reason for condom use among sexually active adolescents is fear of HIV infection, which is a bigger threat to them than an unwanted pregnancy.

Most adolescents, do not use any form of contraception when they engage in sexual relations for the first time. Young adolescents are still engaging in sexual relations without contraception, as mentioned above. There are clearly a number of implications of not using contraception. Firstly, there is a possibility of conceiving an unplanned pregnancy, and secondly, the transmission of sexually transmitted diseases, including HIV, is a possibility (Coleman & Roker, 1998:8; Rathus *et al.*, 2000:401; Werner-Wilson, 1998:519).

2.6.3.6 Sexually transmitted infections (STDs)

STDs are most prevalent in teenagers who are sexually active. Most adolescents, however, do not recognise the risk of infection from STDs when they have sexual intercourse (Blanchett, 2000:336; Lichtenstein, 2000:113) because adolescents are ignorant of STDs, including HIV transmission (Bhattacharya *et al.*, 2000:203). Every year three million teenagers – about one out of every four sexually active teens – contract an STD. Some STDs, including gonorrhoea and Chlamydia, are more common among teenagers than among older men and women. The rapid spread of STDs among adolescents is a more recent phenomenon. Over the past several years, thus, STDs have become more prevalent among adolescents in Asia, including Korea and Russia, under the influence of the Western media (Amirkhanian *et al.*, 2001:106). According to Gerbase *et al.* (1998:10), about one million people are infected with an STD everyday, in other words, 10 people are infected every second. Sadik (1998) reports that 1 out of 20 teenagers contracts a sexually transmitted

disease every year. Young adolescents are more vulnerable to infection. Adolescent girls who have sex at a very early age, for example, are more biologically susceptible to a number of STDs than adult women (Carr *et al.*, 2001:15).

In addition to unplanned pregnancies, teenagers are therefore also in danger of contracting STDs. About 2.5 million teenagers contract STDs each year in the U.S.A. The extent to which teenagers are sexually active is also the extent to which they are vulnerable to the AIDS virus (Olsen & Joseph, 1992:369). In Korea, about 1.5 % of teenagers in Korea have been infected by STDs (Anon., 2003a).

A reason for STD infections might be that adolescents are unaware of the period of STD incubation when they have sex. In men, the symptoms usually appear 3 days after gonorrhoea infection, and 3 weeks after syphilis infection. According to Gerbase *et al.* (1998:10) and De Villers and Kruger (2000:69), the most common symptoms of STDs are:

- Abnormal discharge from the penis and anus in men or from the vagina in women
- Burning pain when urinating
- Swollen glands in the groin area with a fever
- Pain during sex
- General rashes
- Blisters and sores in or outside the genitals

However, some STDs cause no or only mild symptoms, especially non-gonococcus urethritis. As a result many people do not even realise that they are infected (Gerbase *et al.*, 998:10). In women, moreover, STDs are less visible. Half of all infected women do not know that they are infected because they do not notice the symptoms or they consider the symptoms normal (Gerbase *et al.*, 1998:10; Paulson *et al.*, 1999:7). They therefore miss the

opportunity for treatment. When untreated, STDs may damage the reproductive organs of both males and females and cause serious complications, such as chronic abdominal pain, infertility, ectopic pregnancy and cancer of the cervix in women (Paulson *et al.*, 1999:7). The latter causes severe damage as a potentially life-threatening condition, resulting in heart and brain damage and even death. Most STDs can be cured (De Villers & Kruger, 2000:69; Gerbase *et al.*, 1998:10; Paulson *et al.*, 1999:7). Syphilis can be transmitted through blood and from a mother to her child, and may be passed on to a developing baby in the womb, causing premature birth, congenital syphilis, and even the death of the baby (Gerbase *et al.*, 1998:10). Syphilis can be treated by common antibiotics.

HIV, however, is a bigger problem because it is a viral disease for which there currently is no cure (De Villers & Kruger, 2000:68).

2.6.3.7 HIV/AIDS

HIV stands for *Human Immune Deficiency Virus*, and *AIDS* stands for *Acquired Immune Deficiency Syndrome*. A person has AIDS when the virus has done enough damage to the immune system to allow infections and cancers to develop (De Villers & Kruger, 2000:71).

The spread of HIV among adolescents is a more recent phenomenon. The Center for Disease Control (quoted by Brown *et al.*, 2002:6) estimates that half of all new HIV infections occur among people younger than 25, and many of these young adults were likely infected as teenagers through sexual contact, and that HIV infection is increasing rapidly among young teenagers. Female adolescents, especially, are more likely to have an HIV infection than male adolescents because they have sexual intercourse with older men who are infected by HIV (Carr *et al.*, 2001:18; Schwarthlander *et al.*, 1998:21).

In 1998, almost 6 million people were infected with HIV, including over half a million children (Piot, 1998:5). Most countries have reported cases of HIV infection. The region

most seriously afflicted by Aids is Africa. The HIV incidence rate in South Africa is the highest in the world (Mann, 1987:7; Temin *et al.*, 1999:186; Varga & Shongwe, 1999:19). Asmal (as quoted by Jewkes, 2000:1) notes that over 3 million people in South Africa have HIV infection. HIV infection levels are often higher among female than male adolescents. One of the reasons for this is that their partners are likely to be older men rather than their own age (Carr *et al.*, 2001:4). Over the past several years, however, HIV infection has become more prevalent among adolescents in Asia, including Korea and Russia (Amirkhanian *et al.*, 2001:106). HIV has only recently appeared in Asia and Russia, compared to other countries where HIV infection is already on the increase.

In Russia, there has been a sharp increase in the prevalence of HIV among adolescents over the past several years. Until 1995, only 1,062 HIV infections had been reported throughout Russia. However, the cumulative total had reached 83,000 by November 2000. This is caused by unprotected intercourse. Increased international contact and greater opportunities for social and sexual freedom have changed young Russians' sexual attitudes, reflecting liberalised values more typical of the West (Amirkhanian *et al.*, 2001).

In Korea, the incidence of HIV infection has also gradually increased among adolescents (Kong *et al.*, 2002:2; Lee *et al.*, 2003). It is mainly transferred through sexual intercourse between adolescent girls and older men who are HIV positive. There is no accurate record of HIV infected adolescent girls. However, there is an increase in runaway girls who have left their homes due to family problems. They are more likely to contract HIV because they practice prostitution for money. According to the Busan Newspaper (Anon., 2002), National Institute of Health in Korea reported that HIV infection increased rapidly in the year 2001, with persons newly infected with HIV totalling 333. The total number of HIV/AIDS cases amounts to 1,613. The nightly news announced in January 2003, though, that the number of HIV infection cases may be over 2,000.

Another cause for the spreading of HIV infection may be that people do not display any symptoms of the infection for many years (De Villers & Kruger, 2000:80; Strong *et al.*, 2001:524; Uys, 1992:255). The asymptomatic period is the time between HIV infection and the beginning of symptoms related to AIDS. This period varies from person to person; it may be as short as 6 months or as long as 10 years or more (Chin, 1990:4; De Villers & Kruger, 2000:80). Those who are infected by HIV may be sexually active during this period, and can transmit the HI virus to their partners.

De Villers and Kruger (2000:79, 81) explains that HIV appears in body fluids like blood, semen, vaginal fluids and breast milk. HIV is also transmitted from person to person in 3 major ways, namely, sexual transmission, blood and blood products, and from an infected mother to her baby. Examples of these ways of transmission are the following:

- HIV can be passed on to another person during sex.
- Pregnant women can pass the HIV on to their unborn baby.
- HIV can be passed to the baby by breast milk (Schwarthlander *et al.*, 1998:20).
- HIV is carried in the blood.
- Drug users can pass the HIV to other drug users if they share needles.
- The risk of getting HIV/STDs increases if you have many sexual partners.
- During menstruation the risk of getting the HIV through unprotected sex is higher.
- HIV may be transmitted by sharing razors with someone who has HIV/AIDS.
- Any practice which allows the penetration of the virus from these fluids through the skin or mucous membranes and into the bloodstream of another person can cause HIV infection.
- The skin normally is a barrier to this type of penetration, but this barrier can be broken.
- Breaks in the skin include such minor things as cuts, abrasions, sores and ulcers.

- Deep wet kissing holds a very low risk, but the risk increases if there are cuts or abrasions in the mouth.

Testing of blood for HIV antibodies is the only way to know whether a person has HIV. AIDS is the final and most severe phase of HIV infection and leads to death. The obvious signs and symptoms are (De Villers & Kruger, 2000:83):

- Recent, unexplained weight loss.
- Fever for more than one month.
- Diarrhoea for more than one month.
- Genital or anal ulcers for more than one month.
- Cough for more than one month.
- Nerve complaints.
- Enlarged lymph nodes.
- Skin infections that are severe or recur.

De Villers and Kruger (2000:85) describes major and minor HIV symptoms:

- Major symptoms:

- Fever for longer than a month.
- Weight loss of more than 10% of body mass.
- Running tummy (diarrhoea) for longer than one month.
- Persistent severe fatigue/tiredness.

- Minor symptoms:

- Persistent cough for longer than one month.
- Skin irritation (itchy dermatitis).

- STD (recurrent herpes zoster/shingles).
- Fungus infections in mouth and throat (Thrush/Oral Candidacies).
- Ulcers/blisters (Chronic ulcerative herpes simplex).
- Swollen lymph glands.

According to Tikoo (1996:77), ninety percent of reported AIDS cases involve people below the age of 50, and more than two thirds of these persons are between 20 and 40 years of age. Given HIV's incubation period of up to 10 years, it seems likely that these people were infected as teenagers. In most countries, more than half of sexually experienced adolescents believe that they have little or no risk of getting AIDS, because adolescents may not be aware that their partners' sexual history may put them at risk or that their partners might have other partners (Carr *et al.*, 2001:22-23).

It is, however, important to know that the HI virus is not transmitted by touch, shaking hands, giving hugs, coughing and sneezing, shared utensils and glasses, food, swimming pools, towels, toilet seats, pets, mosquitoes and other insects, baths or showers and dry kissing (De Villers and Kruger, 2000:79, 81). It is not necessary, therefore, to be afraid of infection through contact with a person who has HIV infection and AIDS.

Therefore, although sexual activity among adolescents is becoming more prevalent, the consequences of lack of sexual knowledge can be serious and traumatic. Unplanned pregnancies are on the increase, and STDs, including HIV/AIDS, are a threat to all who engage in risky sexual behaviour. Yet basic societal norms regarding sexuality have not changed to meet the challenges and demands adolescents face. Hence, educational interventions are important. Furthermore, comprehensive and early sexuality education

programmes should be encouraged (Lancet *et al.*, 1978:1083). The next section will highlight what is necessary for proper sexuality education.

2.7 SEXUALITY EDUCATION FOR ADOLESCENTS

Education can be planned to positively change people's lives (Park, 1996:8). Sexuality education is different from other education, because sexuality education should result in changing attitudes and behaviour, based on knowledge and information. Sexuality education can help people understand their sexuality and make them aware of the dangers of sex, which can ultimately assist them in their decision-making (Kelly, 2001:155; Sikes, 1996b). Mertens and Carael (1998:3) suggest that comprehensive and early sexuality education should be made available to adolescents.

Sexuality education is sometimes used synonymous with the term *sex education*. These terms will be analysed below, in order to establish which term is better suited for the current purposes.

2.7.1 Consideration of the terms *sexuality education* and *sex education*

The term *sex education* has been used until recently, and has sometimes been used synonymous with *sexuality education*. Gourlay (1995:43), however, suggests that sexuality education is something distinct from sex education. The reason is that, the term *sex* generally implies the biological difference between two sexes and sexual activities, and as a result sex education was viewed as an aspect of the solution to many problems affecting society (Anon., 2003b). The term *sexuality* has been used since the 19th century, and it implies sex and gender. Moreover, sexuality encompasses not only sexual behaviour, but also various emotional and cultural factors of human sexual attitudes with feelings of

masculinity or femininity. Therefore, sexuality should be understood as integrated aspects through biological and emotional factors, and social norms (Park, 1996:4).

Adolescents have a natural curiosity about and interest in the opposite sex, as a result of their sexuality development, and they consequently experience feelings of love and of being in love. Eventually they can enter into marriage with someone they love and stay married. According to this explanation sexuality should be seen as a process in human life, and as a process in the formation of human personality (Park, 1996:9). Therefore sexuality education is required rather than sex education. Gourlay (1995:43) and Michel *et al.*, (2000:45) insist that sexuality education needs to be integrated with biological, emotional, and social health programmes. Consequently this study will focus on sexuality education.

2.7.2 The concept sexuality education

Sexuality education is defined as "education to teach social norms with scientific knowledge of sexuality, that is, not only biological functions and knowledge but also the formation of healthy sexual values" (Chung, 1998:3). In addition of that definition, Gunderson and McCary (1980) emphasise the responsibility of sexual attitudes and behaviour. Lee, S. (2000:83) defines sexuality education as "a comprehensive education for the understanding of sexual characteristics of males and females so that they can have good relationships with the other sex". Sexuality education, therefore, is the process of acquiring information and forming attitudes and beliefs about sex, sexual identity, relationships and intimacy.

Sexuality education can also guide adolescents to find harmony in three areas: knowledge (cognitive area), emotion (affective area), and behaviour and practice (behaviour area), and to make them healthy social human beings with a healthy lifestyle. For adolescents to develop into healthy social human beings, interpersonal communications where they can talk openly and healthy relationships are necessary. Society has therefore realised that it is

important to provide sexuality education in schools for adolescents to have greater sexual awareness and healthy personalities (Lee, S., 2000:83). In 1909, the National Society for the Scientific Study of Education in the U.S.A indicated that adolescents need accurate sexuality education (UNESCO, 1965:79). This is a further motivation for this study to discuss the purpose of sexuality education for adolescents who are reaching sexual maturation.

2.7.3 Purpose of sexuality education

Adolescents may be sexually maturing, but their sexual behaviour is still limited by social norms, and by the delayed age of marriage because of increased study periods. Such social limitation on sexual behaviour results in unhealthy sexual activities among adolescents, who nevertheless experience sexual desires. Adolescents in all countries also have more and more access to sexuality information via the mass media or the Internet, which results in rapid changes in lifestyles (Jou *et al.*, 2003:47; Kelly, 2001:167). The overwhelming amount of sexual information has reinforced sexual activity among adolescents. Sexual activity is common among every race, religion and culture. Many people also have unprotected sex with several partners, and this has been led to an increase in problems such as pregnancy, abortion, STDs and HIV infection. (Schwarthlander *et al.*, 1998:20-21). Because adolescents have face risks of teenage pregnancy, STDs and HIV/AIDS, schools are now considering and implementing proper sexuality education for adolescents.

The purpose of sexuality education, therefore, is to help adolescents not only acquire biological knowledge but also proper knowledge according to sexuality development. Education can also protect people from sexual risks and enable them to make responsible decisions and to form healthy sexual attitudes and personalities (Cho *et al.*, 1996:159). Sexuality educational programmes must thus involve the provision of information on the

biological aspects of sexuality, and the creation of opportunities to explore the broader issues around sociality, morality, responsibility, and love (Michel *et al.*, 2000:45).

For sexuality education to achieve its goal, students must firstly have an awareness of the self. Michel *et al.* (2000:32) argue that "self-awareness is self-knowledge." In fact, students with fairly positive self-awareness have a tendency to respond favourably to new challenges, and towards increased self-esteem and values (Hamachek, 1995:335). Self-awareness is the cognitive part of self-perception, while self-esteem is the affective dimension of self-perception (Hamachek, 1995:336).

Self-awareness incorporates the understanding of responsibility and accountability. Therefore, self-awareness is important to develop self-management (Michel *et al.*, 2000:32), and is an expression of the way how to think about one self (Hamachek, 1995:336). The importance of self-esteem is feeling good about one self. A student with positive self-esteem is more confident in making decisions (Michel *et al.*, 2000:34). Self-esteem, thus, is the evaluative component of our self-perceptions and is commonly referred to as personality (Hamachek, 1995:327).

Sexuality education for adolescents, especially young adolescents, is therefore important because they are still forming self-awareness and self-esteem. They are also in a transitional period towards becoming an adult, and in a stage of identity versus role confusion. Sexuality education should also be aimed at teaching adolescents of different ages about sexual behaviour, sexual knowledge, and intriguing sexual subjects in an age-appropriate manner (Hyde & DeLamater, 1997:582; Kong *et al.*, 2000:184; Schulz & Williams, 1969:28-38).

Furthermore, SIECUS (as quoted by Hyde & DeLamater, 1997:582) suggests that the goals of comprehensive sexuality education should be:

- To provide accurate information about human sexuality: growth and development, anatomy and function of the reproductive system, masturbation, pregnancy, abortion, contraception, STDs and HIV/AIDS, and sexual abuse.
- To provide an opportunity for students to develop their own values, attitudes and beliefs about sexuality: assess sexual attitudes in order to develop own values, and increase self-esteem.
- To help students develop relationships and interpersonal skills: develop insights concerning relationships with members of both genders and interpersonal skills, including communication, decision-making, assertiveness, peer refusal skills, and the ability to create satisfying relationships.
- To help students exercise responsibility regarding sexual relationships, including addressing abstinence, and encouraging the use of contraceptive methods for students who are engaged in sexual intercourse to prevent unwanted pregnancies and STDs, including HIV infection.

Hence, in consideration of the purpose of the sexuality education, the sexuality education programme should provide comprehensive sexuality education to students. This education should facilitate the exploration and increase of self-esteem, promote awareness of responsible sexual behaviour, including birth control methods, safe sexual activities, sexual decision-making, and sexual communication, and help decrease unwanted pregnancy, sexual aggression and sexual encounters. According to Byer and Shainberg (1994:36), comprehensive sexuality education implies the educational process as a lifelong one that encompasses not only gaining information about sexuality but also forming attitudes and

learning about development, relationships, affection, gender roles, feelings, and all other aspects of being a sexual human being. It emphasises the need to give young adolescents the skills they will need to communicate well and make healthy, responsible choices.

2.7.4 The importance of and different approaches to sexuality education

Cho *et al.* (1996:161) describe sexuality education as important because it can provide three educational aspects, namely regular, preventive and treatable education. Regular education can be offered systematically according to human sexuality development, whereas the purpose of preventive education is to prevent the acquisition of distorted sexual knowledge and resultant sexual problems, and the purpose of treatable education is to help people maintain a healthy lifestyle by solving their sexual problems.

In addition, sexuality education, together with the home, school and society, must form an integration of informal and formal education. The home should be the primary source of sexuality education, and parents are primarily responsible for sexuality education (EE, 1971:207), because parents are children's educators and models of identification. Children's positive sexual development is dependent on their parents giving them proper sexual advice and education, beginning at birth and continuing until young adulthood (Chung, 1998:103; Lee, S., 2000:83; Van Rooyen & Ngwenya, 1997:32). Today most parents, however, is incapable of giving systematic sexuality education to their children, and sex-related discussions are also frowned upon due to cultural norms about sexual issues (Fisher, 1987:481-482; Summerfield & Steinhoff, 1991:101). Most adolescents also feel unable or unwilling to talk to their parents about embarrassing issues such as sex and relationships. Sexuality education, therefore, cannot be expected to be provided at home (Kye, 1996:46; Sikes, 1996b). Most parents say that they would like schools to be the main source of

information for adolescents on sexual matters (Coleman & Roker, 1998:14). School should thus become a prime location for sexuality education.

Schools, unlike the home and society, are able to educate adolescents systematically and scientifically regarding sex to prevent them from having distorted sexual knowledge and values. Association with NGOs, the mass-media, counselling centres and medical support centres are also important because these can offer valuable assistance in the education process, as well as basic knowledge regarding treatment.

The approach to sexuality education can differ according to the national situation and traditional sexual culture (Kong *et al.*, 2000:35). Traditional sexual cultures in the world can be divided into three aspects, namely liberal sexual culture, conservative sexual culture through Confucianism, and man-centred sexual culture. The sexual culture of advanced countries, such as the U.S.A., the Netherlands and Sweden, is more much liberal than that of other countries. However, the United Kingdom, which is an advanced county, has a more conservative sexual culture than other advanced countries. Sexual culture which has been influenced by Confucianism is very conservative, as in Korea and China. Man-centred sexual culture is found in countries in Africa, where a man has several wives and where a man has power over a woman. In developed countries adolescents have experienced more serious sexual problems and from a younger age than is the case in developing countries. This may be ascribed to the liberal and free sexual attitudes in developed countries. As adolescents' sexual problems have become social problems, the, home, school, and society need to be concerned with the necessity of sexuality education for the adolescents. Sexuality education is therefore included in the school curriculum with systematic guidance, and the course is offered whenever it is needed (Anon., 2003c; Monk, 2001; Valk, 2000).

Koreans and Chinese, under the influence of Confucianism, are still not able to openly discuss sexual issues and sexuality education, even though adolescents' sexual problems are increasing. However, in response to the serious increase of adolescents' sexual problems, sexuality education was also started in these countries, although not like the systematic sexuality education in advanced countries. Because parents tend to avoid talking about sex with their children (Summerfield & Steinhoff, 1991:104), it is not viable to expect sexuality education to take place at home. The school should therefore be in charge of sexuality education for adolescents, but sexuality education in schools has not been of a high standard, due to unskilled sexuality educators and a lack of sexuality education material (Kong *et al.*, 2000:33).

Sexual culture and problems in Africa are due to the irresponsibility of men's sexual behaviour and economic indigence. This has led to problems like adolescent pregnancy, abortion and STDs, including HIV/AIDS. Moreover, many black people lack formal educational, and still depend on witchcraft and traditional healers. Young adolescents in Nigeria, for example, go to traditional healers when they have contracted sex-related infections, and counsel with traditional healers (Temin *et al.*, 1999:186). The reason is that the symptoms of the disease are often interpreted as a form of poisoning inflicted by witches (Delius & Walker, 2002:9).

Thus, although all countries in the world are affected by adolescents' sexual problems, most developing and undeveloped countries do not actively practice sexuality education, because of the inadequacy or limited scope of the sexuality education programme (Piot, 1998:5). In many advanced countries systematic sexuality education has been offered from an earlier stage, in response to the increase in adolescents' sexual problems. This section will focus on the sexuality education programmes for adolescents in 3 advanced countries, namely the

U.S.A., the United Kingdom and the Netherlands, and in two 2 developing countries, namely South Africa and Korea. The reason for choosing these 5 countries are as follows:

- The U.S.A. experiences the most serious adolescent sexual problems, such as teen pregnancy, abortion, and teenage childbirths among advanced countries (Sather & Zinn, 2002:1).
- The United Kingdom experiences the highest rate of pregnancy and abortion of all European countries (Lewis & Knijn, 2003:113; Slater, 2000).
- The Netherlands experiences the lowest rate of teenage pregnancy in all European countries (Crooks & Baur, 2002:387; Lottes, 2002:81).
- The highest prevalence of HIV/AIDS and complications of abortion are found in Africa (Asmal, quoted by Jewkes, 2000:1; Temin *et al.*,1999:186). South Africa, as a developing country in Africa, is trying to actively develop a sexuality education programme to prevent HIV infection and teen pregnancy.
- As the focus of this study is on the situation in Korea, the issue of sexuality education in Korea, including realities and problems of sexuality education, will also be discussed here.

2.7.4.1 Sexuality education in the U.S.A.

The U.S.A. has the highest rates of teen pregnancy and abortion and the lowest age for early sexual intercourse in the world (Worley, 1999). The sexual culture in the U.S.A. involves a liberal expression of sexuality. In addition, today's young adolescents learn about sex from television, movies and music videos, and are left with an unrealistic view of sexual relationships and their consequences. Adolescents are also led to think that oral sex is safe and not actually sex at all. Engaging in oral sex, however, can lead to the contraction of STDs, and young adolescents especially are at high risk (NCPCF, 2001). This situation of a

high prevalence of teenage pregnancy and STDs, including HIV/AIDS, presents a crisis which necessitates sexuality education (Chung, 1998:14). Thus, most adults support sexuality education in schools, especially middle and high schools. This support may stem from the broad recognition that teenage pregnancy and STDs, including HIV, are major problems in this country and that schools can help reduce them (Kirby, 2000:72). American sexuality education has improved over the years and a new sexuality education programme is being created to accommodate new sexual issues.

The first programme of sexuality education was a biologically based programme. This programme was meant to reduce the rates of teenage pregnancy and the incidence of sexually transmitted disease among adolescents. Most sexuality education programmes emphasised the biological aspects of puberty and reproduction. The programme worked on the assumption that if young people had more knowledge about sex, pregnancy and birth control, they would avoid unprotected sexual intercourse. However, it did not have a significant effect on their behaviour (Olsen & Weed, 1992:369). As it eventually became clear, knowledge in itself was insufficient to prevent unprotected intercourse or pregnancy (Kelly, 2001:217). It is necessary to point out that the content and length of sexuality education programmes vary widely (Rathus *et al.*, 2000:393). On the other hand, sexually active adolescents required education in the use of pregnancy prevention measures (i.e., contraceptives). This approach was that such programmes either directly or indirectly result in an increase in sexual behaviour. Proponents (Zabin *et al.*, quoted by Olsen & Weed, 1992:369) of the contraceptive approach responded by citing a Johns Hopkins University study of the effectiveness of school-based health clinics. The programme led to an increase in contraceptive use, and a significant reduction in pregnancy rates (Olsen & Weed, 1992:369). However, the rate of adolescents' sexual intercourse was not decreased.

In an effort to rectify this problem, other sexuality education programmes were introduced, which were known as abstinence-only programmes. As the name implies, abstinence-only programmes follow an abstinence approach to sexuality education (Kelly, 2001:217). These programmes emphasise abstinence as the only appropriate choice for adolescents. The abstinence-only programmes increased teenage knowledge and changed attitudes and values to favour abstinence, with a brief discussion about condoms or contraceptives which focused on the fallibility of these methods. The themes of the programme are *Values and Choices*, *Teen Aid*, *Sex Respect*, *Is Just Say No Enough?*, *Success Express*, *FACTS*, and *Wait (Why Am I Tempted?)*. Some abstinence-only programmes entail only 1-2 sessions, while others involve 15-20 sessions, and yet others are curriculum-based courses.

The programmes are expected to delay the onset of sexual intercourse. However, most studies have found that the abstinence-only programme is not consistent or does not make a significant impact in delaying intercourse (Carrera *et al.*, 2000:41; Kirby, 2000:73; Sather & Zinn, 2002:12). Some programmes such as "The Values and Choices" and "Sex Respect", emphasise the need for young people to understand and clarify their own values and to learn the decision-making skills that would lead towards more responsible sexual behaviour and relationships, including information on the risks of premarital sex and the benefits of sexual abstinence (Kelly, 1994:36). This has become known more as a comprehensive sexuality education programme. Evaluations of such programmes produced mixed results, but again it did not seem to lead to significant reductions in sexual risk-taking behaviour (Kirby, 2000:73).

Most adults, thus, believe that schools should teach effective methods of protection against pregnancy and prevention of STDs, including HIV, and schools should also discuss condoms and other contraceptives in a balanced and medically accurate manner. Such

programmes are often called abstinence-plus programmes (Carrera *et al.*, 2000:41; Kirby, 2000:72).

Abstinence-plus programmes emphasise sexuality and HIV education. These programmes include a wide variety of programmes, such as sexuality education and HIV/AIDS education taught during regular school classes, on school campuses after school, or in homeless shelters and detention centres for high-risk youth. Abstinence-plus programmes reflect the considerable creativity and diversity of the agencies implementing them (Kirby, 2000:73). Some abstinence-plus programmes last 1 or 2 weeks, while others may last for 15-20 sessions. The themes of programmes are *Worth the Wait Reducing the Risk*, *Safer Choices*, *Be proud! Be responsible!*, and *Becoming a Responsible Teen.*

In 1997, the *Worth the Wait* programme was implemented in the Temple Independent School District located in Central Texas. The *Worth the Wait* programme was developed by Scott and White health care professionals, with input from teachers, attorneys, and a child psychologist. The programme covers the medical, social, legal, and economic consequences of premature sexual activity, including reproductive anatomy, STDs (including HIV, human papillomaviurs, herpes, and bacterial infections), teen pregnancy and sexual abuse. The one-to-two-week student programme is presented to grades six, seven and eight by trained teachers in participating school districts. They use materials as the *Worth the Wait* slide programme entitled *Teens and Sex* and *What are the Effects* Discussion for the ramifications of adolescent sexual activity is followed after finishing the presentation. *Worth the Wait*, developed by the Scott and White Sex Education Program, has received positive feedback from school districts, political leaders, students, teachers, parents, and the community (Henderson, 2000:17-18). From this, adolescents learned not to hasten the onset of intercourse, and they do not increase their rate of intercourse or their number of sexual

partners. Adolescents have also increasingly been using condoms or other contraceptives, thereby reduced their sexual risk-taking behaviour for lengthy periods of time (Kirby, 2000:73). *Reducing the Risk* is a 16-session curriculum for preventing pregnancy and STDs/HIV. Its central message is that youth should avoid unprotected sex and that abstinence is the safest approach, but if young people have sex, they should always use condoms or other forms of contraception. The curriculum has been taught and evaluated independently in different parts of the country and found to either delay the onset of intercourse, increase the use of condoms or other contraception, or reduce the frequency of unprotected sex for 18 months (Kirby, 2000:73). Safer Choices is a 20-session curriculum designed for two successive years. It emphasises that abstinence is the safest method for avoiding pregnancy and STDs/HIV and that the use of condoms is safer than unprotected sex. Research data from the schools in two states where the curriculum was implemented show that the programme both increased condom use and reduced unprotected sex over a 31-month period. (Kirby, 2000:73). Finally, both *Be Proud! Be Responsible!*, and *Becoming a Responsible Teen* are HIV prevention curricula designed for higher-risk youth. Both emphasise abstinence and condom use, and studies show that both have succeeded in delaying the onset of intercourse, decreasing the frequency of sex, increasing condom use, or decreasing the frequency of unprotected sex over 12-month periods (Kirby, 2000:74).

Thus, adolescents do not rush the onset of intercourse, and do not increase the rate of intercourse and increase the number of their sexual partners. Adolescents have also begun to use condoms or other contraceptives more frequently, thereby reducing sexual risk-taking behaviour for lengthy periods of time (Corcoran *et al.*, 1997:560; Henderson, 2000:17-18; Kirby, 2000:73-74).

From the above it is clear that the effects of abstinence-plus programmes as HIV and teen pregnancy prevention programmes are successful in establishing contraceptive use and lowering pregnancy rates by positively changing behaviour. Furthermore, the programmes indicate that sexuality education is needed over a long term and on a continuous basis.

2.7.4.2 Sexuality education in the United Kingdom

The United Kingdom has the highest rate of teenage pregnancy in Europe. The rate of teen pregnancy in that country is around 40 per 1000 girls aged 15-19, compared to the slightly more than 4 per 1000 girls of the same age in the Netherlands. (Walker, 2002). According to Slater (2000), lack of sexuality education is an important contributory factor in individuals getting pregnant, as is a lack of information about contraceptive use and embarrassment about discussing contraception with a partner. Parents may also choose to withdraw their children from sexuality education (Monk, 2001:272), because many parents in the United Kingdom regard sex as "dirty" because of their traditional moralism (Walker, 2002). Consequently they also find it difficult to talk about sex. Corresponding to this moralism, the curriculum chiefly focuses on the reproductive system and how the foetus develops in the uterus, along with the biological and emotional changes that take place during adolescence (Slater, 2000). It is obvious that this sexuality education was ineffective, in response to which there has been a considerable change in the contents of sexuality education in the U.K. (Coleman & Roker, 1998:14). The responsibility for sexuality education clearly lies with school governors, church leaders and teachers, and the new provisions required new guidance, with a move away from the traditional moralistic approach (Monk, 2001:271-291; Slater, 2000). This new guidance for sex education is the *Learning and Skills Act 2000*. The Learning and Skills Act 2000 guidance focuses on sex and relationship education. The guidance emphasises the reduction of the rate of teenage pregnancies and incidences of sexually transmitted infections, including HIV/AIDS, and

takes an uncompromising position on contraception. It particularly provides information on contraception, condom use and safer sex behaviour, with the contents of biological, emotional and moral development (Monk, 2001:276). It also explains the importance of marriage, family life, stable and loving relationships, respect, love and care.

It is also the case that some sexuality educators lack self-confidence and knowledge, which results in ineffective teaching. Students are also shy when the conversation shifts to sexual matters. The Teacher Training Agency, together with relationship education and Personal, Social and Health Education (PSHE), recognises the importance of the training of teachers who provide sexuality education, because teachers are not entitled or able to offer the same degree of confidentiality. Therefore, *Exploring the Health Needs of Young People* was published in 1995, to emphasise that the educator's training and attitude towards sexuality education are very important to effective sexuality education (Kong *et al.*, 2000:47).

Recently, many parents and schools agree that a sexuality education programme in schools should focus on HIV/AIDS and unwanted pregnancies (Kong *et al.*, 2000:47), with pragmatic information and a predominantly skills-based sexuality education curriculum. Still, many areas of sexuality education continue to be controversial (Coleman & Roker, 1998:14).

Hence, the approach of sexuality education in the United Kingdom has shifted from an emphasis on biological aspects to responsibility towards sexual decisions and behaviour, with pragmatic information. Sexuality education has furthermore been a part of school curricula in order to provide sexuality education for all students. The educator's training and attitudes towards sexuality education have a very important influence on the effectiveness of sexuality education.

2.7.4.3 Sexuality education in the Netherlands

The Netherlands deserves attention in this study because of its significantly lower rates of unplanned pregnancy, abortion, and STDs than, for instance, the U.S.A., and because it has the lowest teenage pregnancy rate in Europe (4 per 1,000 girls aged 15-19) (Lloyd-Roberts, 2000; Lottes, 2002:81; Valk, 2000; Walker, 2002). In addition, the average age of first sexual intercourse of adolescents is higher (17.7 years) than in the U.S.A. (15.8 years) (Lottes, 2002:81; Valk, 2000). The government of the Netherlands has always accepted the fact that education was better than denial. Since 1993, the government has stressed that schools should aim to give students the skills to make their own decisions regarding health, and particularly sexuality. Reinders, who revised textbook, argues that "decision-making skills are very important" (Valk, 2000). Therefore, the curriculum of adolescent sexual health in this country focuses on values, responsibility and respect, as well as on biological aspects of reproduction. Some schools use this textbook with a video, a teacher's manual and a student magazine included.

There is no attempt to motivate the behaviour of teenagers through a collective effort to demand abstinence. Thus, the goal is not to prevent adolescents from having sex but to educate and empower them to make responsible decisions. Government and the general society also provide accurate information and confidential contraceptive services to adolescents. Teenagers do not have to feel guilty or ashamed of using contraceptives, and sexually active adolescents use more effective contraception (Lottes, 2002:80). Thus, teenagers say it is practically impossible not to know about the proper use of contraceptives, the dangers of STDs and the basics of forming loving sexual relationships. As a result, in the Netherlands teenagers feel that they have much more control over their own sexual behaviour than teens in most other countries (Bagnall, 2002).

According to Lottes (2002:81) and Valk (2000), the Netherlands tries to teach responsibility in sexual decision-making as the basis for their sexual health programmes, and allows an open discussion about sexual issues and encourages adolescents to talk about sex and topics that interest them. The society is much more open to the discussion of sex and sexuality, and parents take a very pragmatic approach to it. Both the public and families have a responsibility to help young people avoid unwanted pregnancies and STDs. The goal is to instil a sense of responsibility in the young and to give them the knowledge to act accordingly. It is also important that the general public is tolerant and accepting of teenage sexual experiences. According to Lottes (2002:81), the view of government is that it is impossible and quite ridiculous to try to prevent teenagers from having sex. Also, parents in the Netherlands recognise that their children are going to have sex, and are ready to prepare them and to speak with them about their responsibility (Valk, 2000). Another major component of the approach to sexual health in the Netherlands is their mass media campaigns. These campaigns help to educate the youth by providing catalysts for discussion and by reinforcing messages to draw attention to safer sex, and to stimulate organisations to provide training and education to intermediaries (Lottes, 2002:81).

The effects of sexuality education in the Netherlands are thus the successful results of the prevention of unwanted pregnancies, STDs and HIV infection. Both the public and families take a very pragmatic and systematic educational approach to focus on the prevention of negative outcomes by supporting and empowering adolescents to develop and enjoy healthy and safe sexuality. Their sexuality education also emphasises personal responsibility in sexual decision-making, which is based on individual and informed choices, and allows an open discussion about sexual issues that reflect adolescents' interests and needs. Moreover, a strong public support to sexual health education is reinforced by continuous mass media campaigns focused on promoting safe sex and condom use. The results of such a sexuality

education approach show the lowest rate of unwanted adolescent pregnancy and abortions and the highest frequency of contraception use.

2.7.4.4 Sexuality education programmes in South Africa

Sexuality education programmes at schools in South Africa are not compulsory. It has been introduced in some schools, and the Cape Education Department uses sexuality education to promote positive personality development as family education (Seydel, 1992:27, 97). School-based sexuality education programmes, however, are questionable because they do not influence adolescents' sexual attitudes (Seydel, 1992:96). The study of Seydel (1992:6) also reports that sexuality education does not influence the sexual attitudes and knowledge of sexually active school girls.

Furthermore, young adolescents experience very high rates of sexual violence. The results are forced sexual initiation, teenage pregnancy and HIV/AIDS. Many young male and female adolescents also have to sell sexual services to survive (Delius & Walker, 2002:7). This leads to more HIV infection among adolescents.

Africa has the highest rate of HIV/AIDS in the world. Southern Africa, especially, has the largest and fastest growing number of HIV/AIDS cases in the world. In 2000, it was estimated that 4.7 million South Africans (2.5 million women and 2.2 million men) between ages of 15-49 were infected (Delius & Walker, 2002:5). At the current rate of infection more than 50% of South Africans under the age of 15 could die of AIDS-related causes in the next five to ten years (KFF, 2003a). South African teenagers are clearly faced with the danger of HIV/AIDS. However, despite this concern about HIV for South African teenagers, the large majority of teenagers believe that they are at a very low or no risk for infection (KFF, 2001).

The government recognises the urgency to educate adolescents with an HIV prevention programme and sexuality education programmes are developed and implemented to prevent and solve the problems of HIV infection and teen pregnancy. Examples of such programmes are the *Life skills education programme* and the *Life skill training programme*, the *YouthLife programme*, and the *LoveLife campaign*.

The life skills education programme was introduced into the school curriculum in 1997. Education in life skills has been a central pillar of the state and NGO strategy to combat the threat of HIV/AIDS in South Africa. The life skills education programme, which incorporates HIV/AIDS education, is now a compulsory part of the school curriculum and is to be fully implemented by the end of 2003 (SAOIG, 2003). The *Life skills training programme* (2000) has also been published by the Departments of Health and Education in Johannesburg. The contents of the programme are self-awareness, values, decision-making and problem solving, sexuality, HIV/AIDS, families and relationships, and sexuality in adolescence. The detailed contents of sexuality education in adolescence are biological and emotional changes, self-image and adapting to change and the consequences of sexual relationships, including pregnancy, STDs and HIV/AIDS (De Villers & Kruger, 2000:1-167; Michel *et al.*, 2000:1-78). The training programme provides a number of activities and exercises that the trainer/teacher can use in an HIV/AIDS life skills programme (Michel *et al.*, 2000:2). In this way schools can provide an important opportunity to efficiently promote healthy sexual behaviour to large numbers of young people and adolescents, to develop a team approach to addressing the problems of their sexuality, to ensure appropriate targeting of school-based initiatives, and to enhance curriculum content and improve teaching approaches (Varga & Shongwe, 1999:19-20).

The YouthLife programme involves participation of student leaders. It is supported by NGOs as South Africa Centre for Organisational Development (SACORD). The programme is an institution-based HIV/AIDS students leadership project that involves regional leadership trainings and one-on-one meetings. The programme provides technical assistance to student leaders who seek to organise campus-wide HIV/AIDS awareness campaigns and to reduce unsafe sexual activities. The results of the 2002 programme showed that the involvement of trained student leaders has helped to improve the sexuality education programme (KFF, 2003b).

The loveLife programme is a nationwide campaign which aims to promote healthy sexual behaviour among adolescents, reduce the incidence of HIV/AIDS, STDs and teen pregnancies (KFF, 2001; 2003a). LoveLife uses a widespread multimedia campaign targeting adolescents. This programme tries to open talk about sex with adolescents and to practice early sexuality education to delay sexual activity, reduce teenage pregnancy, increase condom use, and to reduce the spread of HIV/AIDS and STDs (Mohapeloa, 2002).

However, in South Africa there is a big gap of wealth and poverty between white and black people. Therefore, sexuality, survival, and consumption have become particularly closely intertwined. Because of the different races in the country, there are also many different cultures (Peu, 2000). 75% of the population, for instance, are black or African, 14% are white, and the rest are of mixed race of Asian (Kane-Berman & Tempest, 2004:3). Many people also still depend on traditional healers (SAMJ, 2004:901). Therefore, working relationships between NGOs, community health nurses and traditional healers are encouraged for the sake of effective sexuality education in the battle against HIV/AIDS and people need to be aware of the necessity of sexuality education.

In next section, on sexuality education in South Korea, the emphasis will be on the realities and problems of current sexuality education, and the response and needs of students regarding sexuality education.

2.7.4.5 Sexuality education in South Korea

Korean sexual culture is traditionally Confucianism, entailing that male-female relationships before marriage are taboo and immoral conduct. For Koreans, thus, sexual issues have for a long time been taboo. However, the traditional norms of Korean society have loosened, caused by rapid economic development and the flood of the Western free-sex culture. Sexual information flooding in from outside the country has led to open-mindedness with regard to sex, and has been weakening Korean morality (Chung, 1998:5; Kim, 2000:11; Lee, S., 2000:79-81; Lim, J., 1998:44). The loosening traditional value system also leads to materialism (Lee, 1987:3-17) and confuses adolescents' sexual values (Chung, 1998:2; Kye & Moon, 1999:137). Moreover, the gap between the poor and the rich, and the divorce of parents have an especially negative effect on the healthy socialisation of adolescents.

The age of the onset of puberty of adolescents has been decreasing from 13-14 to 10-11 years of age, and the age of the first menstruation in female adolescents is 13 (Park & Moon, 2003:350). The sexual maturation of adolescents also occurs at a much faster rate than in the past (Chung, 1998:2; Kye & Moon, 1999:137). The speed at which sexuality education programmes are developed and implemented, however, does not keep up with adolescents' sexuality development, resulting in an increasing rate of sex-related problems (Chung, 1998:3; Kye & Moon, 1999:137). Another reason for the increasing number of STDs and HIV cases among adolescents is that many males have sexual intercourse with prostitutes (Han & Choi, 1996:28; Hwang, 1996:20), and that young females often sell sex to older men for money (Anon., 2001a).

Adolescents need to be educated on healthy sexuality development at home, at school and in society. However, adolescents get almost no sexuality education from their parents because most parents tend to avoid sexual issues with their children (Chang, 2001:52), and society also tends to avoid sexuality education for adolescents because of traditional norms. Therefore schools should be in charge of sexuality education for adolescents.

The Ministry of Education and Human Resources Development (MEHRD) in Korea released guidelines about the new sexuality education for reducing sexual related problems and sexual health promotion to elementary, middle, and high school students. Especially, the guideline about the sexuality education for middle school students is empahsised (MEHRD, 2001:5-13), focusing on: 1) biological and emotional development, 2) communication between personal relationships, and 3) sexual culture and sexual values. The contents of each of these programmes are as follows:

1) Biological and emotional development: biological development including secondary sexual characteristics, genital hygiene, pregnancy and delivery, induced abortion, cause of and controlling sexual desire, sexual health including, STDs, HIV/AIDS, and unhealthy sexual behaviour.
2) Communication in personal relationships: marriage and family, dating and love, decision-making and responsibility, and self-assertion.
3) Sexual culture and sexual values: sexual abuse, sex and sexual mass media, sexual merchandise, and equality between the two sexes.

Lee and Bae (1997:16-17) also suggest in their "sexuality education guidance" that sexuality must imply three elements of sexuality such as life, love, and pleasure. The contents of the three elements of sexuality are as follows:

- Life in terms of sexuality implies the male and female's reproductive structure and function, secondary sexual characteristics, sex hormones, pregnancy and delivery, contraception, and STDs including HIV/AIDS.
- Love in terms of sexuality embraces relations between male and female, sexual violence, equity of sexual roles, sex and love, sexual behaviour, and sexual emotion.
- Pleasure in terms of sexuality implies pornography, sexual merchandise and masturbation.

However, most schools are not able to regularly practice sexuality education because Koreans have the extra burden of severe competition to pass the university entrance examination. Sexuality education in schools is also not politically established yet. Systematic sexuality education, therefore, is not available in schools because individual schools find it difficult to plan for it, lack sexuality education materials, and lack sexuality educators (Chung, 1998:71; Kye, 1999:9; Lee, K., 2000:13; Lee, S., 2000:87-89). Sexuality education in schools thus only emphasises its necessity but is not supported by an effective educational programme. It is therefore still very likely to be fragmentary and unsystematic because of a lack of a curriculum for sexuality education (Lee, S., 2000:89).

The schools which do offer sex education only allow one or two hours a year for the subject (Kye & Moon, 1999:138; Lee, S., 2000:89; Moon, 2000:414). This sexuality education then simply consists of textbook information provided by the school nurse (28.5%), the home-management teacher (17.4%), the physical exercise teacher (14.3) or an invited facilitator (39.8%) (Chang, 2001:49; Park, 1996:17), which is of no help to curious teenagers (Kang *et al.*, 2000:57; Kong *et al.*, 2000:5; Kye & Moon, 1999:138). The educating methods mainly involve explanation (51%) and the use of audio-visual materials (33%) (Chang, 2001:51).

The percentage of middle school girls and boys who have received sexuality education at least once is 96.3% and 91.2%, respectively (Chung, 1998:70). This shows that in middle schools, girls receive sexuality education more often than boys. According to a study by Chang (2001:49), however, 7th graders receive sexuality education more systematically than other graders. This seems to indicate a recognition of the need for earlier sexuality education.

Students who have received sexuality education found it mostly unsatisfactory (Chang, 2001:50; Chung, 1998:70, Kang *et al.*, 2000:57; Park, 1996:17). The reasons they gave were the textbook-like general information they received, while they received nothing that could help them practically (Chang, 2001:50; Kang *et al.*, 2000:57; Ryu, 1983:250).

The students therefore wanted to retain only the useful information they received in their sexuality education classes for the future (Chang, 2001: 49, Choi, 2002:13; Park, 1996:17). According to Park (1996:18), the most intriguing sexuality education subjects for middle school students are relations with the opposite sex, masturbation, how to control sexual desires, STDs, including HIV, sexual organs, pregnancy and contraceptive methods. The most intriguing subjects for 7th graders are sexual risk factors and their prevention, dating, biological development, and emotional difference between male and female. Chung (1998:71) also reports that the most intriguing sexuality education subjects for middle school students are the reason for having sexual desires and the methods of controlling sexual desires, masturbation, abortion, contraception, pregnancy, sexual intercourse, sexual risks, prevention methods, including risks of STDs, and sexual violence. From these studies it is clear that middle school students in general are intrigued by the same subjects.

As a result of the above findings, many studies were conducted about sexuality education; programmes which are individually designed by researchers themselves or which are based

on research regarding the influence of sexuality education on sexual knowledge and attitudes of middle school students (Choi, 2002:5; Kye, 1999:3; Sung, 2001:4). The result of the studies have shown significant increases in sexual knowledge and enhanced sexual attitudes (Choi, 2002:63; Kye, 1999:46-47; Sung, 2001:68). The post-test of Kye (1999:19-20) and Sung (2001:24) were conducted right after students received their sexuality education, whereas Choi (2002:24) conducted the post-test 10 days after sexuality education had been completed.

The research methods, contents and results of three studies will be briefly explained:

Kye (1999:19-22) conducted a study of 199 7th graders in several middle schools for girls who were given 6 hours of sexuality education on such subjects as sexuality and sex roles, relationships with the opposite sex, sexual violence and abortion, the reproductive structure and secondary sex characteristics, pregnancy and delivery, and STD's, including AIDS. The study showed that statistically, sexuality education significantly increases sexual knowledge and enhances sexual attitudes. Also, the students whose mothers had higher educational attainments and who were given sexuality education by teachers were more knowledgeable and had more positive attitudes than the other students. Kye reports that the most intriguing contents for 7th grade girls are relationships with the opposite sex (61.8%), adolescent's emotions (55.8%), physiological differences between two sexes (52.8%), AIDS (48.7%), STDs (46.7%), pregnancy (45.2%), contraception (45.2%), abortion (41.7%), sexual intercourse (41.7%), masturbation (41.2%), sexual violence (41.2%), and genital structure and secondary sex characteristics (28.6%). On the other hand, 7th grade boys wanted to take such sexuality education subjects as prevention of sexually related risks (57.7%), relationship with the opposite sex (56.3%), male and female biological development

(52.0%), emotional difference between males and females (50.3%), and the meaning of love (50.3%).

Sung (2001:24, 31) conducted a study of 238 9th graders in co-educated middle school for boys and girls who were given 7 hours of sexuality education on such subjects as physical structure and change, pregnancy and delivery, abortion and contraception, methods of protection against STDs, including HIV/AIDS, relationships with the opposite sex and methods of preventing sexual violence. The study showed that statistically sexuality education significantly increases sexual knowledge and enhances sexual attitudes, as was also found in the study by Kye (1999:46-47).

Choi (2002:20-24) conducted sexuality education for 6 sessions in 12 days to co-educated middle school students. It took 50 minutes per session, and the subjects of sexuality education were biological development, pregnancy and contraception, anguishes during adolescence, sexual health, sexuality and social environment, and equity of sex roles. Audio-visual materials such as transparency and VTR film were used for 15 minutes on the subjects of biological development, pregnancy, and STDs and AIDS. A pre-test was conducted 2 days before the offering of sexuality education, and a post-test was conducted 10 days after finishing the sexuality education. The study showed that statistically sexuality education significantly increases sexual knowledge and enhances positive sexual attitudes, as also found in the studies by Kye (1999:46-47) and Sung (2001:68).

Seo (2003:14) conducted a study on 354 that 8~9th graders in six co-educated middle schools that were given sexuality education over one semester (from Sep. ~ Nov. in 2002) sexuality education. The content included physical structure and change, pregnancy and delivery, abortion and contraception, STDs, including HIV/AIDS, relationships with the

opposite sex, sexual violence, sexual moral and sexual information. The study showed that sexuality education significantly increased sexual knowledge but sexual attitudes were not changed (Seo, 2003:38-41). The result of this study is this different from the other mentioned studies.

If schools can continuously and systematically present sexuality education for adolescents according to their stages of sexuality development, positive sexual attitudes may be enhanced in these adolescents. Accurate information about sexuality will also help adolescents to recognise the responsibilities that come with sexual behaviour and assist them in making their own sexual decisions.

2.8 SUMMARY

The results of numerous studies indicate that sexuality education is effective not only to increase sexual knowledge but also to increase contraceptive use, responsibility regarding sexual behaviour and decision-making, and self-esteem with positive sexual attitudes. Sexuality education in the Netherlands in particular shows good results. The sexuality education for adolescents there involves open discussion and a pragmatic approach to sexual issues by parents, schools and society. Countries where parents and schools are reluctant to discuss sex with their children or students, especially need to pay attention to the method of sexuality education in the Netherlands.

Different approaches and programmes were also considered in this chapter, and the following important issues were identified to be covered in a sexuality education programme: 1) provide accurate information about sexuality and biological and emotional changes of life, 2) view sexuality as an integral part of a person's self from birth to death, 3) reinforce messages about methods of avoiding sexual risks, 4) encourage responsibility for

own sexual behaviour and the consequences of the sexual behaviour, 5) develop decision-making skills and responsible decisions of sexual choices, and 6) encourage open talk and interpersonal communications.

Sexuality is an important part of human life because humans are sexual beings. The most important sexuality developmental stage in humans is adolescence. Adolescence is a period of rapid physical and emotional development from childhood to adulthood. Adolescents experience sexual maturation, increased sexual desires, curiosity about sexual matters and interest in the opposite sex. They try to move away from dependence on their family to pursue independence in their own world, and to learn about expressing love to the opposite sex. Adolescents also try to imitate through observation and to develop sexual consciousness and self-identity. Sexual attitudes and behaviour are strongly influenced by environmental factors and individual personalities.

Today the physical development and the sexual maturation of adolescents take place much more quickly than in the past, and there is an excess of sexual information that increases the sexual desires of adolescents. For this reason, the rate of adolescent sexual intercourse is sharply on the rise. Moreover, most adolescents' sexual knowledge is unreliable or partially correct because friends are their main source of information. A lack of sexual knowledge leads to social problems such as teenage pregnancy, abortion, childbirth and STDs including HIV infection.

To reduce the sexual problems of adolescents, pragmatic sexuality educational programmes are needed to help adolescents. A pragmatic sexuality educational programme is therefore considered to educate adolescents about biological and emotional development during adolescence, provide preventive and protective methods against sex-related risks, and the

capability of decision-making skills in order to make responsible decisions regarding their sexual health. The educational programme must also develop self-awareness and self-esteem.

The next chapter will focus on the research method for this study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

In the previous chapter a detailed literature study was done to serve as a foundation for the sexuality education programme and questionnaire. In this chapter, the research methodology that was briefly discussed in chapter 1 will be discussed in detail, along with ethical considerations that were adhered to in this research.

3.2 RESEARCH DESIGN

The research design of this study was an experimental design using the Randomised Solomon four-group design (De Vos, 1998:135) (see Table 3.1). The Randomised Solomon four-group design was the design of choice for this research as it minimises threats to internal and external validity and controls the reaction effects of the pre-test. Two experimental and two control groups were part of the design.

This study was conducted in two co-educated middle schools and focused on the influence of a sexuality education programme on the sexual knowledge and attitudes of middle school learners. The experimental groups received the sexuality education programme while the control groups received reading matter on sexuality at the same time that the experimental groups started their programme. The contents of the sexuality education programme and the content of the reading matter were very similar.

Table 3.1: The Randomised Solomon four-group design

	Group	Pre-test	Treatment	Post-test
Experimental	E1	Re1	X	Oe1
group	E2	-	X	Oe2
Control	C1	Rc1	-	Oc1
group	C2	-	-	Oc2

(De Vos, 1998:135)

Re1, Rc1 : Questionnaire (Biographical data, Relationships, Sexual knowledge about sexuality, Experiences related to sexuality, Attitudes about sexuality)

X : Conducting sexuality education

Oe1, Oe2, Oc1, Oc2: Questionnaire the same as in the pre-test

3.3 RESEARCH METHOD

Sampling, method of data collection, data gathering, and data analysis are discussed.

3.3.1. Sampling

A brief discussion of the population, sample and sample size was presented in chapter 1. In this section a more detailed discussion will be provided.

3.3.1.1 Population

In this study the *population* refers to adolescents attending middle schools in Korea. The target schools were the only two co-educated middle schools which were located in Youngdo-gu of Busan, Korea. One was Yeongseon and the other was Shinseon co-educated middle school. The *middle school learners* refer to the age group between 13 and 15 years and are learners in the 7th to 9th grade.

The total number of classes and learners of the two schools in each grade were as follows: Yeongseon co-educated middle school had 6 classes in the 7th grade (214), 7 classes in the 8th grade (236) and 6 classes in the 9th grade (207). The total number of learners in Yeongseon middle school was 657. Shinseon co-educated middle school had 7 classes in the 7th grade (242), 6 classes in the 8th grade (201) and 6 classes in the 9th grade (209). The total number of learners in Shinseon middle school was 652. The total population of the two middle schools was therefore 1309.

3.3.1.2 Sample

The sample of the four groups was randomly selected from the two schools for the Solomon four-group design. Two groups formed the experimental groups and the other two groups the control groups. The experimental groups (E1 and E2) were selected from Yeongseon co-educated middle school, and the control groups (C1 and C2) were selected from Shinseon co-educated middle school.

3.3.1.3 Sample size

The total population of the two middle schools was 1309. After statistical consultation, the sample size was estimated at least 157 per school for this study. The sample size for the experimental groups (E1 and E2) was 207, and that of the control groups (C1 and C2) was 209. Thus, the total number of distributed and collected questionnaires was 207 at Yeongseon and 209 at Shinseon middle school. However, 13 and 10 questionnaires of Yeongseon and Shinseon middle school respectively were not fit to use for statistical analysis because they were insufficiently completed. The total number of analysed questionnaires for the experimental group was thus 193 and 199 for the control group. The total sample size was therefore 392.

3.3.2 Method of data collection

The questionnaire, comprehensive programme in sexuality education, reading matter, and process of data gathering are discussed in detail.

3.3.2.1 The questionnaire

The method of compiling the questionnaire, pilot study, reliability and validity, and length of the questionnaire are discussed below.

3.3.2.1.1 Method of compiling the questionnaire

The questionnaire (Appendix G) was compiled and arranged on the basis of a comprehensive literature study by the researcher. Open-ended and closed-ended questions were set, focusing on the knowledge and the attitudes of sexual issues of adolescents. Most of the items were closed-ended questions, which required respondents to use check marks as responses. A number of open-ended questions were included to allow respondents to provide more detail where necessary, and with certain questions space was provided for them to motivate their choices. The format was based on self-report. The questionnaire was divided into 5 sections, namely biographical data (6 questions), relationships (13 questions), knowledge about sexuality (100 questions), experiences related to sexuality (21 questions), and attitudes about sexuality (86 questions). The total number of questions in the questionnaire was 226.

The questionnaire was discussed with the promoter and co-promoter for this study and with other subject specialists as well. Two educators in sexuality education in Korea also evaluated the questionnaire. The questionnaire was finally evaluated by a statistician and other experts for face and content validity. Amendments were continuously made to ensure

effectiveness and quality. The questionnaire was finalised after adjustments had been made according to all recommendations.

3.3.2.1.2 The pilot study

The pilot study was used to test the practical aspects of the research study: the way in which the questionnaire would be conducted, the time it took to complete, and to ascertain clarity about the interpretation of questions and to establish the reliability of section E through the Cronbach α (alpha) coefficient test. The pilot study was conducted on 25 learners who were excluded from the target schools. Thereafter the questionnaires were distributed to the target schools. They learners who were involved in the study attended a private educational institution in Youngdo-gu, Busan. Of the 25 questionnaires which were received back, 4 could not be used for statistical analysis, as they were insufficiently completed. Therefore, 21 questionnaires were used for the statistical analysis of the pilot study.

As mentioned above, the Cronbach α (alpha) coefficient test was used to establish the reliability of section E of the questionnaire and to eliminate items with a lower coefficient content. 4 questions were deleted from the section on sexual attitude, as they indicated a lower coefficient than the other questions after the Cronbach α coefficient test. 86 questions remained in this section, with the Cronbach α coefficient test found to be 0.814. Generally, when the value of the Cronbach α coefficient is over 0.6, reliability is comparatively high (Chae, 2002:250). Therefore, this study complied with reliability requirements according to the Cronbach α coefficient test.

After analysing and discussing the result of the pilot study, appropriate revisions based on the corrections, recommendation and suggestions were made and the questionnaire was finalised.

3.3.2.1.3 Reliability and validity of the questionnaire

Reliability and validity are the two most important aspects which can influence the quality and success of research (Brink, 1996:124). Consequently, these two aspects will be discussed as they relate to this study.

1) Reliability

Reliability of a tool refers to the consistency with which the tool measures the attribute for the research. Reliability is indicated by a correlation measure that varies between 0 and 1. The nearer the measure is to 1, the higher the correlation (Brink, 1996:171). The Cronbach α (alpha) coefficient test is applied to establish internal consistency. The Cronbach α coefficient test thus provides the measures of internal consistency for questionnaires. To ensure a higher correlation between contents, it is necessary to eliminate content with a lower coefficient than the rest through the analysis – in this way internal consistency between the contents is ensured by means of the Cronbach α coefficient test. Reliability was tested in the section on sexual attitudes in the questionnaire, to ensure internal consistency between contents.

The section on sexual attitudes consisted of 86 questions in 12 main items. The range of the Cronbach α coefficient test of the12 items was 0.502~0.842, and the coefficient of each item is shown in Table 3.2. The Cronbach α coefficient of this study that has been calculated from 86 sub-items (total questions in section E) was 0.873. According to the criteria as discussed by Brink (1996:171) and Chae (2002:250), therefore, the reliability of this study is proven by the high coefficient for the internal consistency of the questionnaire.

Table 3.2: Reliability of each item on sexuality attitudes in the questionnaire

Item	Headings (groups of questions)	Total number of questions	Cronbach α
E1	1.1 ~ 1.4	4	0.822
E2	2.1 ~ 2.4	4	0.502
E3	3.1 ~ 3.6	6	0.505
E4	4.1 ~ 4.11	11	0.839
E5	5.1 ~ 5.6	6	0.749
E6	6.1 ~ 6.5	5	0.591
E7	7.1 ~ 7.6	6	0.775
E8	8.1 ~ 8.8	8	0.613
E9	9.1 ~ 9.7	7	0.842
E10	10.1 ~ 10.11	11	0.802
E11	11.1 ~ 11.12	12	0.641
E12	12.1 ~ 12.5	5	0.676
E1 ~ E12	1.1 ~ 12.5	86	0.873

Another method of ensuring reliability was the researcher's compliance with the research process.

2) Validity

Validity of a research tool refers to its ability to obtain the required data and to tell the researcher whether the tool measures what it is supposed to measure (Notter and Hott, 1994:119). The knowledge section of the questionnaire was evaluated for face and content validity. Face validity of this study was ensured by determining readability and clarity of the content by the supervisor of the study in South Africa and sexuality educational specialists in Korea. Content validity was also ensured by basing the questionnaire on a relevant literature study and verifying the questions on adolescents' sexuality with the supervisor's of the study and other subject specialists, in order to ensure that the content of the

questionnaire was appropriate and representative of sexually related concepts. During the pilot study, the knowledge section was determined by the 25 learners.

3.3.2.1.4 Length of questionnaire

According to Brink (1996:156) a questionnaire should not take more than 20 to 25 minutes to complete. The total number of questions in the questionnaire used for this study was 226, and took 20 to 40 minutes to complete. Some learners took longer to complete the questionnaire because they wrote more or longer motivations for their responses to open-ended questions.

3.3.2.2 The comprehensive programme in sexuality education

The programme compilation and content and the presentation of the programme are discussed in this section.

3.3.3 Compiling the programme

The comprehensive programme in sexuality education was compiled by means of a literature study and by focusing on all relevant aspects mentioned in journals, books, articles and relevant internet databases. Other sexuality education programmes were also evaluated. When the comprehensive programme on sexuality education to adolescents was compiled, attention was given to specific themes based on the recommendations of SIECUS (Sexuality Information and Education Council of the United States) and MEHRD (Ministry of Education and Human Resources Development) in Korea. Both national and international data was used to ensure a comprehensive approach. Discussions were held with experts in the field and the recommendations of previous research studies were incorporated.

3.3.3.1 Content and method of presentation of the programme

The content of the comprehensive programme in sexuality education focused on specific topics and were divided into 15 sessions of 45 minutes each. Two main components where covered. In session 1~8 the focus was on increasing the sexual knowledge of the learners and in sessions 9th~15th the focus was on enhancing sexual attitudes and behaviour based on the sexual knowledge acquired in the previous sessions.

Each session lasted 45 minutes and was presented once a week on specific prearranged days. An interactive method of presentation was used to ensure that knowledge increased and that there was a positive change in attitudes and behaviour. PowerPoint presentations, video tape, printed matter, discussion, role-play, and true-or-false quizzes formed the basis of the sessions. The PowerPoint presentations were used for explaining and illustrating issues which related to the content. The video tape was used to introduce real situations, in order to stimulate discussion and to ensure retention. The printed matter was intended as something to which learners could refer after the discussions, whereas role-play was used as a means of self-expression and of facilitating decision making in an individual or group context. The true-or-false quiz was used to evaluate learners' understanding of the lecture. A brief summary concluded the sessions. The content and method of presentation of each session were given as an overview. The full programme is provided in Appendix I.

FIRST COMPONENT

(Sessions 1~8): Sexuality education for more accurate sexual knowledge

Sessions 1~8 focused on giving accurate information about sexuality in order to increase the sexual knowledge of the learners so that it can lead to positively changing sexual attitudes and possibly to enhancing positive sexual behaviour. A brief description of the rationale,

aim, learning contents and method of presentation as well as materials used for each session follows:

- **Session 1: Sexuality and self-awareness**

Orientation towards the programme:

Before the first session, an introduction was given to the 15 sessions of the sexuality education programme and learners were told what to expect. The researcher invited learners to talk and express themselves freely in order to stimulate spontaneous conversation on sexual matters.

Rationale:

Learners are still unfamiliar with the term *sexuality* and they associate sexual behaviour, mainly coitus, with the word *sex*. Thus, they need to understand the broader concept of sexuality. Self-awareness is important to develop self-management and self-esteem because they are still in a developing stage.

Aim:

The aim of this session on sexuality and self-awareness was to enable learners to understand the concept sexuality and to strengthen their experience of the uniqueness and value of human beings.

Learning contents:

1) What is sexuality?

- Different meanings of sex, gender, and sexuality
- Personality development
- Theories of Freud and Erickson

2) Sexuality in puberty

- Biological, emotional and social developmental process in puberty

3) Sexual identity

- Self-awareness and pride in self as a male or female

4) Discussion

- Meaning of sexuality
- Development of sexuality and personality
- Do you take pride in yourself?

Method of presentation:

- This session was presented by means of a lecture followed by a discussion.

- **Session 2: Male reproductive system and nocturnal emission**

Rationale:

Learners are in a transitional period towards becoming adults. Thus, they experience remarkable biological changes for maturation and are curious about the developments in their reproductive systems. Male learners also experience the unpredictability of erections and nocturnal emissions.

Aim:

The aim of this session on the male reproductive system and nocturnal emission was to enable learners to understand the anatomy and physical function in the male reproductive system and hormonal effects, such as in nocturnal emission. Male learners must also understand and practice the importance of genital hygiene.

Learning contents:

1) The male reproductive structure and functioning

- External parts: penis and scrotum
- Internal parts: testes, epididymis, vas deference, seminal vesicle, prostate gland, Cowper's gland, ejaculation duct, and urethra.

2) Reason for nocturnal emission

3) Male genital hygiene

- Cause and symptoms of glands inflammation and prevention of genital infection
- Male genital circumcision

4) Discussion

- Why nocturnal emission occurs
- Why male genital hygiene is important

Method of presentation:

This session was presented by means of a lecture and video followed by a true-or-false quiz and discussion. The lecture was presented first, to help learners understand the contents, followed by a video entitled "Reproductive structure and function of the male", to demonstrate the discussion and to stimulate interest in the topic. A true-or-false quiz and discussion were held to evaluate knowledge and to aid memorising.

- **Session 3: Female reproductive system and menstruation**

Rationale:

Female learners experience menstruation as a remarkable biological change towards maturation. They therefore are curious about and interested in the development of the reproductive system, which is often accompanied by feelings of embarrassment and

discomfort because of their menstruation. They are also unaware that certain infections can be transmitted when they are menstruating.

Aim:

The aim of this session on the female reproductive system and menstruation was to enable learners to understand the anatomy and physical function of the female reproductive system and its hormonal effects, such as menstruation. Female learners must be able to understand and practice the importance of genital hygiene.

Learning contents:

1) The female reproductive structure and functioning

- External parts: labium majus, labium minus, clitoris, hymen, and vaginal opening.
- Internal parts: vagina, uterus, fallopian tube, and ovary.

2) Ovulation and menstruation period

- Hormones relating to menstruation: oestrogen, progesterone, and LH
- Ovulation and cycle of menstruation
- Menstruation period

3) Female genital hygiene

- Cause, symptoms and prevention of vaginal infection
- Genital hygiene during a menstrual period.

4) Discussion

- The meaning of menstruation
- The importance of female genital hygiene

Method of presentation:

A lecture was given first to help learners understand the female reproductive system, followed by a video entitled "Reproductive structure and function of the female", to increase their understanding and to stimulate their interest. A true-or-false quiz and discussion were held at the end of the session.

- **Session 4: Pregnancy**

Rationale:

The teen pregnancy rate is increasing on a worldwide scale, including Korea. This negatively impacts on the future of these adolescents. Moreover, pregnant young female adolescents in Korea are often not aware of the symptoms of pregnancy, with the result that they experience the trauma of unexpectedly giving birth in undesirable places, like toilets or buses.

Aim:

The aim of this session on pregnancy was to enable learners to understand the process of pregnancy and symptoms of pregnancy, to prevent mistakes in early pregnancy and to ensure prenatal care for a healthy baby.

Learning contents:

1) The process of pregnancy

- The process from sperm production to parturition

2) Developmental process of the foetus

- 4, 6, 9, 12, 16 weeks after implantation

3) Symptoms of pregnancy

4) Process of parturition

5) The function of the placenta, umbilical cord and amniotic fluid

6) Calculation method of expected date of birth

7) Prenatal care and antenatal training

8) Discussion

- Meaning of pregnancy
- Reason for the importance of prenatal care and antenatal training

Method of presentation:

This session was presented by means of a video, followed by a discussion. The video, entitled "Fertilisation-pregnancy-parturition", was shown to focus their interest and concentration. This was then supplemented by an explanation to increase their understanding, followed by a discussion.

- **Session 5: Abortion**

Rationale:

An unwanted pregnancy in adolescents may be associated with negative feelings, especially fear, embarrassment and desperation. This may cause adolescents to seek an abortion, but they are usually unaware of the loss of human dignity or complications associated with an unsafe abortion.

Aim:

The aim of this session on abortion was to enable learners to understand the danger of induced abortion and to make them aware of the dignity of human beings.

Learning contents:

1) What is abortion?
2) The reason for an induced abortion
3) The method of performing an induced abortion
4) Danger of abortion and its side-effects
5) Dignity of human beings
6) Questions for a discussion

- Do you think that abortion is the same as murder?
- What could you do to prevent induced abortion?

Method of presentation:

This session was presented by means of a video tape entitled "The silent scream", which was shown first to focus their interest and concentration. This was supplemented by a discussion to explain everything and to emphasise the information on the video. The session was concluded with a discussion of the leading questions.

- **Session 6: Contraception**

Rationale:

There are an increasing number of sexually active adolescents and they do not use contraceptives consistently or effectively. They also do not recognise that contraception is important to prevent unwanted pregnancy and abortion.

Aim:

The aim of this session on contraception was to enable learners to understand the importance of contraception and the accurate use of contraceptives to prevent unwanted pregnancy and induced abortion.

Learning contents:

1) Importance of contraception
2) Kinds of contraceptives: body temperature method, calendar method, withdrawal, condom and femidom, pills, Norplant, spermicide, emergency pill, IUD, and sterilisation
3) How to use the contraceptives and failure rates of contraceptives
4) Discussion

- The importance of contraception
- Which contraceptive to use

Method of presentation:

The session was started with a video entitled "Contraceptives", which was intended to stimulate learners' thoughts. This was followed by a supplementary explanation with real-life materials, to improve their understanding and to help them remember the facts. A discussion was held at the end of the session.

- **Session 7: Sexually transmitted diseases (STDs)**

Rationale:

Learners do not know much about STDs. They are therefore unaware of how much it can damage them. They do not take precautions against it and they are in danger of contracting STDs. The learners consequently needed to understand what STDs are.

Aim:

The aim of the session on STDs was to enable learners to understand STDs and to prevent them from contracting STDs.

Learning contents:

1) What is an STD?
2) Kinds and symptoms of STDs: Gonorrhoea, non-gonococcus urethritis, syphilis, genital herpes, chancroid, condylom, and pubic lice.
3) Infection routes of STDs and their prevention
4) Discussion

- How to prevent STD transmission

Method of presentation:

This session was presented by means of a lecture followed by a true-or-false quiz and a discussion.

- **Session 8: HIV / AIDS**

Rationale:

Learners have heard about HIV/AIDS and that it cannot be cured, but they are not well informed. Moreover, they are afraid of HIV infection because they do not know the transmission route of HIV, and they also avoid AIDS patients.

Aim:

The aim of the session on HIV/AIDS was to help learners understand the transmission of HIV and protect themselves against the contraction of HIV. They must be able to accept AIDS victims unconditionally.

Learning contents:

1) What is HIV/AIDS?
2) Ways of transmission of the AIDS virus (HIV)

3) Measures to prevent the transmission of the AIDS virus (HIV)

4) Symptoms of AIDS

5) Discussion

- How to behave towards AIDS victims.

Method of presentation:

This session was presented by means of a lecture, followed by a discussion. Printed matter on three scenarios was handed out to learners to direct the discussion.

SECOND COMPONENT

(Session 9~15): Sexuality education to enhance sexual attitudes

Sessions 9 to 15 focused on enhancing sexual attitudes and behaviour based on the sexual knowledge acquired in the previous 8 sessions. More time was allocated for discussion during these sessions.

- **Session 9: Sexual desire and masturbation**

Rationale:

Sex hormones induce sexual arousal. An increase in sex hormones thus causes sexual interest and sexual desire, especially in males. This sexual desire may result in masturbation or other sexual activities. Learners must argue whether masturbation is shameful or not.

Aim:

The aim of this session on sexual desire and masturbation was to enable learners to understand the experience of sexual desire and the things to which they must pay attention during masturbation.

Learning contents:

1) Sexual desire during adolescence: why sexual desire is aroused
2) Differences in sexual desire between males and females
3) Ways to control and relieve sexual desires
4) Masturbation: When does it become harmful?
5) The effects of practicing masturbation
6) Discussion: Two different situations were given to learners:

- How would you deal with a situation where you cannot concentrate on your studies because you often see or read pornographic material and visit lascivious sites on the internet?
- How would you deal with a situation where you masturbate every night because you like to have imaginary sexual intercourse with the opposite sex before going to bed or while studying?

Method of presentation:

This session was presented by means of an audiovisual presentation, followed by a discussion. A video entitled "Stories of teenagers" was shown, to encourage debate about and participation in the lecture. A PowerPoint presentation was used for supplementary explanation of the information on the video tape, and printed matter was handed out to direct the discussion and to support decision making.

- **Session 10: Relationship with the opposite sex and dating**

Rationale:

The learners are interested to the opposite sex, and they have relationships with the opposite sex already. The learners must be equipped with interpersonal skills in order to develop and maintain a successful relationship, as they experience a need for these relationships.

Aim:

The aim of this session on relationship with the opposite sex and dating was to enable learners to understand the meaning of relationships with the opposite sex and to develop healthy attitudes for good relationships with the opposite sex.

Learning content:

1) Meaning of and healthy attitudes for relationships with the opposite sex
2) Developing interpersonal skills between the two sexes
3) Different sexual emotions experienced by the two sexes: Different senses of arising sexual desire; different experiences of sexual intercourse; different feelings after sexual intercourse.
4) Etiquette when dating

Method of presentation:

Chairs were arranged in a semi-circle to encourage participation in role play. A video entitled "Healthy relationship between the opposite sexes" was shown first to stimulate interest and to encourage participation. A brief summary of the video was given before starting role play to develop interpersonal skills between the two sexes.

- The role-play was performed by four couples of learners who had to respond to two different situations. Two couples enacted the first situation, and the other two couples enacted the second situation.

The two situations were:

1) When your friend couldn't keep his/her promises, how will you express your feelings towards your friend?

2) When your friend feels jealous because you have another girlfriend/boyfriend, how will you express yourself towards your friend?

- **Session 11: Importance of making your own decisions**

Rationale:

Social norms have changed, and certain sexual behaviour may be frowned upon by girls but condoned by boys. Thus, learners need to learn how to handle pressures and make decisions about sexual behaviour because the final decision has to be made by a person him-/herself.

Aim:

The aim of this session on the importance of making your own decision was to enable learners to understand the importance and responsibility of making their own decisions, and the relation between love and sex.

Learning contents:

1) The importance of making your own decisions
2) Harmony of 3 factors (love, life, and pleasure): love + life + pleasure = healthy sexuality.
3) Relation between love and sex
4) Discussion

- Importance of making one's own decision about sexual behaviours
- How to reasonably deal with a situation where you decide against sexual behaviour

Method of presentation:

The session was presented by means of a lecture in a PowerPoint format, discussion, and the viewing of a video entitled "Beautiful clouds and dark clouds". The lecture was meant to help learners understand the issue, and thereafter a discussion followed to cultivate responsibility and better decision making skills. The video was shown to improve decision making skills when there is an opportunity to have sex.

- **Session 12: Expression and assertiveness**

Rationale:

Because learners are still young, they are in a vulnerable position: they experience pressure from adults and are not able to express themselves. Failure to express themselves properly may result in hatred, animosity and rebellious feelings towards others. Assertive expression is neither indirect, passive or aggressive. Therefore, learners should know how to express their feelings in direct communication whilst considering other people.

Aim:

The aim of this session on expression and assertiveness was to enable learners to understand the importance of self-expression and to develop more effective conversation and assertiveness skills.

Learning contents:

1) Importance of self-expression and assertiveness
2) Effective conversation and refusal skills: conversation means a two-way talking system

Method of presentation:

This session was presented by means of a lecture, followed by a discussion of the printed matter. A lecture was firstly presented to help them understand the issue, with some examples. This was followed by a discussion of effective conversation skills and refusal skills by learners. The learners were divided into five groups and one topic was given to each group for discussion. Each group expressed their opinion on their topic through a representative, and learners in the other groups could respond.

Printed material about different situations was distributed to each group:

- Effective conversation skills

1st group: When a friend of yours ruins an art piece that you made, what will you say?

2nd group: When you feel that you won't get your money back after lending it to somebody, what will you say?

- Effective refusal skills

3rd group: When your boyfriend/girlfriend wants you to imitate a love scene in a movie, what will you say?

4th group: When your boyfriend/girlfriend asks for sexual intercourse with you, what will you say?

5th group: Create a situation where it is necessary to strictly just say "NO".

- **Session 13: Sexual abuse**

Rationale:

Sexual abuse is an increasing social problem. Sadly, many cases of sexual abuse are committed by relatives. However, learners are unaware of this and usually think that sexual abuse will be committed by a stranger.

Aim:

The aim of the session on sexual abuse was to enable learners to understand the meaning of sexual abuse and to increase their ability to prevent it.

Learning contents:

1) What is sexual abuse
2) Kinds of sexual abuse and cases of sexual abuse
3) Reasons for sexual abuse
4) Measures to prevent sexual abuse and skills to deal with lascivious telephone calls
5) Effects of and treatment for sexual abuse

- physical, mental, social and sexual effects

6) Discussion

- Why sexual abuse occurs

Method of presentation:

This session was presented by means of a video entitled "Sexual abuse and how to prevent it", which was shown to stimulate interest and to focus concentration. It was, followed by a brief supplementary explanation to improve understanding of the topic, and by a discussion.

- **Session 14: Lascivious media and sex for reward**

Rationale:

There is an explosion of lascivious media because of advanced informational technology and increasing materialism in Korea. Learners can easily access lascivious media, especially through the internet, and in that way they may become aware of *Wonzogyoze* (sex with an older person for monetary gain). All these factors make it necessary for them to think and to improve their sexual values.

Aim:

The aim of this session on lascivious media and sex for reward was to enable learners to understand and make better decisions about lascivious media, sexual merchandise and commercial sex (sex in exchange for money). Another aim of this session was to improve sexual values and morals.

Learning contents:

1) The reason for the existence of lascivious media

- Pornography in magazines and lascivious sites on the internet.

2) Meaning of sexual merchandise

3) Effects and ways to manage lascivious media

4) Problems of and solutions for commercial teen sex and *Wonzogyoze*

5) Discussion

- Best way to obtain correct knowledge and to make the right decisions about lascivious media
- Commercial sex and *Wonzogyoze*

Method of presentation:

This session was presented by means of a lecture in a PowerPoint presentation and a discussion. Role-play was used to improve thinking and decision making and to enhance their sexual attitudes and behaviour. Chairs were positioned in a semi-circle to encourage participation.

- Role-play

Learners had to argue whether it was possible that *Wonzogyoze* could happen to them personally, and they then had to make up their own scenarios. The following are examples of their scenarios:

- A teenage girl visited a motel after receiving a call from a middle-aged man. When the girl opened the door to the motel room, she and the man were both surprised, because he was their neighbour.
- A teenage girl met a middle-aged man and went to a hotel with him. They had sexual intercourse, but instead of paying her, the man beat her.
- A young girl had sexual intercourse with an older man, as a result of which she contracted HIV.

- **Session 15: Equality between the two sexes and healthy sexual life**

Rationale:

Learners are caught in a phase between the conservative Confucianism of older people and the liberalism of young adults: as a result, they are confused about their sexual roles. They therefore need to understand traditional sexual roles and the equality of sexual roles. Furthermore, it is important that they understand and respect the feelings and thoughts of members of the other sex, in order to understand their partners and to lead a fulfilling life.

Aim:

The aim of this session on equality between the two sexes and a healthy sexual life was to enable learners to understand the equality of sexual roles in the two sexes. Learners must understand how to lead a healthy sexual life.

Learning contents:

1) Sexual roles and discrimination between the two sexes
2) Equality between the two sexes
3) Healthy sexual life for the future
4) Topic of discussion

- How can you lead a healthy sexual life?

Method of presentation:

This session was presented by means of a lecture, followed by a discussion

Summary of the session:

At the end of the session the aims of the sexuality education programme of all 15 sessions were briefly summarised. Contraception, STDs and HIV/AIDS were emphasised to prevent unwanted pregnancy and STD/HIV infection. Interpersonal relationships and responsible decision making were also emphasised to improve sexual behaviour for a healthy sexual life and a satisfying family life in future.

An evaluation of the presentation of the programme was conducted to establish whether or not learners were satisfied with the sexuality education programme, and which contents they found most interesting. The researcher expressed her appreciation towards the learners for their participation. It was announced that the questionnaire would be administered two weeks later, and they were requested to answer the questions in the questionnaire honestly.

3.3.3.2 General presentation of the programme

The general presentation of the programme is discussed below, with the focus on the atmosphere in the classroom and learners' considerations for presentation.

1) Atmosphere in the classroom

The school's classrooms were used for the presentation of the programme. There were 34~36 learners per group. Both genders where present in the groups, so that they could actively participate in all discussions. The choice was left to the learners to mix with the same or the opposite gender during small group discussions. For small-group discussions the chairs could be moved around, and role-play was performed in front of the classroom.

To establish rapport between the educator and learners and to achieve the goals of the sexuality education programme, the importance of comfortable interaction with learners regarding sexual topics was taken into consideration. The researcher maintained an open posture and acted in a warm, friendly, understanding and relaxed manner towards the learners. This sensitivity was necessary to create an atmosphere conducive to learning, understanding and retaining the knowledge, to make them feel more comfortable to talk about their sexual activities and to encourage their participation.

2) Considerations for the presentation

The learners in the experimental group were divided into six smaller groups of approximately 35 learners, each with three presentations on Wednesdays and three presentations on Fridays. The same session was therefore repeated six times.

The researcher considered the followings aspects for the presentation of the sexuality education programme: 1) Learners should be able to concentrate, 2) Appropriate terms and expressions on the learners' level should be used, 3) Appropriate gestures should be used when explaining, 4) Examples of recent issues should be shown and explained, 5) Learners should be satisfied with the sexuality education, 6) Accurate sexual terms should be used, 7) Learners must not be embarrassed when they ask something, but should be answered

honestly, 8) Voice must be clear and audible, and 9) Rapport must be established between the researcher and learners.

The researcher ensured that she, as a sexuality educator, was knowledgeable and skilled in communication, and that she had positive sexual attitudes and a strong sexual value system. However, while presenting the sexuality education the educator took care that her own personal sexual attitudes and values did not influence the learners. Cultural sexual values were provided to enhance sexual attitudes and behaviour in the reality of a culture-bound society.

3.3.4 Reading matter for the control group

The reading matter for the control group was bound into a 61-page booklet. The same structure and content was followed as for the experimental group's programme. The control group was provided with pictures and scenarios on paper but no videos. Before distribution the booklet was evaluated by the educational specialist at the Busan Education Office, as well as by the supervisors of this study, to ensure that the material was of a high quality and that the content was applicable. The control group thus received similar content as the experimental group, but they did not receive any facilitative interactions from a sexuality educator.

3.3.5 Data gathering

Permission to conduct the study was obtained from the Busan Metropolitan City Office of Education (Appendix A) and the Seobu Education Office in Busan (Appendix B), and from the principals of the Yeongseon and the Shinseon co-educated middle school in Youngdo-gu of Busan (Appendix C & D). Appointments were made to explain the research by focusing on the objectives, method, questionnaire, and comprehensive programme in sexuality

education. After obtaining permission, the researcher secured the cooperation of the teachers in charge at the Yeongseon and Shinseon middle school who were involved in collecting questionnaires for the research. The school health nurse and vice-principals at the middle schools were involved as mediators to obtain permission from representatives of learners' parents. Thus, parental consent for the presentation of the sexuality education programme and the distribution of reading matter was obtained at the middle schools by the researcher, by explaining the sexuality education programme and the content of the reading matter to the parents who belonged to the respective PTAs (Parent-Teacher Associations) of the middle schools, who then verbally consented to the sexuality education programme.

Learners in the experimental group was informed that the sexuality education programme would last for 15 weeks and that it would be presented once a week at prearranged days. It was also announced that the questionnaire would be administered twice – one week before starting the sexuality education programme, and again two weeks after finishing the sexuality education programme. Learners in the control group received an explanation of the reading matter. Therefore, the learners in both schools knew about the process and they consented to the research process verbally.

The questionnaire was distributed twice, first as a pre-test and then as a post-test, to determine the influence of the sexuality education programme on sexual knowledge and sexual attitudes. The researcher, teachers, and school health nurse distributed the questionnaires on a prearranged day. Respondents answered the questionnaire in their respective classes. Anonymity of the respondents was ensured by numbering the questionnaire instead of writing their names on it. The pre-test was conducted one week prior to the implementation of the 15-week comprehensive sexuality education programme

for the E1 and C1 groups. The E1 and E2 groups were involved in the sexuality education programme

At the same time that the sexuality education programme commenced the reading matter was distributed by the teachers to the C1 and C2 groups. This was done to reduce the Hawthorne effect (Burns & Grove, 1993:41, 769).

The post-test was conducted two weeks after finishing the last session of the sexuality education programme for the experimental groups with E1, E2, C1 and C2 groups. The researcher and teachers conducted the post-test.

A total number of 207 questionnaires were distributed to and collected from Yeongseon, and 209 were distributed to and collected from Shinseon middle school. However, 13 questionnaires of Yeongseon and 10 questionnaires of Shinseon middle school were not fit to use for statistical analysis because they were insufficiently completed. Therefore, the total number of respondents in the experimental group was 193, and the total number in the control group was 199. The final number of questionnaires for statistical analysis was therefore 392.

3.3.6 Data analysis

Data was analysed by means of the SPSS/PC WINDOW 10.0 programme (2001). An analysis of the general questions was performed through a calculation of frequency and percentage by cross-tabulation analysis, and the Chi-square (x^2) test was performed for significant differences and comparisons between frequencies of the data (Burns & Grove, 1993:499), to determine the values of x^2 for all the post-test groups. To determine the effect before and after the sexuality education programme a between-group comparison was done

with t-tests for variance analysis (pre-test and post-test) (Burns & Grove, 1993:508). A correlation analysis was performed to establish the relation between knowledge and attitudes about sexuality.

The data was analysed in the following order:

1) Biographical data and relationships frequency and percentage were determined by means of cross-tabulation analysis.
2) Biographical data and relationships between experimental and control group were analysed by means of the Chi-square (x^2) test.
3) Knowledge and attitudes about the sexuality of the experimental group (E1) and the control group (C1) were analysed by means of the result of pre-test t-test.
4) To compare the influence of sexual knowledge and attitudes before and after sexuality education (Re1: Oe1, Re2, Oe2, Rc1:Oc1, Rc2:Oc2) an analysis was made by means of paired t-tests.
5) To compare the influence of sexual knowledge and attitudes after sexuality education of the experimental group and the control group (E1:C1, E2:C2), t-tests were used.
6) To compare the influence of sexual knowledge and attitudes after sexuality education, both the experimental group and the control group (E1:E2, C1:C2) were analysed by means of t-tests.
7) A correlation analysis (Pearson correlation coefficient) was performed to determine the relation between sexual knowledge and attitudes.

3.4 ETHICAL CONSIDERATIONS

Ethical considerations are a vital part of any research, and during this research the necessary steps were taken to comply with these ethical considerations. The human rights of the

respondents were protected. The principles as outlined in Brink (1996:42-46), namely informed consent, freedom of choice, anonymity and confidentiality, risks and benefits, were adhered to:

3.4.1 Informed consent

Informed consent was given in both written and verbal form (Brink, 1996:42). Informed consent was obtained in writing from the Busan Metropolitan City Office of Education and the Seobu Education Office in Busan and from the school principals of both middle schools in which the study was to be conducted (see Appendix B, D, E and F).

To obtain parental consent, appointments were made with the respective PTAs (Parent-Teacher Association) that represents learners' parents at the two schools. The procedure and the contents of the sexuality education programme were explained verbally to the PTA at the target middle school for the experimental group, and the content of the reading matter was explained to the PTA at target middle school for the control group. Informed consents for both groups were thus obtained verbally from the PTA.

To get learners' consent, it was announced that the sexuality education programme would be presented to the experimental group once a week at prearranged days for 15 sessions and that it would be surveyed twice. To learners in the control group, an explanation was given about the reading matter and the administering of the questionnaire. Therefore both groups knew what was expected and consented verbally to the research.

3.4.2 Respondents' freedom of choice

The learners in this research were not forced to participate (Brink, 1996:44). They were informed that participation in this study was not compulsory and that they could withdraw at any time. This information was also announced when the questionnaire was administered.

3.4.3 Anonymity and confidentiality

Every research respondent's anonymity was taken into account and the data remained confidential (Babbie & Mouton, 2001:523). Each respondent was provided with a number (Brink, 1996:45) and requested to remember his/her number and to use it again in the post-questionnaire. Data was kept private and confidential until data coding took place.

3.4.4 Benefit and risk

The learners where informed of the benefits and risks of participating in this research. The benefits included that they could gain more accurate sexual knowledge and enhance their positive sexual attitudes. Risks such as increased sexual curiosity or the encouragement of sexual experimentation could result in some participants. However, Brink (1996:45) points out that although all research involves some risks, in many cases the risk is minimal. Also, according to Baldo (1998:22), a sexuality education programme does not lead to earlier or increased sexual activity in young people. Thus, the researcher adhered to the correct principles and strived to reduce risks and maximise benefits, and conducted the research in a professional, scientific and respectful manner.

3.5 SUMMARY

In this chapter the methodology was discussed in detail, with the emphasis on the research design, research method, and ethical consideration. In chapter 4 a detailed discussion of the results follow.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1. INTRODUCTION

In this chapter, the information of results obtained from each respondent in the sample according to the specially designed questionnaire (Appendix G) is presented statistically, analysed, interpreted and discussed. By way of introduction, the basic structure and outlay of the questionnaire follows. The questionnaire consists of five sections, namely Section A: Biographical data; Section B: Relationships with family and opposite sex; Section C: Knowledge about sexuality; Section D: Experiences related to sexuality; and Section E: Attitudes about sexuality.

4.2. STATISTICAL ANALYSIS OF RESULTS AND LEVEL OF SIGNIFICANCE

A sample of learners was selected, as explained in chapter 3, and each learner was measured in respect of variables concerning aspects of knowledge and attitudes about sexuality.

The statistical analysis for the frequency of variables in section A, B and D of the questionnaire was done by means of post-test data which was surveyed after the sexuality education programme was prepared, because the responses of all the respondents could then be analysed.

Statistical analysis for frequency of each variable in section A, B and D (heading numbers from 4.3 to 4.6) was mostly conducted by cross-tabulation analysis, and the chi-square test was computed. In sections C and E (heading numbers from 4.7 to 4.8), t-test and paired t-test statistics were computed to look at the effect of differences of sexual knowledge and attitudes to determine whether the sexes differed significantly. Correlations (heading number 4.9) were determined to relate sexual knowledge, sexual attitudes and other variables.

Significance levels of 0.05 ($p<0.05$) were used in view of the statistical tests performed. All statistical analyses were performed using the SPSS 10.0 for Window (Statistical Package for the Social Science 10.0 for Window).

4.3. A DESCRIPTIVE PROFILE OF THE SAMPLE

The actual procedures and methods followed in selecting the sample of respondents have already been discussed in Chapter 3.

Before a description will be given of the effect of the sexuality education conducted by the researcher, the difference of personal data and circumstances between the experimental and control groups will be discussed. The statistical analysis for the frequency of variables in this section was post-test data that was surveyed after conducting the sexuality education programme.

4.3.1 Personal descriptive data of the respondents

The items in the personal descriptive data, namely sample size, sex, age, religion, having an own room and size of family, will be discussed. The items relating to the sample size, sex, age, and religion are shown in Table 4.1 and the items relating to having an own room and the size of the family are shown in Table 4.2. In these tables the experimental and the control groups are also compared regarding these items.

Table 4.1: Personal descriptive data of respondents relating to sex, age and religion

Frequency: N (%)

Items		Groups		Total	p-value+
		Experimental	Control		
Respondent	Total	193 (49.2)*	199 (50.8)*	392 (100)	
Sex	Male	98 (53.0)* (50.8)**	87 (47.0) (43.7)	185 (100) (47.2)	0.162
	Female	95 (45.9) (49.2)	112 (54.1) (56.3)	207 (100) (52.8)	
Age	15 years	177 (48.1) (91.7)	191 (51.9) (96.0)	368 (100) (93.9)	0.078
	16 years	16 (67) (8.3)	8 (33) (4.0)	24(100) (6.1)	
Religion	None	69 (45) (35.8)	83 (55) (41.7)	152 (100) (38.8)	0.050
	Christian	44 (46) (22.8)	52 (54) (26.1)	96 (100) (24.5)	
	Catholic	22 (74) (11.3)	8 (27) (4.0)	30 (100) (7.7)	
	Buddhism	58 (51) (30.1)	55 (49) (27.6)	113 (100) (28.8)	
	Others	0	1 (100) (0.5)	1 (100) (0.3)	

\+ : Chi-square test (the last column on the right hand side : relationship between groups and categories)

* : Row % (to compare experimental groups with control groups within a category)

** : Column % (to compare categories within a group)

As shown in Table 4.1, there are 193 respondents for statistical analysis for the experimental group (male: 98, female: 95) and 199 for the control group (male: 87, female: 112). Therefore the total number of respondents for statistical analysis in this study is 392. The total number of male and female respondents is as follows: males: 185 (47.2%) and females: 207(52.8%). This shows an even distribution between the two groups and the two sexes.

Most of the respondents are 15 years old (93.9%), which represented 91.7% of the experimental group and 96.0% of the control group. 6.1% are 16 year olds, representing

8.3% of the experimental group and 4.0% of the control group. The analysis relating to age does not show of a difference between the experimental and control groups ($p = 0.078$).

For the item on religion, two concepts, namely "Christian" and "Catholic", are used because both groups believe in God, but in Korea "Christians" are considered as belonging to the Reformed Church and "Catholics" as belonging to the Roman Catholic Church. The data showed that 38.8% of the respondents had no religion, 28.8% are Buddhists, 24.5% are Christian, and 7.7% are Catholic. There is a similar distribution of religion between the two groups, although there are more Catholics in the experimental group than the control group. The distribution of the religions shows no statistically significant difference (0.05), as indicated in Table 4.1. This is because a value of 0.05 can essentially be viewed as being the same for the two groups when $p<0.05$.

There is also a similar distribution of sex, age and religion between the two groups.

In certain items respondents were asked for personal data, like "having an own room", "number of people sharing room excluding self" and "size of family including self". 60.5% of respondents have their own room. The rest, namely 39.5%, share their room with another person. 84.5% of the respondents who share their room share it with 1 person; 14.2% with 2 persons and 1.3% were with 3 persons. The family, including the respondent, consists of 4 people (61.7%), 5 people (19.4%) and more than 6 people (6.9%) This data is shown in Table 4.2.

As shown in Table 4.2, most respondents have their own room or share their room with 1 person, and the family size of most respondents is 4 people. There also are no significant differences between the two groups in this regard.

Table 4.2: Personal data relating to rooms, number of people and size of the family

Frequency: N (%)

Items		Groups		Total	p-value+
		Experimental	Control		
Having your own room (N=392)	Yes	118 (49.8)* (61.1)**	119 (50.2) (59.8)	237 (100) (60.5)	0.786
	No	75 (48.4) (38.9)	80 (51.6) (40.2)	155 (100) (39.5)	
Number of people sharing room (excluding self) (N=159)	1 person	61 (46.6) (81.3)	70 (53.4) (87.5)	131 (100) (84.5)	0.151
	2 people	12 (54.5) (16.0)	10 (45.5) (12.5)	22 (100) (14.2)	
	3 people	2 (100) (2.7%)	0	2 (100) (1.3)	
Size of family including self (N=392)	1 person	1 (50.0) (0.5)	1 (50.0) (0.5)	2 (100) (0.5)	0.449
	2 people	4 (80.0) (2.1)	1 (20.0) (0.5)	5 (100) (1.3)	
	3 people	19 (47.5) (9.8)	21 (52.5) (10.6)	40 (100) (10.2)	
	4 people	113 (46.7) (58.5)	129 (53.3) (64.8)	242 (100) (61.7)	
	5 people	39 (51.3) (20.2)	37 (48.7) (18.6)	76 (100) (19.4)	
	Over 6 people	17 (63.0) (8.8)	10 (37.0) (5.0)	27 (100) (6.9)	

\+ : Chi-square test (relationship between groups and categories)

* : Row % (to compare experimental groups with control groups within a category)

** : Column % (to compare categories within a group)

4.3.2 Whom the respondents live with

Respondents were asked separately if they live with their parents and/or grandparents, and brothers and/or sisters. As shown in Table 4.3, most respondents (77.8%) live with both their parents; 4.6% live with one parent, and 2.1% live with grandparents. 8.5% of the respondents live with their parents and grandmother, and only a few respondents are living with one parent and a grandmother. Also, when asked if they live with brothers and/or sisters (excluding themselves), results showed that 45.9% live with their brothers only, and 41.6% live with their sisters only, while 12.5% live with both their brother and sister.

The biggest group (77.8%) thus lives with both parents, and most respondents have 1 brother/sister. Therefore, most respondents live in a normal living situation. The living situation of the two groups shows no difference, as illustrated in Table 4.3.

Table 4.3: Whom the respondents live with

Frequency: N (%)

Items		Groups		Total	p-value+
		Experimental	Control		
Living with parents / grand-parents	Both parents	150 (49.7)* (79.4)**	152 (50.3) (76.4)	302 (100) (77.8)	0.690
	Father only	10 (55.6) (5.3)	8 (44.4) (4.0)	18 (100) (4.6)	
	Mother only	7 (38.9) (3.7)	11 (61.1) (5.5)	18 (100) (4.6)	
	Grandparents	4 (50.0) (2.1)	4 (50.0) (2.1)	8 (100) (2.1)	
	Parents & grandparents	16 (48.5) (8.5)	17 (51.5) (8.5)	33 (100) (8.5)	
	Father & grandparents	2 (25.0) (1.1)	6 (75.0) (1.1)	8 (100) (1.1)	
	Mother & grandparents	0	1 (100) (0.5)	1 (100) (0.5)	
Total		189 (48.7) (100)	199 (51.3) (100)	388 (100) (100)	
Living with brother / sister.	Brother	57 (37.7) (40.7)	94 (62.3) (49.7)	151 (100) (45.9)	0.099
	Sister	68 (49.6) (48.6)	69 (50.4) (36.5)	137 (100) (41.6)	
	Brother & sister	15 (36.6) (10.7)	26 (63.4) (13.8)	41 (100) (12.5)	
Total		140 (42.5) (100)	189 (57.5) (100)	329 (100) (100)	

\+ : Chi-square test (relationship between groups and categories)
* : Row % (to compare experimental groups with control groups within a category)
** : Column % (to compare categories within a group)

The demographic data of respondents in Tables 4.1, 4.2 and 4.3 shows that the experimental and control groups are similar as far as population distribution, age, religious background, family size and living situation are concerned.

4.4 RELATIONSHIP WITH FAMILY AND THE OPPOSITE SEX

The relationship with family and the opposite sex of respondents will be discussed. The statistical analysis for the frequency of variables in this section was done by means of a post-test that was surveyed after the sexuality education programme.

4.4.1 Relationship with family

The relationship with family is assessed by looking at the relationship with the parents, the atmosphere in the home, the financial situation, marital status of parents, educational level of parents, and the sexuality education given by the parents.

4.4.1.1 Relationship with parents and the atmosphere in the home

The responses regarding the relationship with parents and the atmosphere in the home are summarised in Table 4.4. Respondents were asked about the relationship between themselves and their parents. 40.6% of the respondents described it as "good" (42.5% in experimental group; 38.7% in control group), 35.5% described it as "very good" (34.7% in the experimental group; 36.2% in the control group) and 22.7% described it as "average" (22.3% in the experimental group; 23.1% in the control group). 0.5% described it as "poor" and.8% as "very poor". The relationship between the respondents and their parents may thus be described as mostly good to very good, with no significant difference between the experimental and the control group ($p = 0.501$).

61.2% of the respondents experience the atmosphere in their home as "liberal and warm" (experimental group 63.7% and control group 58.8%), 22.7% as "conservative and warm" (experimental group 19.7%, control group 25.6%), 10.5% as "liberal and cold", and 5.6% as "conservative and cold". There is no real difference between the experimental and the control group in this regard ($p = 0.240$).

Therefore, it may be concluded that most respondents have good relationship with their parents and are living in warm homes with their family. The majority of respondents of both groups live in liberal homes. It may be presumed that the culture in homes in our society is getting more Westernised, rather than the traditional Confucianism that we have been used to in Korea.

Table 4.4: The relationship with parents and the atmosphere in the home

Frequency: N (%)

Items		Groups		Total	p-value+
		Experimental	Control		
The relationship with parents	Very poor	0	3 (100)* (1.5)**	3 (100) (0.8)	0.501
	Poor	1 (50.0) (0.5)	1 (50.0) (0.5)	2 (0.5) (0.5)	
	Average	43 (48.3) (22.3)	46 (51.7) (23.1)	89 (100) (22.7)	
	Good	82 (51.6) (42.5)	77 (48.4) (38.7)	159 (100) (40.6)	
	Very good	67 (48.2) (34.7)	72 (51.8) (36.2)	139 (100) (35.5)	
Total		193 (49.2) (100)	199 (50.8) (100)	392 (100) (100)	
The atmosphere in the home	Conservative & warm	38 (42.7) (19.7)	51 (57.3) (25.6)	89 (100) (22.7)	0.240
	Conservative & cold	14 (63.6) (7.3)	8 (36.4) (4.0)	22 (100) (5.6)	
	Liberal & Warm	123 (51.3) (63.7)	117 (48.8) (58.8)	240 (100) (61.2)	
	Liberal & Cold	18 (43.9) (9.3)	23 (56.1) (11.6)	41 (100) (10.5)	
Total		193 (49.2) (100)	199 (50.8) (100)	392 (100) (100)	

\+ : Chi-square test (relationship between groups and categories)
* : Row % (to compare experimental groups with control groups within a category)
** : Column % (to compare categories within a group)

4.4.1.2 The financial situation

The financial situation in the home of the respondents is shown in Table 4.5. 80.4% of respondents indicated an "average" financial situation; 13.5% "poor"; 4.8% "rich" and 1.3%

"very poor". There were no indications of "very rich". The financial situation between the two groups also showed no significant difference (p = 0.245). It seems therefore that most adolescents (80.4%) come from homes with an average income and that only a few are living in poverty.

Table 4.5: The financial situation in the home

Frequency: N (%)

Items		Groups		Total	p-value+
		Experimental	Control		
The financial situation in the home	Very poor	2 (40.0)* (1.0)**	3 (60.0) (1.5)	5 (100) (1.3)	0.245
	Poor	20 (37.7) (10.4)	33 (62.3) (16.6)	53 (100) (13.5)	
	Average	163 (51.7) (84.5)	152 (48.3) (76.4)	315 (100) (80.4)	
	Rich	8 (42.1) (4.1)	11 (57.9) (5.5)	19 (100) (4.8)	
	Very rich	0	0	0	
Total		193 (49.2) (100)	199 (50.8) (100)	392 (100) (100)	

\+ : Chi-square test (relationship between groups and categories)
* : Row % (to compare experimental groups with control groups within a category)
** : Column % (to compare categories within a group)

4.4.1.3 Marital status of parents

The marital status of respondents' parents is shown in Table 4.6. 84.1% of the respondents answered that their parents "live together" (experimental group 85.3%, control group 82.9%);. 3.1% that they are living apart; 8.2% that they are divorced; 2.1% that they have married a second time; and 2.3% that they are widowed. The marital status of respondents' parents did not differ significantly between the experimental and control group (p = 0.314). It may be observed that most parents of respondents (84.1%) live together.

Most respondents therefore are living in a warm, stable, middle class home with their parents and brother/sister.

Table 4.6: Marital status of parents

Frequency: N (%)

Items		Groups		Total	p-value+
		Experimental	Control		
Marital status of parents	Live together	163 (49.7)* (85.3)**	165 (50.3) (82.9)	328 (100) (84.1)	0.314
	Live separately	8 (66.7) (4.2)	4 (33.3) (2.0)	12 (100) (3.1)	
	Divorce	11 (34.4) (5.8)	21 (65.6) (10.6)	32 (100) (8.2)	
	Second marriage	5 (62.5) (2.6)	3 (7.5) (1.5)	8 (100) (2.1)	
	Widow / widower	4 (44.4) (2.1)	5 (55.6) (2.5)	9 (100) (2.3)	
	Others	0	1 (100) (0.5)	1 (100) (0.3)	
Total		191 (49.0) (100)	199 (51.0) (100)	390 (100) (100)	

\+ : Chi-square test (relationship between groups and categories)
* : Row % (to compare experimental groups with control groups within a category)
** : Column % (to compare categories within a group)

4.4.1.4 Educational level of parents

The educational level of respondents' parents is shown in Table 4.7 and shows that many parents had completed high school: 62.2% of fathers and 61.9% of mothers. 22.1% of fathers and 17.5% of mothers had further education and had completed university degrees; 10.9% of fathers and 16.7% of mothers completed middle school, and 1.9% of fathers and 1.3% of mothers completed post-graduate studies. There is no difference between the experimental and control group with regard to the educational level of the fathers and mothers ($p = 0.682$ and $p = 0.830$ respectively).

Therefore, most parents (62.2% fathers and 61.9% mothers) had completed high school. The high school educational level is known as the middle educational level in Korea. Thus, the educational level of most parents of respondents could be described as the middle level.

Table 4.7: Educational level of respondents' parents

Frequency: N (%)

Items		Groups		Total	p-value+
		Experimental	Control		
Educational level of father	No schooling	1 (0.5)*	0	1 (0.3)	0.682
	Elementary	5 (2.6)	5 (2.7)	10 (2.7)	
	Middle school	18 (9.4)	23 (12.4)	41 (10.9)	
	High school	118 (61.8)	116 (62.7)	234 (62.2)	
	University	44 (23.0)	39 (21.1)	83 (22.1)	
	Post graduate	5 (2.6)	2 (1.1)	7 (1.9)	
Total		191 (100)	185 (100)	376 (100)	
Educational level of mother	No schooling	1 (0.5)	0	1 (0.3)	0.830
	Elementary	5 (2.6)	4 (2.1)	9 (2.4)	
	Middle school	31 (16.3)	32 (17.0)	63 (16.7)	
	High school	121 (51.7)	113 (60.1)	234 (61.9)	
	University	30 (15.8)	36 (19.1)	66 (17.5)	
	Post graduate	2 (1.1)	3 (1.6)	5 (1.3)	
Total		190 (100)	188 (100)	378 (100)	

+ : Chi-square test (relationship between groups)
* : Column % (to compare categories within a group)

4.4.1.5 Whether or not they get sexuality education from their parents

The two aspects covered here is whether respondents received sexuality education from their parents and what the nature of the content was. Only 14.8% reported that they had received sexuality education from their parents; 85.2% received no sexuality education. These results are shown in Table 4.8. It is clear that parents are not very active in educating their children about sexuality.

Table 4.8: Sexuality education from parents of the respondents

Frequency: N (%)

Items	Experimental group		Control group		Total	p-value+
	Male	Female	Male	Female		
Yes	11 (11.2)*	24 (25.3)	4 (4.6)	19(17.0)	58 (14.8)	0.067
No	87 (88.8)	71 (74.7)	83 (95.4)	93 (3.0)	334(85.2)	
Total	98 (100)	95 (100)	87 (100)	112 (100)	392 (100)	

+ : Chi-square test (relationship between groups)
* : Column % (to compare categories within a group)

The contents of sexuality education that the 14.8% respondents received from their parents are provided in Table 4.9. These contents included "attitudes as femaleness or maleness" (42.1%); "relationship with the opposite sexes" (29.8%); "pregnancy and menstruation or nocturnal emission" (26.3%); and "sexual abuse" (1.8%). The Chi-square was computed to determine whether the experimental and control groups differed significantly. It was found that no significant difference existed (p = 0.575).

Table 4.9: Contents of sexuality education that respondents received from their parents

Frequency: N (%)

Items	Experimental group		Control group		Total	p-value+
	Male	Female	Male	Female		
Attitudes as femaleness/maleness	1 (11.1)*	14 (56.0)	0	9 (47.4)	24 (42.1)	0.575
Relationship with the opposite sex	6 (66.7)	5 (20.0)	3 (75.0)	3 (15.8)	17 (29.8)	
Pregnancy / menstru-ation / ejaculation	2 (22.2)	6 (24.0)	1 (25.0)	6 (31.6)	15 (26.3)	
Sexual abuse	0	0	0	1 (5.3)	1 (1.8)	
Total	9 (100)	25 (100)	4 (100)	19 (100)	57 (100)	

+ : For the Chi-square test : relationship between groups
* : Column % : to compare categories within a group

Table 4.4, 4.8 and 4.9 reveal that although most respondents had a good relationship with their parents, they did not receive sexuality education from their parents, this is especially true for males. The contents of sexuality education offered by their parents mostly centred on attitudes associated with femaleness or maleness, relationships with the opposite sex, and pregnancy and menstruation or ejaculation. The number of respondents who received sexuality education from their parents and the contents of this sexuality education reveal that conversation about sexuality is still difficult between parents and their children.

4.4.2 Relationship with the opposite sex

This section is concerned with aspects of "whether or not they have an experience of a relationship with the opposite sex", "the number of friend(s) of the opposite sex" the longest periods of relationships with the opposite sex", "behaviour that they are prepared to perform when they are dating", and "experiences with the opposite sex".

4.4.2.1 Respondents' experiences of having relationships with the opposite sex or not

Respondents were asked whether or not they had or are having a relationship with the opposite sex. As shown in Table 4.10, 43.0% of the experimental group and 38.2% of the control group indicated that they had or are having relationships with a friend of the opposite sex. There is no statistically significant difference between the two groups ($p = 0.332$). 40.6% of the respondents are thus involved in relationships. Female respondents in both groups had or are having noticeably more relationships with the opposite sex than the males. Respondents were also asked to indicate the number of friend(s) of the opposite sex currently involved in a friendship with them.

Table 4.10: Relationship with the opposite sex

Frequency: N (%)

Items	Experimental group			Control group			Total	p-value+
	Male	Female	Total	Male	Female	Total		
Have (or had)	34 (41.0)* (34.7)**	49 (59.0) (51.6)	83 (100) (43.0)	31 (41.8) (35.6)	45 (59.2) (40.2)	76 (100) (38.2)	159 (100) (40.6)	0.332
None	64 (58.2) (65.3)	46 (41.8) (48.4)	110 (100) (57.0)	56 (45.5) (64.4)	67 (54.5) (59.8)	123 (100) (61.8)	233 (100) (59.4)	
Total	98 (50.8) (100)	95 (49.2) (100)	193 (100) (100)	87 (43.7) (100)	112 (56.3) (100)	199 (100) (100)	392 (100) (100)	

+ : Chi-square test (relationship between groups and categories)
* : Row % (to compare experimental groups with control groups within a category)
** : Column % (to compare categories within a group)

In Table 4.11 the number of friends of the opposite sex is indicated: 67.1% respondents in the experimental group indicated 1~3; 22.9% indicated 4~6; 7.1% indicated 7~9; and 2.9% indicated more than 10. In the control group, 65.0% indicated 1~3; 17.5% indicated 4~6; 1.0% indicated 7~9 and 7.5% indicated more than 10. The majority had 1-3 relationships (66.0%). There was no significant difference between the two groups. Female respondents had or are having more relationship with the opposite sex than the males in the both experimental and control groups.

Table 4.11: The number of friends of the opposite sex with whom the respondents are in a personal relationship

Frequency: N (%)

Number	Experimental group			Control group			Total	p-value+
	Male	Female	Total	Male	Female	Total		
1~3	24 (80.0)*	23 (57.5)	47 (67.1)	23 (74.2)	29 (59.2)	52 (65.0)	99 (66.0)	0.325
4~6	6 (20.0)	10 (25.0)	16 (22.9)	5 (16.1)	9 (18.4)	14 (17.5)	30 (20.0)	
7~9	0	5 (12.5)	5 (7.1)	0	8 (16.3)	8 (1.0)	13 (8.7)	
over 10	0	2 (5.0)	2 (2.9)	3 (9.7)	3 (6.1)	6 (7.5)	8 (5.3)	
Total	30 (100)	40 (100)	70 (100)	31 (100)	49 (100)	80 (100)	150 (100)	

+ : Chi-square test (relationship between groups)
* : Column % (to compare categories within a group)

The results of relationships with the opposite sex in Table 4.10 and Table 4.11 reveal that almost half of the respondents have friend(s) of the opposite sex, and that females have more opposite-sex friends than males do. The number of friend(s) of the opposite sex of the respondents was mostly 1~3.

4.4.2.2 Relationship period with the opposite sex

Relationship periods for the two groups and for the two genders are shown in Table 4.12. There is no significant difference between the two groups or between the two genders as far as the relationship period with the opposite sex is concerned. The longest relationship period with the opposite sex for both males and females is more than two years, and the shortest relationships are less than 6 months.

Table 4.12: The longest relationship period with the opposite sexes

Frequency: N (%)

Period	Groups		Gender		Total
	Experim	Control	Male	Female	
1 mon.	20 (64.5)*	11 (35.5)	7 (22.6)	24 (77.4)	31(100)
3 mon.	14 (48.3)	15 (51.7)	15 (51.7)	14 (48.3)	29(100)
6 mon.	14 (35.0)	26 (65.0)	16 (40.0)	24 (60.0)	40(100)
9 mon.	3 (7.58)	5 (72.5)	5 (62.5)	3 (37.5)	8 (100)
1.5 years	13 (54.2)	11 (45.8)	14 (58.3)	10 (41.6)	24 (100)
2 years	3 (100)	0	1 (33.3)	2 (66.7)	3 (100)
over 2years	3 (37.5)	5 (62.5)	3 (37.5)	5 (62.5)	8 (100)
Total	70 (49.0)	73 (51.0)	61 (42.7)	82 (57.3)	143 (100)
p-value+	0.448		0.174		

+ : Chi-square test (relationship between groups or gender and categories)
* : Row % (to compare experimental groups with control groups within a category)

4.06% of the respondents had a relationship with the opposite sex, and 66% of them had 1~3 friends of the opposite sex. The longest relationship period with a friend of the opposite sex was less than 6 months for most respondents. It appears that the respondents start having

relationships with the opposite sex in the middle school period, which is a period characterised by an increase of sex hormones.

4.4.2.3 Extent of behaviour that respondents are willing to do when they are dating

Respondents were asked the extent of behaviour that they are willing to allow when they are dating. Boys and girls from both groups indicated "kissing" as the action they most allowed (51.8% for the experimental group; 41.2% for the control group). The rate of "kissing" in males and females of both groups is also higher than other actions when they are dating, as shown in Table 4.13. Other actions that they are willing to allow the opposite sex when they are dating include embracing (24.1%), putting arms around shoulders (9.2%), petting (7.7%), hand-holding (6.7%), coitus (= full sexual intercourse) (2.8%) and conversation (2.3%). It was observed that females desire "embracing" more than males (29.8% and 17.8% respectively) and that males desire "petting" more than females (13.0% and 2.9% respectively) when they are dating. The full extent of sexual behaviour towards the opposite sex went as far as "petting" for females, whereas it went as far as "coitus" for males. There is therefore a very significant difference between the males and females ($p<0.001$) in this regard for both the experimental and the control group. More males in the control group (4.5%) indicated coitus than in the experimental group (1.0%). It also represents a significant difference between the experimental and the control group ($p = 0.027$).

Thus, the extent of the behaviour that the respondents are willing to allow the opposite sex when they are dating is limited to kissing in most instances, but a few males wanted to have coitus while few females wanted to have petting. More respondents in the control group than the experimental group also wanted to have coitus with the opposite sex.

Therefore, it can be presumed that adolescents want to be involved with kissing with the opposite sex, and sexuality education should focus on serious sexual matters as coitus when adolescents are dating.

Table 4.13: Extent of behaviour that respondents are willing to do when they are dating

Frequency: N (%)

Allowed behaviour	Groups		Genders		Total
	Experim.	Control	Male	Female	
Conversation	6 (3.1)*	3 (1.5)	4 (2.2)	5 (2.4)	9 (2.3)
Hand-holding	8 (4.2)	18 (9.0)	11 (5.9)	15 (7.3)	26 (6.7)
Put arms on shoulders	12 (6.3)	24 (12.1)	14 (7.6))	22 (10.7)	36 (9.2)
Embracing	49 (25.7)	45 (22.6)	33 (17.8)	61 (29.8)	94 (24.1)
Kissing	99 (51.8)	82 (41.2)	85 (45.9)	96 (46.8)	181 (46.4)
Petting	13 (6.8)	17 (8.5)	24 (13.0)	6 (2.9)	30 (7.7)
Coitus interruptus	2 (1.0)	1 (0.5)	3 (1.6)	0	3 (0.8)
Coitus	2 (1.0)	9 (4.5)	11 (5.9)	0	11 (2.8)
Total	191 (100)	199 (100)	185 (100)	205 (100)	390 (100)
p-value+	0.027		0.000		

+ : Chi-square test (relationship between groups)
* : Column % (to compare categories within a group)

4.4.2.4 Experiences that respondents would like to have with the opposite sex

Experiences that respondents would like to have with the opposite sex are shown in Table 4.14. These results reflect more than one response per respondent because respondents were asked to mark all experiences of physical contact which they had with the opposite sex. The total percentage of experiences with the opposite sex were hand-holding (56.4%), putting arms around shoulders (45.4%), embracing (31.4%), kissing (20.4%), petting (6.4%), coitus interruptus (1.0%), STDs (0.8%), pregnancy (0.3%), and abortion (0.5%).

From Table 4.14 it is clear that there is no statistically significant difference regarding any item between the two groups. However, when males and females are compared it is

observed that females had more experiences of "hand-holding" and "kissing" than males, whereas males had more experiences of "petting", "coitus interruptus", "coitus", "STDs", "pregnancy" and "abortion" than females. The categories where there are significant differences between the males and females are "putting arms on the shoulders" ($p = 0.001$) and "coitus interruptus" ($p = 0.033$), as females experienced more instances of putting arms on shoulders and the males experienced more instances of coitus interruptus.

When Table 4.14 is analysed, it could be observed that the males have more serious sexual experiences than females.

Table 4.14: Experiences that respondents would like to have with the opposite sex

Frequency: N (%)

Experience	Groups (N=392)			Genders (N=392)			Total
	Experi.	Control	p-value+	Male	Female	p-value+	
Hand-holding	104 (47.1)*	117 (52.9)	0.327	95 (43.0)	126 (57.0)	0.058	221 (56.4)**
Put arms on shoulders	85 (47.8)	93 (52.2)	0.592	67 (37.6)	111 (62.4)	0.001	178 (45.4)
Embracing	63 (51.2)	60 (48.8)	0.595	50 (40.7)	73 (59.3)	0.079	123 (31.4)
Kissing	45 (56.3)	35 (43.8)	0.159	34 (42.5)	46 (57.5)	0.346	80 (20.4)
Petting	11 (44.0)	14 (56.0)	0.588	14 (56.0)	11 (44.0)	0.362	25 (6.4)
Coitus interruptus	1 (25.0)	3 (75.0)	0.330	4 (100)	0	0.033	4 (1.0)
Coitus	3 (50.0)	3 (50.0)	0.970	5 (83.3)	1 (16.7)	0.074	6 (1.5)
STDs	1 (33.3)	2 (66.7)	0.580	3 (100)	0	0.066	3 (0.8)
Pregnancy	0	1 (100)	0.324	1 (100)	0	0.290	1 (0.3)
Abortion	1 (50.0)	1 (50.0)	0.983	2 (100)	0	0.134	2 (0.5)

\+ : Chi-square test (relationship between groups)
* : Row % (to compare categories within a group)
** : Responding % of 392 respondents

In Tables 4.13 and 4.14, the extent of the behaviour that the respondents are willing to allow when they are dating and experiences they would like to have with the opposite sex, are shown to be kissing (46.4%); embracing (24.1%); putting arms around the shoulders (9.2%);

petting (7.7%); hand-holding (6.7%); sexual intercourse (2.8%); conversation (2.3%); and coitus interruptus (0.8%). However, the actual experiences with the opposite sex are shown to be hand-holding (56.4%); putting arms around the shoulders (46.4%); embracing (31.4%); kissing (20.4%); and petting (6.6%). Also, very few respondents have experienced incidents such as sexual intercourse (1.5%), STDs (0.8%), pregnancy (0.3%), and abortion (0.5%). It seems that this age group practices safe behaviour, relative to other studies in Korea. This is even more clearly visible in the extent of behaviour they are willing to engage in with the opposite sex and their experiences with the opposite sex (Table 4.15)

Table 4.15: The extent of behaviour that respondents are willing to do when they are dating and experiences they would like to have with the opposite sex

Frequency: N (%)

Items	Behaviour	Total
Extent of behaviour when dating (N=390)	Conversation	9 (2.3)*
	Hand-holding	26 (6.7)
	Put arms on shoulders	36 (9.2)
	Embracing	94 (24.1)
	Kissing	181 (46.4)
	Petting	30 (7.7)
	Coitus interruptus	3 (0.8)
	Full sexual intercourse	11 (2.8)
Experiences with the opposite sex (N = 392)	Hand-holding	221 (56.4)
	Put arms on shoulders	178 (45.4)
	Embracing	123 (31.4)
	Kissing	80 (20.4)
	Petting	25 (6.4)
	Coitus interruptus	4 (1.0)
	Full sexual intercourse	6 (1.5)
	STDs	3 (0.8)
	Pregnancy	1 (0.3)
	Abortion	2 (0.5)

* : Column % (to compare categories in total number of respondents)

Responses to a question about their feelings about the experiences with the opposite sex revealed that most respondents (96.1%) felt that it was "good", while only a few (3.9%)

answered that it was "not good". There is no significant difference between the two groups or between the genders in the two groups. The results are portrayed in Table 4.16.

It can be presumed that the respondents who felt that their experiences were "good: did not have any serious sexual experiences. However, the fact that 3.9% of the respondents indicated that it was "not good" may be an indication that they had any serious sexual experiences, like coitus, STDs, pregnancy, or abortion. The serious sexual experiences might be emotionally shocking and physically damaging to adolescents.

Table 4.16: Feelings about experiences that respondents would like to have with the opposite sex

Frequency: N (%)

Feeling about experiences	Groups		Gender		Total
	Experim	Control	Male	Female	
Good	75 (50.3)* (96.2)**	74 (49.7) (96.1)	80 (53.7) (97.6)	69 (46.3) (94.5)	149 (100) (96.1)
Not good	3 (50.0) (3.8)	3 (50.0) (3.9)	2 (33.3) (2.4)	4 (66.7) (3.5)	6 (100) (3.9)
Total	78 (50.3) (100)	77 (49.7) (100)	82 (52.9) (100)	73 (47.1) (100)	155 (100) (100)
p-value+	0.987		0.327		

\+ : Chi-square test (relationship between groups or genders and categories)
* : Row % (to compare experimental groups with control groups within a category)
** : Column % (to compare categories within a group)

4.4.3 Sexual matters and sources of sexual information

The following sections will focus on what sexual information the respondents have, and on where they get this sexual information.

4.4.3.1 Reading about sexual matters

As it is shown in Table 4.17, most respondents (56.4%) indicate that they read about sexual matters to an average degree, but males do more so than females ($p<0.001$). The control

group expressed a slightly higher interest in the subject than the experimental group, but the difference is not significant (p=0.079).

Table 4.17: How much interest does the respondents have in reading about sexual matters

Frequency: N (%)

Degree	Groups		Genders		Total
	Experim	Control	Male	Female	
None	22 (51.2)* (11.4)	21 (48.8) (10.6)	15 (34.9) (8.1)	28 (65.1) (13.5)	43 (100) (11.0)
Little	41(48.8)** (21.2)	43 (51.2) (21.6)	28 (33.3) (15.1)	56 (66.7) (27.1)	84 (100) (21.4)
Average	117 (52.9) (60.6)	104(47.1) (52.3)	110 (49.8) (59.5)	111 (50.2) (53.6)	221(100) (56.4)
Much	10 (27.8) (5.2)	26 (72.2) (13.1)	24 (66.7) (13.0)	12 (33.3) (5.8)	36 (100) (9.2)
Very much	3 (37.5) (1.6)	5 (62.5) (2.5)	8 (100) (5.7)	0	8 (100) (2.0)
Total	193 (100) (100)	199 (100) (100)	185 (47.2) (100)	207 (52.8) (100)	392 (100) (100)
p-value+	0.079		0.000		

\+ : Chi-square test (relationship between groups or genders and categories)
* : Row % (to compare experimental groups with control groups within a category)
** : Column % (to compare categories within a group)

4.4.3.2 Sources of sexual information

Sources of sexual information are divided into 10 items, namely friends, seniors, teachers, father, mother, brother/sister, television, Internet, magazines, and books. The option "others" was eliminated because nobody elected it.

The extent to which the two groups obtain their sexual information from friends, mothers, TV, Internet, magazines and books does not differ significantly. However, there is a significant difference between the two groups with regard to getting sexual information from sources such as seniors, teachers, fathers and brothers/sisters. The experimental group got more sexual information from those sources than the control group. These results are shown in Table 4.18.

Table 4.18: . Sources of sexual information

Frequency: N (%)

Items	Degree	Experimental group		Control group		Total	P value+
		Male	Female	Male	Female		
Friends	None	21 (21.4)	18 (18.9)	12 (13.8)	18 (16.1)	69 (17.6)	0.477
	Little	18 (18.4)	18 (18.9)	10 (11.5)	23 (16.1)	69 (17.6)	
	Average	37 (37.8)	38 (40.0)	42 (48.3)	45 (40.2)	162 (41.3)	
	A lot	22 (22.4)	21 (22.1)	23 (26.4)	26 (23.2)	92 (23.5)	
Senior	None	68 (69.4)	60 (63.2)	72 (82.8)	102 (91.1)	302 (77.0)	0.000
	Little	9 (9.2)	19 (20.0)	4 (4.6)	8 (7.1)	40 (10.2)	
	Average	17 (17.3)	11 (11.6)	10 (11.5)	1 (0.9)	39 (9.9)	
	A lot	4 (4.1)	5 (5.3)	1 (1.1)	1 (0.9)	11 (2.8)	
Teacher	None	29 (29.6)	21 (22.1)	22 (25.3)	24 (21.4)	96 (24.5)	0.000
	Little	23 (23.5)	15 (15.8)	39 (44.8)	40 (35.7)	117 (29.8)	
	Average	30 (30.5)	37 (38.9)	24 (27.6)	40 (35,7)	139 (33.2)	
	A lot	16 (16.3)	22 (23.2)	2 (2.3)	8 (7.1)	49 (12.5)	
Father	None	69 (70.4)	69 (72.6)	78 (89.7)	101 (90.2)	317 (80.9)	0.000
	Little	21 (21.4)	14 (14.7)	9 (10.3)	7 (6.3)	51 (13.0)	
	Average	7 (7.1)	9 (9.5)	0	4 (3.6)	20 (5.1)	
	A lot	1 (1.0)	3 (3.2)	0	0	4 (1.0)	
Mother	None	68 (69.4)	62 (65.3)	74 (85.1)	81 (72.3)	285 (72.7)	0.047
	Little	21 (21.4)	17 (17.9)	12 (13.8)	18 (16.1)	68 (17.3)	
	Average	8 (8.2)	13 (13.7)	1 (1.1)	8 (7.1)	30 (7.7)	
	A lot	1 (1.0)	3 (3.2)	0	5 (4.5)	9 (2.3)	
Brother / Sister	None	70 (71.4)	69 (72.6)	75 (86.2)	89 (79.5)	303 (77.3)	0.017
	Little	18 (18.4)	12 (12.6)	8 (9.2)	19 (17.0)	57 (14.5)	
	Average	8 (8.2)	13 (13.7)	3 (3.4)	4 (3.6)	28 (7.1)	
	A lot	2 (2.0)	1 (1.1)	1 (1.1)	0	4 (1.0)	
TV	None	33 (33.7)	36 (37.9)	18 (20.7)	38 (33.9)	125 (31.9)	0.312
	Little	26 (26.5)	24 (25.3)	26 (29.9)	37 (33.0)	113 (28.8)	
	Average	34 (34.7)	27 (28.4)	32 (36.8)	30 (26.8)	123 (31.4)	
	A lot	5 (5.1)	8 (8.4)	11 (12.6)	7 (6.3)	31 (7.9)	
Internet	None	19 (19.4)	33 (34.7)	7 (8.0)	46 (41.1)	105 (26.8)	0.095
	Little	26 (26.5)	31 (32.6)	15 (17.2)	29 (25.9)	101 (25.8)	
	Average	37 (8.2)	22 (23.2)	35 (40.2)	24 (21.4)	118 (30.1)	
	A lot	16 16.3)	9 (9.5)	30 (34.5)	13 (11.6)	68 (17.3)	
Magazine	None	55 (56.1)	60 (63.2)	47 (54.0)	85 (75.9)	247 (63.0)	0.484
	Little	30 (30.6)	18 (18.9)	30 (34.5)	15 (13.4)	93 (23.7)	
	Average	11 (11.2)	10 (10.5)	5 (5.7)	11 (9.8)	37 (9.4)	
	A lot	2 (2.0)	7 (7.4)	5 (5.7)	1 (0.9)	15 (3.8)	
Books	None	51 (52.0)	45 (47.4)	44 (50.6)	67 (59.8)	207 (52.8)	0.187
	Little	27 (27.6)	25 (26.3)	26 (29.9)	32 (28.6)	110 (28.1)	
	Average	15 (15.3)	17 (17.9)	10 (11.5)	9 (8.0)	51 (13.0)	
	A lot	5 (5.1)	8 (8.4)	7 (8.0)	4 (3.6)	24 (6.1)	
Total		98 (100)	95 (100)	87 (100)	112 (100)	392 (100)	

+ : Chi-square test (relationship between groups)

* : Column % (to compare categories within a group)

The above results are simplified in Table 4.19, in that only "Average" and "A lot" are reflected. Table 4.19 therefore is a summary that covers "Average", "A lot", the sum of above-mentioned frequencies and the % of the frequency of the total respondents within a category.

In Table 4.19 it can be seen that the respondents get their sexual information from the following sources, in order of frequency: friends (23.6%), Internet (18.0%), teachers (17.3%), television (14.9%), books (7.2%), magazines (5.0%), seniors (4.8%), mothers (3.8%), brothers/sisters (3.1%), and fathers (2.3%). It shows that respondents still get a lot of sexual information from their friends. The other important sources are the Internet, teachers and television. It is good that the respondents can get sexual information from teachers (17.3%), to a greater extent than indicated in the literature mentioned in Chapter 2. It was also observed that respondents got very little sexual information from seniors, mothers, brothers/sisters and fathers. Fathers were the least prominent source of sexual information.

It may be argued that adolescents gain their sexual knowledge from friends and the Internet because of the lack of information on sexuality education at school. Furthermore, they do not have conversations about sex with their family, especially their fathers.

Table 4.19: Simplified illustration of sources of sexual information

N = 392

Source	Degree*		Total
	Average	A lot	Frequency (%**)
Friends	162 (41.3)	92 (23.5)	244 (23.6)
Seniors	39 (9.9)	11 (2.8)	50 (4.8)
Teachers	139 (33.2)	49 (12.5)	179 (17.3)
Father	20 (5.1)	4 (1.0)	24 (2.3)
Mother	30 (7.7)	9 (2.3)	39 (3.8)
Brother/Sister	28 (7.1)	4 (1.0)	32 (3.1)
Television	123 (31.4)	31 (7.9)	154 (14.9)
Internet	118 (30.1)	68 (17.3)	186 (18.0)
Magazines	37 (9.4)	15 (3.8)	52 (5.0)
Books	51 (13.0)	24 (6.1)	75 (7.2)

* : "Average" and "A lot" option which are moved in from Table 4.18

** : Column % (to compare sources of sexual information within a category)

4.5. RESPONDENTS' EXPERIENCES RELATED TO SEXUALITY

This section relates to Section D of the questionnaire. It discusses respondents' experiences of sexual matters, such as nocturnal emission or menstruation, masturbation, sexual problems, counselling for solving sexual problems, and sexual experiences.

4.5.1 Nocturnal emission in males and menstruation in females

The respondents were asked whether or not they had experienced nocturnal emission or menstruation. As shown in Table 4.20, 60.9% of male respondents indicated that they had experienced nocturnal emission, and 99.0% of female respondents indicated that they are menstruating. Two female respondents (1.0%) indicated that they do not menstruate. Sexual development thus was further advanced in girls (99.0%) than in boys (60.9%) of the age of 15.

Male respondents reported that they had experienced their first nocturnal emission between the ages of 12 and 15 years, with 14 being the most common age (43.4%), followed by 13 (34.0%). Female respondents indicated that the age of the onset of menstruation was between 11 and 14, with 13 being the most common age (43.8%), followed by 12 (26.4%). This is illustrated in Table 4.20.

It is apparent from Table 4.20 that females, as can be expected, experienced menstruation at an earlier age than the males experienced nocturnal emission. The female respondents' observation that their secondary sex characteristics had appeared is in line with literature which reports that the age of the first menstruation in female adolescents is 13. Most females had experienced menstruation at the age of 15, although only 2/3 of the males had experienced nocturnal emission.

These findings indicate that adolescents need to have knowledge about the relations between sexual maturation phenomena and sex hormones.

Table 4.20: Experience of nocturnal emission in males and menstruation in females

Frequency: N (%)

Items		Groups				Total	
		Experimental		Control		Experi. & Contr.	
		Male	Female	Male	Female	Male	Female
Nocturnal / menstrual	Yes	59 (60.8)*	93 (97.9)	53 (60.9)	112 (100)	112 (60.9)	205 (99.0)
	None	38 (39.2)	2 (2.1)	34 (39.1)	0	72 (39.1)	2 (1.0)
Total		98 (100)	95 (100)	87 (100)	112 (100)	184 (100)	207 (100)
p-value+		0.344				0.000	
Age	10 yr.	0	0	1 (1.9)	0	1 (0.9)	0
	11 yr.	0	1 (1.1)	0	11 (9.9).	0	12 (6.0)
	12 yr.	3 (11.1)	24 (26.7)	3 (5.8)	29 (26.1)	6 (5.7)	53 (26.4)
	13 yr.	19 (35.2)	37 (41.1)	17 (32.7)	51 (45.9)	36 (34.0)	88 (43.8)
	14 yr.	23 (42.6)	24 (26.7)	23 (44.2)	20 (18.0)	46 (43.4)	44 (21.9)
	15 yr.	8 (14.8)	4 (4.4)	8 (15.4)	0	16 (15.1)	4 (2.0)
	16 yr.	1 (1.9)	0	0	0	1 (0.9)	0
Total		54 (100)	90 (100)	52 (100)	111 (100)	106 (100)	201 (100)
p-value+		0.067				0.000	

+ : Chi-square test (relationship between groups or gender)
* : Column % (to compare categories within a group)

4.5.2 Masturbation

Respondents were asked whether or not they had experienced masturbation. As expected, male respondents indicated the experience of masturbating more than females did. In Table 4.21 the chi-square and p-values were computed to determine whether the groups differ significantly.

From Table 4.21 it can be observed that 68.6% of males had masturbated, compared to 7.7% of females. It is apparent that there is a significant difference between males and females in this regard ($p<0.001$), although not between the experimental and control group ($p=0.642$). This finding supports the finding in literature, namely that males masturbate much more often than females.

Most males indicated that they had first experienced masturbation between the ages of 12 and 16, even though one male indicated this age to have been 10 years. Most males indicated 13 (33.3%) and 14 (40.2%). On the other hand, females indicated the ages of 14 (58.3%) and 15 (33.3%). However, there is no significant difference between male and female respondents who indicated the age of first masturbating (p=0.300); and there is no significant difference between the experimental and control group either (p=0.077, or a significance level of <0.5). Thus, the age of 14 seems to be the average age for the first experience of masturbation. It is therefore evident that secondary sex characteristics in females appear faster than in males, but masturbation in males appears at a younger age and more frequently than in females.

Almost 70% of males had the experience of masturbation, with 10% of them reporting 12 years as the age of their first experience. However, there is a sudden increase in the number of incidences of masturbation from the age of 13.

Table 4.21: The experience of masturbation and the age of first experience

Frequency: N (%)

Items		Groups				Total	
		Experimental		Control		Experi. & Control	
		Male	Female	Male	Female	Male	Female
Mastur-bation	Yes	56 (59.6)*	10 (10.5)	68 (78.2)	6 (5.4)	124 (68.5)	16 (7.7)
	None	38 (40.4)	85 (89.5)	19 (21.8)	106 (94.6)	57 (31.5)	191 (92.3)
Total		94 (100)	95 (100)	87 (100)	112 (100)	181 (100)	207 (100)
p-value+		0.642				0.000	
Age of first experience	10 yr.	0	0	1 (1.5)	0	1 (0.9)	0
	11 yr.	0	0	0	0	0	0
	12 yr.	3 (5.9)	0	7 (10.6)	0	10 (8.5)	0
	13 yr.	17 (3.3)	1 (14.3)	22 (33.3)	0	39 (33.3)	1 (8.3)
	14 yr.	17 (33.3)	3 (42.9)	30 (45.5)	4 (80.0)	47 (40.2)	7 (58.3)
	15 yr.	13 (25.5)	3 (42.9)	6 (9.1)	1 (20.0)	19 (16.2)	4 (33.3)
	16 yr.	1 (2.0)	0	0	0	1 (0.9)	0
Total		51 (100)	7 (100)	66 (100)	5 (100)	117 (100)	12 (100)
p-value+		0.077				0.300	

+ : Chi-square test (relationship between groups or genders and categories)

* : Column % (to compare categories within a group)

4.5.3 Sexual problems

This section will focus on whether or not respondents have sexual problems, and on the kinds of sexual problems they have.

4.5.3.1 Different sexual problems and its kinds

The respondents were asked whether or not they had (or have) any sexual problems. It is indicated in Table 4.22 that only 17.1% of the respondents indicated that they have sexual problems. The sexual problems were analysed by using cross-tabulation analysis between the experimental and control group. The result of the sexual problems between the experimental and control groups shows no significant difference ($p = 0.589$), but 22.2% of males and 12.64% of females indicated that they have sexual problems. The issue of experiencing sexual problems represents a significant difference between males and females ($p = 0.012$), in that males have more sexual problems than females. Table 4.22 shows the frequencies and percentages of male and female respondents and the p-values that were computed on Person x^2 as shown.

In addition, respondents were asked to specify the kinds of sexual problems they experience, if any (Table 4.22). Table 4.22 indicates that 67 males who have sexual problems, specified these problems to be the following, in order of frequency: sexual desire (28.3%), masturbation (25.4%), genital organs (19.4%), STDs (10.4%), petting (6.0%), coitus or breasts (each 4.5%), and pregnancy and abortion (1.5%). Female respondents in turn mostly indicated problems with breasts (32.8%), masturbation (7.5%), and sexual desire or genital organs (each 1.5%). It may therefore be argued that females have a possible pre-occupation with breasts, while males are possibly preoccupied with genital organs, sexual desire, and masturbation. Only a few males indicated STDs, petting, coitus, and pregnancy and abortion as their sexual problems.

The incidence of sexual problems experienced by the research population is lower than the incidence reported in Korean literature (Kye, 1999:30-31; Kye & Moon, 1999:133, 150; Moon, 2000:417). Furthermore, the respondents did not experience problems with relationship with the opposite sex, sexual abuse, rape, contraception, and pregnancy, which are reported in the literature.

Table 4.22: The incidence of sexual problems and the kinds of sexual problems

Frequency: N (%)

Items		Gender		Total	p- value+
		Male	Female		
Sexual problem	Yes	41 (61.2)* (22.2)**	26 (38.8) (12.6)	67 (100) (17.1)	0.012
	No	144 (44.3) (77.8)	181 (55.7) (87.4)	325(100) (82.9)	
Total (%)		185 (100)	207 (100)	392 (100)	
Kinds of sexual problem (N = 67)	Breasts	3 (4.5)***	22 (32.9)***	25 (37.3)***	0.000
	Genital organ	13 (19.4)	1 (1.5)	14 (20.9)	0.001
	Sexual desire	19 (28.3)	1 (1.5)	20 (29.9)	0.000
	Masturbation	17 (25.4)	5 (7.5)	22 (32.8))	0.004
	Petting	4 (6.0)	0	4 (6.0))	0.035
	Coitus	3 (4.5)	0	3 (4.5))	0.068
	STDs	7 (10.4)	0	7 (10.4))	0.005
	Pregn. & abort.	1 (1.5)	0	1 (1.5))	0.621

\+ : Chi-square test (relationship between groups)
* : Row % (to compare groups within a category)
** : Column % (to compare categories within a group)
*** : response % of 67 respondents

4.5.3.2 Counselling for sexual problems

The respondents were also asked whom they want to counsel them if they have any sexual problems. The results are shown in Table 4.23, with computed chi-square and p-values to determine whether the groups differed significantly.

From Table 4.23 it is apparent that a friend was indicated as the most preferred person for counselling. Most of the control group indicated friends (38.7%), whereas most of the experimental group indicated a counsellor (36.5%) rather than a friend (34.9%). Furthermore, males prefer a counsellor (34.8%) rather than a friend (34.2%), while females prefer friends (39.1%). In order of preference, males would discuss a sexual problem with a counsellor (34.8%), friends (34.2%), nobody (18.5%), fathers (6%), mothers (3.3%), teachers (2.7%), brothers/sisters (0.5%), and no senior. Females in turn preferred friends (39.1%), mothers (19.3%), counsellors (18.4%), nobody (17.9%), brothers/sisters (3.4%), teachers (1.4%), seniors (0.5%), and no fathers. It shows a significant difference between males and females ($p<0.001$). Moreover, males indicated "father" more than females and females indicate "mother" more than males. Males also did not indicate "senior" and females did not indicate "father"; and males wanted to counsel with a counsellor more than females (34.8% vs. 18.4%). The control group mostly prefers friends (38.7%), then nobody (26.1%), and thirdly a counsellor (16.1%), whereas the experimental group mostly prefers a counsellor (36.5%), and then friends (34.9%) There is a significant difference between the experimental and control group on the items "keeping to self" and "counsellor", and between males and females on the items "mother" and "counsellor".

Thus, it can be observed that the experimental group would prefer to counsel with a counsellor, and the control group with friends; and that within the family males wanted to counsel with their father, whereas females wanted to counsel with their mother.

In conclusion, sexuality education seems to guide adolescents towards consulting a counsellor when they experience sexuality education, whereas those who have not had sexuality education tried to find the solution alone or with friends. Males wanted to counsel with their teacher or a counsellor more than females, and when they had to discuss the matter with their parents, they wanted counselling with parents of the same sex. It may be concluded that females are more open-minded towards parents and males towards counsellors.

Table 4.23: Whom respondents want to consult about sexual problems

Frequency: N (%)

With whom you want to counsel	Groups		Genders		Total
	Experi.	Control	Male	Female	
Keep to self	19 (9.9)*	52 (26.1)	34 (18.5)	37 (17.9)	71 (18.2)
Friend(s)	67 (34.9)	77 (38.7)	63 (34.2)	81 (39.1)	144 (36.8)
Father	5 (2.6)	6 (3.0)	11 (6.0)	0	11 (2.8)
Mother	22 (11.5)	24 (12.1)	6 (3.3)	40 (19.3)	46 (11.8)
Brother/ Sister	4 (2.1)	4 (2.0))	1 (0.5)	7 (3.4)	8 (2.0)
Senior(s)	1 (0.5)	0	0	1 (0.5)	1 (0.3)
Teacher(s)	4 (2.1)	4 (2.0)	5 (2.7)	3 (1.4)	8 (2.0)
Counsellor	70 (36.5)	32 (16.1)	64 (34.8)	38 (18.4)	102 (26.1)
Total	192 (100)	199 (100)	184 (100)	207 (100)	391 (100)
p-value+	0.000		0.000		

+ : Chi-square test (relationship between groups)
* : Column % (to compare categories within a group)

In Table 4.24 there was no significant difference (p = 0.071) between the two groups before sexuality education, but after sexuality education it can be observed that many respondents in the experimental group changed from "keep to self" to "counsellor". Therefore, it appears that after the sexuality education programme, respondents in the experimental group were aware that counselling with a counsellor is a better option.

Table 4.24: Comparing the result of the pre- and post-test on whom students want to counsel about sexual problems

Frequency: N (%)

With whom you want to counsel	Pre-test			Post-test		
	Experi.	Control	p-value+	Experi.	Control	p-value+
Keep to self	36(36.7)*	36(36.7)	0.071	12(12.0)	25(25.5)	0.027
Friend(s)	38(38.7)	38(38.8)		37(37.0)	41(41.8)	
Father	3(3.0)	2(2.0)		2(2.0)	1(1.0)	
Mother	16(16.0)	12(12.2)		9(9.0)	12(12.2)	
Brother/ Sister	1(1.0)	3(3.1)		2(2.0)	3(3.1)	
Senior(s)	0	0		1(1.0)	0	
Teacher(s)	0	0		2(2.0)	0	
Counsellor	19(19.0)	7(7.1)		35(35.0)	16(16.3)	
Total (%)	100(100)	98(100)		100(100)	98(100)	

+ : Chi-square test (relationship between)
* : Column % (to compare categories within a group)

4.5.3.3 Confiding in parents about sexual problems

The respondents were asked whether or not they can talk with their parents about sexual problems. 37.3% of the respondents indicated that they can talk to their parents about sexual problems. 29.3% of the males and 44.4% of the females in the survey agreed with this. Therefore, more females than males indicated that they can talk to their parents about their sexual problems (p=0.002). The reason for this might be that females have a closer relationship with their mothers than males do (Table 4.25).

The majority of the respondents (62.7%) could not discuss their sexual problems. This was the case for 70.7% of the males and for 55.6% of the females, despite having a good relationship with their parents in a liberal home (Table 4.4). Their difficulty to discuss sexual matters with their parents may be ascribed to the fact that such conversations never took place in their homes in early childhood.

Table 4.25: Respondents' ability to discuss their sexual problems with their parents

I can talk to my parents about my sexual problems	Gender			p-value+
	Frequency: N (%)			
	Male	Female	Total	
Yes	54 (29.3)*	92 (44.4)	146 (37.3)	0.002
No	130 (70.7)	115 (55.6)	245 (62.7)	

+ : Chi-square test (relationship between genders)
* : Column % (to compare categories within a group)

4.5.4 Respondents' experience of sexual intercourse and ideas of when to start having sexual intercourse

Respondents were asked whether or not they had experienced sexual intercourse. Six respondents (1.5%) indicated "yes" to the question: five of these respondents were male and one was female. The results are shown in Table 4.26.

In Table 4.26 it appears that only one male provided the age of first sexual intercourse (15 years). Compared to other studies, this represents quite a low percentage of adolescents involved in sexual intercourse at the age of 15.

Table 4.26: Experience of sexual intercourse and age of first sexual intercourse

Frequency: N (%)

Items		Groups			
		Male	Female	Total	p-value+
Experience of sexual intercourse	Yes	5 (2.7)*	1 (0.5)	6 (1.5)	0.075
	No	180 (97.3)	205 (99.5)	385 (98.5)	
Total		185 (100)	206 (100)	391 (100)	
Age of 1st sex	15 yr.	1 (100)	0	1 (100)	

+ : Chi-square test (relationship between genders)
* : Column % (to compare categories within a group)

A question on the reason for having first sexual intercourse was given to the respondents who had experienced sexual intercourse. It is shown in Table 4.27 that the results show more

than one response per respondent. A p-value could not be computed because there were not enough responses.

From Table 4.27 it is apparent that the reason for indulging in sexual intercourse was "curiosity". 4 (3 males and 1 female) of the 6 respondents gave this reason. Other reasons were sexual attraction, fear of losing a partner, peer group pressure, and loneliness. Thus, it was observed that curiosity is the most important reason for adolescents to have sexual intercourse.

Table 4.27: Reason for having indulged in sexual intercourse

Frequency: N (%)

The reason for having sexual intercourse	Gender		Total
	Male	Female	
Curiosity	3 (75.0)*	1 (25.0)	4 (100)
Sexual attraction	1 (100)	0	1 (100)
Fear of losing a partner	1 (100)	0	1 (100)
Peer group stimulate	1 (100)	0	1 (100)
Loneliness	1 (100)	0	1 (100)
Rape and Money	0	0	0

* : Column % (to compare categories within a group)

Respondents were also asked why they had not yet indulged in sex. They had to respond by indicating "afraid of pregnancy", "afraid of STDs", "religious belief", "lack of opportunity", "keeping virginity", and other reasons. Some respondents answered that they were "still young", "I don't want to have sex", and that it "feels like dirty behaviour" (Table 4.28).

In Table 4.28 it is apparent that 61.2% (240 of 392) respondents indicated "keeping virginity". This was the case for 49.3% of the males and 72.0% of the females. Other reasons indicated by male respondents, in order of frequency, were lack of opportunity (28.6%), afraid of STDs (13.0%), afraid of pregnancy (13.0%), and religious belief (4.9%).

Other reasons included not desiring sexual intercourse (13.0%), being still young (10.8%), and feeling dirty (0%). Female respondents also indicated fear of pregnancy (29.5%), fear of STDs (21.2%), lack of opportunity (8.7%), and religious belief (5.3%). "Other" reasons also included being still young (12.6%), feeling dirty (4.8%), and not desiring sexual intercourse (3.4%). Males and females differed significantly with respect to all the items, except for religious belief.

The most important reason for abstaining from sexual intercourse was therefore a desire to keep his/her virginity (49.2% males, and 72.0% females). The next most important reason was indicated as "lack of opportunity" by males (28.6%) and as "afraid of pregnancy" by females (29.5%). "Religious belief" was not offered as a reason for abstaining by either males or females.

Thus, males and females had different reasons for not having sexual intercourse, apart from keeping their virginity. For males a "lack of opportunity" is an important reason and for females it is fear of pregnancy and STDs: apparently males think more actively about sexual intercourse, while females think about it passively because of the direct sexual risks to themselves. The results are provided in Table 4.28.

Table 4.28: Reasons for abstaining from sexual intercourse

Frequency: N (%)

Reason for not having sexual intercourse	Gender			P value+
	Male	Female	Total	
Respondents	185 (47.3)*	207 (52.7)*	392 (100)	
Keeping virginity	91 (37.9)* (49.2)**	149 (62.1) (72.0)	240(100) (61.2)	0.000
Afraid of pregnancy	24 (28.2) (13.0)	61 (71.8) (29.5)	85 (100) (21.7)	0.000
Lack of opportunity	53 (74.6) (28.6)	18 (25.4) (8.7)	71 (100) (18.1)	0.000
Afraid of STDs	25 (36.2) (13.5)	44 (63.8) (21.2)	69 (100) (17.6)	0.044
Religious belief	9 (45.0) (4.9)	11 (55.0) (5.3)	20 (100) (5.1)	0.840
The other reasons for not having sexual intercourse				
Still young	20 (43.5) (10.8)	26 (56.5) (12.6)	46 (100) (11.7)	0.000
I don't want to	24 (77.4) (13.0)	7 (22.6) (3.4)	31 (100) (7.9)	
Feel dirty	0	10 (100) (4.8)	10 (100) (2.5)	

\+ : Chi-square test (relationship between genders and categories)
* : Row % (to compare between male and female groups within a category)
** : Column % (% of frequency divided by same gender respondents)

No computations were made for questions 3.1.3 and 3.1.31 (about whether the respondents used any contraceptive methods, and if so, which methods), because nobody answered the questions.

4.5.5 The right time to start having sexual intercourse according to respondents

Respondents were asked when the time is right to start having sexual intercourse and what age is the best, if it is done before marriage (Table 4.29). In Table 4.29 it can be observed that 79.5% of the respondents indicated "after marriage"; a greater percentage of females (90.8%) than males (66.7%) responded in this way. Furthermore, there is a significant difference between the experimental and control group, for both males and females in each group. Respondents who did not agree with "after marriage" indicated that the right age was

between 15 and 25, with most responses identifying 20 as the appropriate age (males 76.7%, females 52.6%). The reason for 15% of males indicating 25 as the right age may be that Korean males must perform military duty of 26 months from the age of 19.

These results show a more conservative attitude towards premarital intercourse than other studies in Korea (Lee *et al.*, 2000:1; Park & Moon, 2003:348). The experimental group (who received sexuality education) in particular tended to give more conservative responses.

Table 4.29: The right time to start having sex and the right age to start having sex

Frequency: N (%)

Items		Groups					p-value+
		Experim	Control	p-value+	Male	Female	
Period	After marriage	167 (86.5)*	140 (72.5)	0.001	120 (66.7)	187 (90.8)	0.000
	Before marriage	26 (13.5)	53 (27.5)		60 (33.3)	19 (9.2)	
Total		193 (100)	193 (100)		180 (100)	206 (100)	
Age	15 yr.	0	2 (3.8)	0.024	2 (3.3)	0	0.169
	18 yr.	0	5 (9.4)		3 (5.0)	2 (40.0)	
	19 yr.	3 (11.5)	2 (3.8)		3 (5.0)	2 (10.5)	
	20 yr.	14 (32.6)	29 (54.7)		33 (76.7)	10 (52.6)	
	21 yr.	2 (7.7)	0		2 (3.3)	0	
	22 yr.	1 (3.8)	1 (1.9)		2 (3.3)	0	
	23 yr.	0	6 (11.3)		2 (3.3)	4 (21.1)	
	24 yr.	0	4 (7.5)		4 (6.7)	0	
	25 yr.	6 (23.1)	4 (7.5)		9 (15.0)	1 (5.3)	
Total		26 (100)	53 (100)		60 (100)	19 (100)	

+ : Chi-square test (relationship between groups or genders and categories)
* : Column % (to compare categories within a group)

4.6 EXPERIENCE OF SEXUALITY EDUCATION AT SCHOOL

In this section, issues will be discussed such as whether or not respondents received sexuality education, how many hours they spent on sexuality education, who taught the

subject, what subjects were taught, the degree to which they found sexual education helpful, and the reasons why sexuality education is important for adolescents.

4.6.1 Sexuality education at school

Respondents were asked whether or not they had received any sexuality education at school. The questions were intended to determine the times and periods of sexuality education, who taught sexuality education, the contents of sexuality education, how much it helped the respondents, and the reasons why adolescents need sexuality education.

4.6.1.1 Receiving sexuality education and time spent on it

All respondents (100%) indicated that they had received sexuality education at school (Table 4.30).

In Table 4.30 it can be observed that 62.7% of respondents in the experimental group received sexuality education during one semester, whereas the control group had received most 3~4 hours (39.7%) or 5~6 hours (26.1%). Only 5.0 % of respondents in the control group received it for one semester.

The experimental groups possibly responded that they took sexuality education for one semester, because this study was conducted during one semester. This study was conducted using an "activity for creative capability course"; the control group was taught sexuality education by an outside facilitator during the course of the same subject in the last semester. The principal of the school decides what kind of subject can be taken by students during the activity for creative capability course, and the course is optional, with participation being voluntary.

Table 4.30: Whether or not respondents had received sexuality education at school and how many hours were spent on it

Frequency: N (row %)

Items		Groups		Total	p-value+
		Experimental	Control		
Receiving SE	Yes	185 (100)*	207 (100)	392 (100)	X
	No	0	0	0	
Total		185 (100)	207 (100)	392 (100)	
Hours spent	1~2 hours	4 (2.1)	25 (12.6)	29 (7.4)	0.000
	3~4 hours	17 (8.8)	79 (39.7)	96 (24.5)	
	5~6 hours	14 (7.3)	52 (26.1)	66 (16.8)	
	7~8 hours	17 (8.8)	33 (6.6)	50 (12.8)	
	During 1semester	121 (62.7)	10 (5.0)	131 (33.4)	
	During 1 year	20 (10.4)	0	20 (5.1)	
Total		193 (100)	199 (100)	392 (100)	

+ : Chi-square test (relationship between groups)
* : Column % (to compare categories within a group)
X : p-value is not able to be computed
SE: Sexuality education

4.6.1.2 Person who taught the sexuality education

In Table 4.31, it is indicated which teacher taught the sexuality education.

In Table 4.31 it is clear that respondents were taught sexuality education by an outside facilitator. 73.1% of respondents in the experimental group and 56.8% of respondents in the control group received sexuality education from outside facilitators. Other persons who taught sexuality education were a home management teacher, a school nurse, and physical exercise teacher. It is also indicated that a school nurse taught sexuality education to 2.0% in the control group and to 11.9% in the experimental group. The reason for the surprising 2.0% response in the control group was that the control group had no school nurse when the researcher visited, but a visiting school nurse visited the school from time to time. In the control group thus a home management teacher and a physical exercise teacher instead of a

school nurse sometimes taught the control group, together with an outside facilitator (26.6% and 3.0%). Most of the sexuality education in the experimental group was also conducted by outside facilitators, as mentioned above.

Therefore, it can be observed that learners didn't take sexuality education routinely because there is no person who is in charge of sexuality education at school.

Table 4.31: Person who taught the sexuality education

Frequency: N (column %)

Sexuality educator	Groups		Total	p-value+
	Experim	Control		
Home management teacher	6 (3.1)*	10 (5.0)	16 (4.1)	0.000
School nurse	23 (11.9)	4 (2.0)	27 (6.9)	
Outside facilitator	141 (73.1)	113 (56.8)	254(64.8)	
School nurse & outside facilitator	8 (4.1)	1 (0.5)	9 (2.3)	
Home manage & school nurse	2 (1.0)	0	2 (0.5)	
Home manage & outside facilitator	6 (3.1)	53 (26.6)	59 (1.5)	
Physical exercise teacher & facilitator	0	6 (3.0)	6 (1.5)	
Home & nurse & outside facilitator	7 (3.6)	9 (4.5)	16 (0.8)	
Home & physical & outside facilitator	0	3 (1.5)	3 (0.8)	
Total	193 (100)	199 (100)	392 (100)	

+ : Chi-square test (relationship between groups and categories)
* : Column % (to compare categories within a group)

4.6.1.3 The contents of sexuality education

Statistics of the contents of sexuality education that respondents took are given in Table 4.32.

These results show more than one response per respondent because respondents marked all the contents of sexuality education which they received.

Table 4.32 shows the number of positive responses concerning the topics of sexuality education that were taken. The topics of sexuality education, in order of frequency, were reproductive anatomy and function, pregnancy and delivery, STDs, masturbation, nocturnal emission, relationship with the opposite sex, contraceptives, abortion, sexual desire, love and sex, and sexual risks. The topics of interest are significantly different between the experimental and control group ($p<0.001$). Males were more interested in the topics of nocturnal emission (82.5%), masturbation (83.8%), sexual desire (75.7%), and love and sex (62.2%) than females; females were more interested in the topics of reproductive anatomy and function (90.3 %), pregnancy and delivery (83.1%), abortion (71.0%), contraceptives (71.4%), relationship with the opposite sex (78.3%) than males. Although most respondents have taken most topics, males and females were interested in different topics. The topics which males found interesting were more concerned with sexual behaviour, and females were concerned with sexual health that directly affected them.

Table 4.32: Number of positive responses concerning the contents of sexuality education that respondents have taken

Frequency: N (%)

Contents	Groups (N=392)			Gender (N=392)			Total**
	Experim	Control	p-value+	Male	Female	p-value+	
Reproductive anato. & func.	185(95.9)*	165(82.9)	0.000	163(88.1)	187(90.3)	0.476	350
Nocturnal emission	173(90.6)	127(64.1)	0.000	151(82.5)	149(72.3)	0.017	300
Masturbation	174(90.6)	129(64.8)	0.000	155(83.8)	148(71.8)	0.005	303
Pregnancy & delivery	180(93.3)	136(68.3)	0.000	144(77.8)	172(83.1)	0.189	316
Abortion	178(92.2)	103(51.8)	0.000	134(72.4)	147(71.0)	0.756	281
Contraceptives	172(89.8)	111(55.8)	0.000	136(73.5)	147(71.4)	0.634	283
STDs & HIV/AIDS	185(95.9)	120(60.3)	0.000	151(81.6)	154(74.4)	0.086	305
Sexual desire & control method	169(87.6)	102(51.3)	0.000	140(75.7)	131(63.3)	0.008	271
Love & sex	159(82.4)	77(38.7)	0.000	115(62.2)	121(58.5)	0.454	236
Relationship with the opposite sex	169(87.6)	127(63.8)	0.000	134(72.4)	162(78.3)	0.180	296
Sexual risks	170(89.5)	99(50.0)	0.000	127(69.4)	142(69.3)	0.001	269

\+ : Chi-square test (relationship between groups or gender and categories)
* : % of number of positive response in a group or gender an each item
** : Total (frequency of response in group or gender)

4.6.1.4 Extent to which sexuality education offered is relevant to help in daily life

Respondents were asked how much of what they learned in sexuality education could be applied in their daily lives. 15.6% in the control group indicated "None" and 52.8% "Very little" and "a little"; 22.1% felt it helped them to "some extent" and 9.5% felt it helped them "a lot". In the experimental group 4.7% answered "None", 9.8% "Very little" and "a little", while 47.7% marked "Some extent", and 37.8% indicated "a lot" (Table 4.33).

According to the statistical facts in Table 4.33, there is a significant difference between the experimental and control group ($p<0.001$). Therefore, it can be observed that sexuality education helped more adolescents in the experimental group than in the control group. The reason is possibly the effect of the contents of the sexuality education for learners over one semester period.

During the sexuality education programme, learners who were attending the programme (in the experimental group) expressed a lot of interest and concentrated on the programme.

Table 4.33: Extent to which sexuality education offered is relevant to help in daily life

Frequency: N (%)

Degree	Experimental	Control	Total	p-value^{+}
None	9 (4.7)*	31 (15.6)	40 (10.2)	0.000
Very little	7 (3.6)	26 (13.1)	33 (8.4)	
Little	12 (6.2)	79 (39.7)	91 (23.2)	
Some extend	92 (47.7)	44 (22.1)	136 (34.7)	
Lot	73 (37.8)	19 (9.5)	92 (23.5)	
Total (%)	193 (100)	199 (100)	392 (100)	

+ : Chi-square test (relationship between groups and categories)
* : Column % (to compare categories within a group)

4.6.1.5 Respondents' arguments for the necessity of sexuality education

Respondents were asked why adolescents needed to take sexuality education. The result of their responses is shown in Table 4.34. There were more than one response per respondent.

In Table 4.34 the most common response among both groups and among both genders was "to gain the correct sexual knowledge". Moreover, the experimental group in more instances indicated all items more than the control group. Apparently the experimental group was aware of the necessity of sexuality education after the programme. There is also a significant

difference on all items between the experimental and control group, with the exception of "to help solve sexual problems" (p=0.226). It is especially noteworthy that there is a large gap of frequency between the items "to clarify own sexual attitudes and values" (74.2%, 25.8%), and "to create awareness of own right" (68.5%, 31.5%) between the two groups. This could be ascribed to the effect of the sexuality education programme, which possibly helped adolescents to develop an awareness of their sexual rights and to enhance their sexual attitudes and values.

Females in more instances indicated all possible reasons for the necessity of sexuality education for adolescents, with the exception of "to help solve sexual curiosity". The p-values for the difference between the males and females on these items reveal that there was a significant difference with regard to items such as "to help solve sexual curiosity" (p=0.005), "to gain the correct sexual knowledge" (p=0.009), "to create awareness own rights" (p=0.013), and "to prevent unwanted pregnancy" (p=0.013). Therefore, it may be observed that males want to take sexuality education to solve curiosity about sexuality, whereas females want to take it to solve problems in their sexual life.

Table 4.34: Arguments for the necessity of sexuality education for adolescents

Frequency: N (%)

Reason	Groups		P value+	Gender		P value+
	Experi	Control		Male	Female	
To help solve sexual curiosity	81 (64.8)*	44 (35.2)	0.001	72	53	0.005
To help solve sexual problems	57 (54.3)	48 (45.7)	0.226	50	55	0.919
To understand the opposite sex	65 (63.7)	37 (36.3)	0.001	49	53	0.842
To gain the correct sexual knowledge	148 (55.4)	119 (44.6)	0.000	114	153	0.009
To clarify own sexual attitudes and values	89 (74.2)	31 (25.8)	0.000	55	65	0.720
To create awareness of own rights	63 (68.5)	29 (31.5)	0.000	33	59	0.013
To prevent and protect against sexual risks	92 (57.9)	67 (42.1)	0.005	74	85	0.831
To help prevent HIV and STDs	87 (65.9)	45 (34.1)	0.000	66	66	0.428
To prevent date-rape	50 (67.6)	24 (32.4)	0.000	30	44	0.212
To prevent unwanted pregnancy	80 (63.5)	46 (36.5)	0.000	48	78	0.013

+ : Chi-square test (relationship between groups or genders and categories)

* : Row % (to compare experimental to control groups or males to females within a category)

4.7 KNOWLEDGE ABOUT SEXUALITY

The main purpose of the statistical analyses is to establish whether sexuality education had an effect on sexual knowledge and sexual attitudes. Therefore, it will be discussed how much the experimental group's knowledge increased and to which extent more positive attitudes were prevalent after the sexuality education programme, based on similarities which were observed in the personal background of the two groups.

Knowledge regarding sexual matters (section C of the questionnaire, Appendix G) was measured by true or false items. The items were arranged in several sub-groups and the researcher specified whether a true or false response was to be considered correct for these items (see Appendix G). A correct response was scored "1", whereas an incorrect response or "Don't know" was scored "0". The score of all the correct answers is given a score of

100. The higher score is an indication of better knowledge on sexual matters. The corrected answer to each question is provided in Section C of the questionnaire (Appendix G).

4.7.1 T - tests and paired t- test for differences between means of sexual knowledge

Section C of the questionnaire attempted to get a picture of the knowledge on sexual matters. The two genders and the two groups respectively will be compared regarding their knowledge on sexual matters.

4.7.1.1 Comparing results of knowledge regarding sexual matters before receiving sexuality education

The sexual knowledge of respondents before receiving sexuality education was compared between males and females and between the experimental and control group, and the results are shown in Table 4.35.

Table 4.35: Results of sexual knowledge of respondents before receiving sexuality education, as compared between males and females and between the two groups

Time	Group	Sex	Mean	SD	N	t-value	p-value
Before	Experimental	Male	36.87	20.27	53	-1.282	0.203
		Female	41.77	17.88	47		
	Control	Male	39.33	12.47	43	0.599	0.551
		Female	37.69	14.09	55		
	Experimental	Both	39.17	19.13	100	0.325	0.745
	Control	Both	38.41	13.36	98		

According to the result of the t-test in Table 4.35, there is no statistically significant difference between male and female respondents and the experimental and the control group with regard to the knowledge of sexual matters before receiving the sexuality education

(p=0.203, p=0.551). The score for sexual knowledge for males was 36.87, compared to the score of 41.77 for females in the experimental group; and the score for sexual knowledge for males was 39.33, compared to 37.69 for females in the control group. There was also no significant difference between the knowledge of the two groups before receiving sexuality education (p=0.745). Therefore, a similar level of sexual knowledge was observed for the two groups and genders. The sexual knowledge before receiving sexuality education of the respondents was generally poor.

4.7.1.2 Comparing results of knowledge regarding sexual matters before and after receiving sexuality education

The experimental group and control group were compared regarding their knowledge on sexual matters before and after receiving sexuality education. This was computed by means of a paired t-test, as shown in Table 4.36.

Table 4.36: Differences between the groups' means of sexual knowledge before and after receiving sexuality education.

Groups	Before/After	Mean	SD	Diff.	t-value	p-value
Experimental (n=100)	Before	39.17	19.13	31.62	-16.926	0.000
	After	70.79	17.66			
Control (n=98)	Before	38.41	13.36	11.05	-8.182	0.000
	After	49.46	17.26			
Experimental	Before	39.17	19.13	0.76	0.325	0.745
Control		38.41	13.36			
Experimental	After	70.79	17.66	21.33	8.593	0.000
Control		49.46	17.26			

After receiving sexuality education, the score difference for the experimental group was 31.62 (from M=39.17 to M=70.79). In the control group, the score difference 11.05 (from M=38.41 to M=49.46). Therefore, it was found that the sexual knowledge scores of both groups were higher after receiving sexuality education, but that this difference was greater in

the experimental group (a difference of 21.33 between the mean scores of the two groups). Therefore, although there was no significant difference between the groups before receiving sexuality education ($p=0.745$) there was a significant difference ($p<0.001$) after receiving sexuality education.

It is clear that after the programme, the experimental group had more sexual knowledge than the control group, which proves that sexuality education can be effective to increase accurate sexual knowledge of adolescents.

4.7.1.3 Comparing results of knowledge regarding sexual matters after receiving sexuality education

The results of a comparison of the mean differences between the sexual knowledge of males and females and of the experimental and control group after receiving sexuality education are shown in Table 4.37.

Table 4.37: Comparing the mean differences between the sexual knowledge of males and females and of the experimental and control group after receiving sexuality education

Groups	Sex / Group	Mean	SD	Diff	t-value	p-value
Experimental (n=193)	Male	71.10	17.17	-1.72	-1.113	0.267
	Female	73.82	16.74			
Control (n=199)	Male	53.71	15.82	3.04	1.301	0.195
	female	50.67	16.79			
Experimental & Control	Experimental	72.44	16.97	20.44	12.127	0.000
	Control	52.00	16.40			

The results of t-tests in Table 4.37 show that there is no significant difference between male and female respondents in the experimental group or the control group with regard to knowledge of sexual matters after receiving sexuality education. It was computed that the mean score for sexual knowledge for males was 71.10 and 73.82 for females . In the control group, the mean score for sexual knowledge for males was 53.71, compared to the 50.67 for females. On the other hand, the sexual knowledge score of the experimental group was 72.44 and that of the control group 52.00. It can be observed that the difference of mean scores between the two groups was 20.44. It clearly shows a significant difference between the two groups regarding sexual knowledge after receiving sexuality education ($p<0.001$).

It can thus be presumed that a sexuality education programme which is presented in a comprehensive and interactive manner is more effective to increase sexual knowledge than a programme which only relies on reading matter. Moreover, after the programme, females in the experimental group in general had more sexual knowledge than males. It may be presumed that the females were more interested in and concentrated more on the sexuality education during the opening of the programme for this study than the males, because they were concerned about their sexual health (which they indicated as a reason for the necessity of sexuality education for adolescents).

4.7.2 Comparing results of sexual knowledge on the different items after receiving sexuality education

In this section it is attempted to get a picture of the mean score for sexual knowledge for each item in section C of the questionnaire for the genders in each group and for the two groups after the sexuality education, and to compare the results. The chi-square was computed to determine whether the sexes of each group and the two groups differed significantly.

The items about knowledge regarding sexual matters were measured by true or false questions, and the items were arranged in several sub-groups (Appendix G). The sub-groups are categorised according to contents as C1~C11 (Section C in questionnaire). T-tests were performed to determine whether the sexes of each group differed significantly. Because sub-items were in the region of 10 (C2 (Table 4.39), C4 (Table 4.41), C5 (Table 4.42), C6 (Table 4.43), C8 (Table 4.45) and C10 (Table 4.47), 10 was used as a reference point in the parenthesis in order to make an easy comparison.

The two sexes of each group, and the experimental and control group were compared regarding their knowledge on each item. This was computed by t-tests, to show the differences between the means (Table 4.38 to Table 4.48).

4.7.2.1 Knowledge about sexuality and sex

Respondents were asked about sexuality and sex on 10 sub-items. The results provided in Table 4.38 (Appendix G; section C in questionnaire).

Table 4.38: Knowledge of sexuality and sex (C1 in questionnaire)

C1. Knowledge of sexuality and sex (10 sub-items)							
Groups	Sex / Group	N	Mean	SD	Diff. of M	t-value	p-value
Experimental (n=193)	Male	98	6.39	2.85	-0.73	-1.956	0.052
	Female	95	7.12	2.30			
Control (n=199)	Male	87	3.95	2.66	0.75	2.169	0.031
	Female	112	3.11	2.75			
Experimental & Control	Experiment	193	6.75	2.61	3.31	12.25.	0.000
	Control	199	3.44	2.74			

In the item on sexuality and sex there are 10 sub-items in the item C1. Therefore, the total score is 10, with the converted mean score not represented. From Table 4.38 it was computed that the mean score for sexual knowledge for males was 6.39, compared to 7.12 for females in the experimental group. It could be observed that females had a better understanding of sexuality and sex than males, even though there was no statistically significant difference. In the control group, males had a better understanding of sexuality and sex than females, but they mostly showed a lack of understanding. The mean score for males and females was respectively 3.95 and 3.11. Accordingly, it could be observed that there was a significant difference between the experimental and control group after receiving sexuality education ($p<0.001$).

The control group shows very poor knowledge about different meanings of sexuality and sex. The experimental group shows better understanding of the meaning of sexuality and sex after receiving sexuality education.

4.7.2.2 Knowledge about sex hormonal effects in puberty

Respondents were asked about sex hormonal effects in puberty on 12 sub-items (Table 4.39).

Table 4.39: Statements by males and females about sex hormonal effects in puberty (C2 in questionnaire)

C2. Statements about sex hormonal effects in puberty (12 sub-items)							
Groups	Sex / Group	N	Mean	SD	Diff. of M	t-value	p-value
Experimental (n=193)	Male	98	9.37 (7.81)	1.91	0.13	0.403	0.687
	Female	95	9.24 (7.70)	2.31			
Control (n=199)	Male	87	7.48 (6.24)	2.31	0.46	1.340	0.182
	Female	112	7.02 (5.85)	2.51			
Experimental & Control	Experiment	193	9.31 (7.76)	2.15	2.08 (1.74)	8.982.	0.000
	Control	199	7.22 (6.02)	2.43			

The item on sex hormonal effects in puberty is divided in 12 sub-items in C2. The total score is therefore 12; thus a mean score converted to 10 is represented in parenthesis. In Table 4.39 it was computed that the mean score for knowledge in the experimental group was 9.37 (7.81) for males and for females 9.24 (7.70). It could be observed that both males and females had a good understanding of the sex hormonal effects in puberty. On the other hand, the mean score for knowledge in the control group was 7.48 (6.24) for males, compared to 7.02 (5.85) for females. However there is no statistically significant difference between males and females in each group. The difference between the mean scores for the experimental and control groups was 2.08 (1.74) after receiving sexuality education. It presents a significant difference between the experimental and control group ($p<0.001$).

Thus, although both groups had an understanding of sex hormonal effects in puberty, the experimental group had a better understanding than the control group. The males in both groups also displayed a better understanding about it than the females.

4.7.2.3 Knowledge about physiological phenomena in males and females

Respondents were asked about physiological phenomena in males and females on 10 sub-items (Table 4.40).

Table 4.40: Knowledge of physiological phenomena in males and females (C3 in questionnaire)

C3. Knowledge of physiological phenomena (10 sub-items)							
Groups	Sex / Group	N	Mean	SD	Diff. of M	t-value	p-value
Experimental (n=193)	Male	98	6.89	2.33	-0.13	-0.394	0.694
	Female	95	7.02	2.37			
Control (n=199)	Male	87	6.13	2.17	0.45	1.471	0.158
	Female	112	5.68	2.24			
Experimental & Control	Experiment	193	6.95	2.35	1.08	4.681.	0.000
	Control	199	5.87	2.22			

In the item on physiological phenomena of males and females there is 10 sub-items in C3. The total score is therefore 10. In Table 5.6 the mean score for knowledge was 6.89 for males and 7.02 for females in the experimental group, and in the control group, it was 6.13 for males and 5.68 for females. There is no statistically significant difference between males and females in each group, but a significant difference was found between the experimental and control group (1.08; $p<0.001$). Although both groups thus understood physiological phenomena, the experimental group had a better understanding than the control group.

4.7.2.4 Knowledge about genital health

Respondents were also asked about genital health in males and females in 6 sub-items (Table 4.41).

Table 4.41: Knowledge of genital health for males and females (C4 in questionnaire)

C4. Knowledge of genital health (6 sub-items)							
Groups	Sex / Group	N	Mean	SD	Diff. of M	t-value	p-value
Experimental (n=193)	Male	98	4.80 (7.99)	1.57	-0.29	-1.333	0.184
	Female	95	5.08 (8.47)	1.43			
Control (n=199)	Male	87	4.11 (6.86)	1.48	0.50	2.148	0.033
	Female	112	3.62 (6.03)	1.79			
Experimental & Control	Experiment	193	4.94 (8.23)	1.51	1.10 (1.83)	6.858	0.000
	Control	199	3.83 (6.40)	1.68			

This item includes 6 sub-items in C4. The total score is thus 6, and the converted mean score of 10 is represented in parenthesis. In Table 4.41 it was computed that the mean score for knowledge for males was 4.80 (7.99) and that of females was 5.08 (8.47) in the experimental group. It can be observed that both males and females understood well, especially female, about genital health. Also, the control group showed an understanding of genital health

because the mean score for knowledge for males was 4.11 (6.86), compared to 3.62 (6.03) for females. Thus, the males and females in the experimental group showed no significant difference (p=0.184), but the males and females in the control group showed a statistically significant difference (p=0.033). The difference between the mean score for the experimental group and for the control group after sexuality education was 1.10 (1.83), which is significant (p<0.001).

Therefore, although the issue of genital health was well understood by both groups, the experimental group had more knowledge about it and about sex hormonal effects and physiological phenomena than the control group.

4.7.2.5 Knowledge about sexual desire

The results of knowledge about sexual desire are shown in Table 4.42.

Table 4.42: Knowledge of sexual desire (C5 in questionnaire)

C5. Knowledge of sexual desire (6 sub-items)							
Groups	Sex / Group	N	Mean	SD	Diff. of M	t-value	p-value
Experimental (n=193)	Male	98	4.96 (8.27)	1.38	0.43	2.024	0.044
	Female	95	4.53 (7.54)	1.58			
Control (n=199)	Male	87	3.48 (5.80)	1.66	0.34	1.454	0.148
	Female	112	3.14 (5.24)	1.62			
Experimental & Control	Experiment	193	4.75 (7.91)	1.78	1.46 (2.42)	9.160	0.000
	Control	199	3.29 (5.49)	1.83			

In the item on knowledge about sexual desire there are 6 sub-items in C5. Therefore, the total score is 6, and the converted mean score of 10 is represented in parenthesis. In Table 4.42 it was computed that the mean score for sexual knowledge in the experimental group was 4.96 (8.27) for males, compared to 4.53 (7.54) for females. It was observed that males understood better about sexual desire than females. There is a slight significant difference

between males and females in the experimental group (p=0.044). In the control group, the mean scores for males and females were 3.48 (5.80) and 3.14 (5.24) respectively. The mean score for males was 0.34 higher than for females, even though it was not different between the two sexes. Males in this age group thus seemed to be more prone to sexual desires. Accordingly, it could be observed that there was a significant difference between the experimental and control group regarding knowledge about sexual desire (p<0.001).

Therefore, the experimental group had a better understanding of sexual desire than the control group, and males are more interested in sexuality information than females, because this information is more directly connected to sexual desire.

4.7.2.6 Knowledge about masturbation

The results of knowledge about masturbation are shown in Table 4.43.

Table 4.43: Knowledge of masturbation (C6 in questionnaire)

C6. Knowledge of masturbation (7 sub-items)							
Groups	Sex / Group	N	Mean	SD	Diff. of M	t-value	p-value
Experimental (n=193)	Male	98	4.28 (6.11)	1.76	0.15	0.582	0.561
	Female	95	4.13 (5.90)	1.80			
Control (n=199)	Male	87	4.10 (5.86)	1.74	0.65	2.506	0.013
	Female	112	3.46 (4.94)	1.86			
Experimental & Control	Experiment	193	4.20 (6.00)	1.78	0.46 (0.66)	2.545	0.011
	Control	199	3.74 (5.34)	1.83			

The item on knowledge about masturbation consists of 7 sub-items in C6. The total score was therefore 7, and the converted mean score out of 10 is given in parenthesis. The mean score for knowledge about masturbation was 4.28 (6.11) for males and 4.13 (5.90) for females in the experimental group. It was also observed that there is no difference between

males and females in the experimental group. However, in the control group, the mean score for males was 4.10 (5.86) and for females 3.46 (4.94), which represents a significant difference between males and females (p=0.013). Thus, it could be presumed that the result of the insignificant difference between males and females in the experimental group may be ascribed to the effect of sexuality education, through which females increased their knowledge about masturbation. However, males in their age group had more knowledge than females and a better understanding of sexual desires. The mean score of the experimental group (0.46 (0.66)) was higher than that of the control group. It showed that the knowledge about masturbation was a little better among in the experimental group than among the control group (p=0.011) after receiving sexuality education.

It can be presumed that males are more interested in masturbation because of its possible relation to sexual desire.

4.7.2.7 Knowledge about pregnancy

The results of knowledge relating to pregnancy are shown in Table 4.44.

Table 4.44: Knowledge about pregnancy (C7 in questionnaire)

C7. Knowledge about relating pregnancy (10 sub-items)							
Groups	Sex / Group	N	Mean	SD	Diff. of M	t-value	p-value
Experimental (n=193)	Male	98	6.94	2.66	-1.10	-3.353	0.001
	Female	95	8.04	1.82			
Control (n=199)	Male	87	5.29	2.67	-0.83	-2.325	0.021
	Female	112	6.12	2.25			
Experimental & Control	Experiment	193	7.48	2.35	1.73	7.101	0.000
	Control	199	5.75	2.47			

The item on knowledge about pregnancy consists of 10 sub-items in C7. Therefore, the total score is 10. In Table 4.44 it was computed that the mean score for sexual knowledge for males was 6.94, compared to 8.04 for females in the experimental group. It is observed that females had a better understanding of pregnancy than males ($p=0.001$). In the control group, females also had more knowledge of pregnancy than males ($p=0.021$); the mean scores for males and females respectively being 5.29 and 6.12. Thus, pregnancy was understood better by females than males. However, the difference of mean score between the experimental and control group was 1.73, which represents a significant difference between the two groups ($p<0.001$).

Adolescents in the experimental group, and particularly the females in this group, therefore are more knowledgeable about pregnancy after they have received sexuality education than the control group.

Females' interest in the topic may be ascribed to the fact that pregnancy directly affects them.

4.7.2.8 Knowledge about induced abortion

The results of knowledge about induced abortion are presented in Table 4.45.

Table 4.45: Knowledge about induced abortion (C8 in questionnaire)

C8. Knowledge about induced abortion (8 sub-items)							
Groups	Sex / Group	N	Mean	SD	Diff. of M	t-value	p-value
Experimental (n=193)	Male	98	5.68 (7.11)	2.51	-0.83	-2.601	0.010
	Female	95	6.52 (8.15)	1.90			
Control (n=199)	Male	87	4.74 (5.92)	2.66	-0.13	-0.339	0.735
	Female	112	4.87 (6.08)	2.72			
Experimental & Control	Experiment	193	6.09 (7.62)	2.26	1.28 (1.61)	5.122	0.000
	Control	199	4.81 (6.01)	2.69			

The item on knowledge about induced abortion consists of 8 sub-items in C8. The total score is thus 8, and the converted mean score out of 10 is presented in parenthesis. In Table 4.45 the mean score of the knowledge about induced abortion for males and females in the experimental group is 5.68 (7.11) for males and 6.52 (8.15) for females. It could be observed that females had a better understanding about induced abortion, as there was a statistically significant difference between males and females ($p=0.010$). In the control group, the mean score for males and females was respectively 4.74 (5.92) and 4.87 (6.08). Therefore the females in the control groups also scored 0.13 higher than males, even though there is no significant difference between the two sexes. Thus, abortion was also understood better by females than males, and particularly by females in the experimental group. The difference of the mean score between the two groups was 1.28, which represents a significant difference between the two groups ($p<0.001$). The males in the experimental group apparently also increased their knowledge about abortion after receiving sexuality education.

As in the case with knowledge about pregnancy, it would appear that females are better informed about abortion than males because they are directly affected by it.

4.7.2.9 Knowledge about contraception

Respondents' knowledge about contraception was probed in 10 sub-items (Table 4.46).

Table 4.46: Knowledge about contraception (C9 in questionnaire)

C9. Knowledge about contraception (10 sub-items)							
Groups	Sex / Group	N	Mean	SD	Diff. of M	t-value	p-value
Experimental (n=193)	Male	98	7.01	2.37	-0.30	-0.925	0.356
	Female	95	7.31	2.04			
Control (n=199)	Male	87	4.49	2.30	0.47	1.463	0.145
	Female	112	4.03	2.19			
Experimental & Control	Experiment	193	7.16	2.21	2.93	12.989	0.000
	Control	199	4.23	2.24			

The item on knowledge about contraception consists of 10 sub-items in C9. Therefore, the total score is 10. The mean score for knowledge of contraception was 7.01 for males and 7.31 for females in the experimental group. There was no significant difference between males and females. The control group scored much lower on knowledge about contraception (4.49 for males and 4.03 for females). There was thus a significant difference between the experimental and control group after receiving sexuality education (2.93, or $p<0.001$). The experimental group was more knowledgeable about contraception, especially the females.

The experimental group therefore understands contraceptives much better than the control group.

4.7.2.10 Knowledge about sexually transmitted diseases (STDs)

The results of knowledge about sexually transmitted diseases are shown in Table 4.47.

Table 4.47: Knowledge about sexually transmitted diseases (C10 in questionnaire)

C10. Knowledge about STDs (11 sub-items)							
Groups	Sex / Group	N	Mean	SD	Diff. of M	t-value	p-value
Experimental (n=193)	Male	98	7.21 (6.56)	2.56	-0.18	-0.453	0.651
	Female	95	7.39 (6.72)	2.81			
Control (n=199)	Male	87	4.25 (3.87)	2.83	0.67	1.768	0.079
	Female	112	3.58 (3.26)	2.52			
Experimental & Control	Experiment	193	7.30 (6.64)	2.68	3.43 (3.12)	12.660	0.000
	Control	199	3.87 (3.52)	2.68			

The item on knowledge about STDs consists of 11 sub-items in C10. The total score is thus 11, and the converted mean score out of 10 is presented in parenthesis. The mean score for knowledge about contraception was 7.21 (6.56) for males and 7.39 (6.72) for females in the experimental group. It could be observed that females were more knowledgeable about STDs, even though there was no significant difference. In the control group, the mean score for knowledge of STDs was 4.25 (3.87) for males and 3.58 (3.26) for females. There is also no significant difference between males and females in the control group. However, there was a significant difference between the experimental and control group after sexuality education: the difference between the mean scores of the two groups was 3.43 ($p<0.001$).

Thus, the experimental group was much more knowledgeable about STDs than the control group.

4.7.2.11 Knowledge about HIV/AIDS

The results of knowledge about HIV and AIDS are shown in Table 4.48.

Table 4.48: Knowledge about HIV and AIDS (C11 in questionnaire)

C11. Knowledge about HIV and AIDS (10 sub-items)							
Groups	Sex / Group	N	Mean	SD	Diff. of M	t-value	p-value
Experimental (n=193)	Male	98	8.09	2.58	0.2	0.81	0.935
	Female	95	8.06	2.30			
Control (n=199)	Male	87	6.29	2.45	0.12	0.356	0.722
	female	112	6.17	2.20			
Experimental & Control	Experiment	193	8.08	2.44	1.86	7.744	0.000
	Control	199	6.22	2.31			

The item on knowledge about HIV/AIDS consists of 10 sub-items in C11. Therefore, the total score is 10. The mean score of knowledge about HIV/AIDS was 8.09 for males and 8.06 for females in the experimental group. It could be observed that both males and females were very knowledgeable about HIV/AIDS. In the control group, the mean scores on HIV/AIDS were 6.29 for males and 6.17 for females. There is thus no significant difference between the two sexes. However, a statistically significant difference was found between the mean score for the experimental and for the control groups (a difference of 1.86; $p<0.001$).

Thus, sexuality education was effective to increase knowledge about HIV/AIDS in the experimental group.

4.7.3 Summary

As far as the items of sexual knowledge is concerned the experimental group scored much higher after the sexuality education programme of 15 sessions than the control group, whereas there was no significant difference in this regard between the two groups before the sexuality education programme.

The difference between the mean scores of the two groups was 20.44 – the experimental group scored 72.44 and the control group 52.00. This represents a clear and significant difference between the two groups on sexual knowledge after the sexuality education programme was conducted. There was a significant difference between the two groups regarding the knowledge on all items of sexual matters. The difference relating to masturbation was in the order of M = 0 ~ 0.9; relating to physical phenomena, pregnancy, genital health, sexual desire, and HIV it was in the order of M = 1 ~ 1.9; relating to puberty and contraception M = 2 ~ 2.9; and relating to sexuality and sex, and STDs it was M = 3 ~ 3.9. The experimental group thus showed that they had much more accurate knowledge about sexuality and sex, and STDs after receiving sexuality education. Males were more knowledgeable about the items "sexual desire" and "masturbation", whereas females were more knowledgeable about the items "pregnancy" and "induced abortion".

Although respondents' personal preference of topics in the programme differed, it was evident that they concentrated more on the topics which they considered most relevant to them. The result of the sexuality education programme was also more effective to increase sexual knowledge in the experimental group than merely providing them with reading matter about the topic, as happened in the control group.

In the following section it will be determined to which extent they changed their sexual attitudes positively or negatively after the sexuality education programme.

4.8 ATTITUDES TOWARDS SEXUALITY

Sexual attitudes (Section E of the questionnaire, Appendix G) were measured by 5 scale points (1 point: strongly disagree ~ 5 points: strongly agree). The items were arranged in several sub-items. The number of total sub-items was 86. 34 of the 86 items were reversed

questions. The highest possible score of sexual attitudes is thus 430 or an average of 5 points. The 34 items which are reversed questions were also computed as reversed points (see section E in Appendix G). Therefore, a higher score indicates more positive sexual attitudes. Respondents were also asked to give reasons why they agreed or disagreed with a sub-item. The given reasons are provided in Appendix H.

4.8.1 T - tests and paired t- test for differences between means of sexual attitudes

Section E of the questionnaire attempted to get a picture of the sexual attitudes. The two sexes of each group and the experimental and control group were compared regarding their sexual attitudes as well as the method of comparing the knowledge on sexual matters. It was computed by t-tests or paired t-tests (Table 4.49 to Table 4.51) The sexual attitudes of the two sexes and the two groups on each item of the questions in Section E will also be illustrated in Table 4.52 to Table 4.63.

4.8.1.1 Comparing results of attitudes towards sexual matters before receiving sexuality education

The differences between the two sexes in each group and experimental and control groups regarding their attitudes towards sexual matters before receiving sexuality education are presented in Table 4.49. The differences were computed by means of t-tests.

Table 4.49: Comparing results of differences regarding attitudes towards sexual matters between males and females in each group and two groups before receiving sexuality education

Time	Groups	Sex	Mean (M of 5 points)	SD	N	t-value	p-value
Before	Experimental	Male	283.72 (3.30)	24.86 (.2891)	53	-0.174	0.862
		Female	284.51 (3.31)	20.13 (.2341)	47		
	Control	Male	277.37 (3.23)	21.35 (.248)	43	-2.483	0.015
		Female	286.44 (3.33)	14.74 (.171)	55		
	Experimental	Both	284.09 (3.30)	22.65 (.2634)	100	0.325	0.745
	Control	Both	282.46 (3.28)	18.41 (.214)	98		

According to the result of the t-tests in Table 4.49, attitudes towards sexual matters were slightly positive in males and females in both groups (a mean of 5 points). The sexual attitudes scores for males and females in the experimental group were respectively 283.72 (3.30) and 284.51 (3.31). It indicates no significant difference between the males and females in the experimental group, but a statistically significant difference between the males and females in the control group ($p=0.015$), with mean scores of respectively 277.37 (3.23) and 286.44 (3.33). There was no significant difference between the two groups before receiving sexuality education ($p=0.745$).

Therefore, it was observed that attitudes towards sexual matters tended to be slightly positive to a similar degree in the two groups.

4.8.1.2 Comparing results of attitudes towards sexual matters before and after receiving sexuality education

The experimental and control groups will be discussed separately or paired, so as to compare the result of their attitudes towards sexual matters before and after receiving sexuality education, as computed by means of paired t-tests (Table 4.50).

Table 4.50: Comparing results of the two groups' attitudes towards sexual matters before and after receiving sexuality education

Groups	Before/After	Mean (M of 5 points)	SD	N	t-value	p-value
Experimental (n=100)	Before	284.09 (3.30)	22.65 (.2634)	53	-7.286	0.000
	After	303.38 (3.52)	26.39 (.3069)	47		
Control (n=98)	Before	282.46 (3.28)	18.41 (.214)	43	-1.367	0.175
	After	285.22 (3.32)	22.65 (.26)	55		
Experimental	Before	284.09 (3.30)	22.65	100	0.555	0.579
Control		282.46 (3.28)	18.41	98		
Experimental	After	303.38 (3.52)	26.39	100	5.190	0.000
Control		285.22 (3.32)	22.62	98		

In Table 4.50, the mean scores of sexual attitudes, as computed by means of paired t-tests for the experimental group, changed from M=284.09 (3.30) to M=303.38 (3.52), and for the control group it changed from M=282.46 (3.28) to M=285.22 (3.32). It was found that the sexual attitudes in the experimental group became more positive after receiving sexuality education, and that this change represented a significant difference ($p<0.000$) from before the sexuality education, but there was no significant difference in the control group ($p=0.579$). An analysis by means of paired t-tests found no significant difference between

the experimental and control group before the programme, but a significant difference is indicated between the two groups after receiving sexuality education ($p<0.000$).

Therefore, it is clear that the sexuality education programme is instrumental in positively changing attitudes towards sexual matters.

4.8.1.3 Comparing results of attitudes towards sexual matters after receiving sexuality education

The results of the comparison of the mean differences between males and females in each group and the paired two groups regarding sexual attitudes after receiving sexuality education are shown in Table 4.51.

Table 4.51: Comparing results of attitudes towards sexual matters between the genders in a group and all the respondents in the two groups after receiving sexuality education

Groups	Sex / Group	Mean (M of avg)	SD	N	t-value	p-value
Experimental (n=193)	Male	301.38 (3.50)	26.05 (.3029)	98	-2.077	0.039
	Female	308.68 (3.59)	22.64 (.2632)	95		
Control (n=199)	Male	277.92 (3.23)	23.23 (.270)	87	-3.515	0.001
	Female	288.00 (3.35)	17.22 (.200)	112		
Experimental & Control	Experiment	304.99 (3.55)	24.61 (.2862)	193	9.341	0.000
	Control	283.59 (3.30)	20.64 (.2399)	199		

The result of the t-test in Table 4.51 points towards a significant difference between male and female respondents in both groups regarding sexual attitudes after receiving sexuality education. It was computed that the mean score for sexual attitudes was 301.38 (3.50) for

males, compared to 308.68 (3.59) for females. It was observed that the sexual attitudes of females were more positive than those of males ($p=0.039$). In the control group, the mean score for sexual attitudes was 277.92 (3.23) for males, and the mean score for sexual attitudes was 288.00 (3.35) for females. It was also observed that the sexual attitudes of females were more positive than those of males in the control group as well as the experimental group. However, there was a significant difference between the experimental and control group regarding sexual attitudes ($p<0.001$). It was observed that the sexual attitudes of males and females in the experimental group were more positive than those of males and females in the control group after receiving sexuality education.

In particular, females in the experimental group were observed to have more positive sexual attitudes than males after receiving sexuality education. It may be presumed from the results that the females were more interested and concentrating more on the sexuality education than the males during the initial stages of the programme.

There is clearly a significant difference between the two groups on sexual attitudes after the sexuality education programme. It is therefore found that the direct teaching of sexuality education is more effective in developing positive attitudes towards sexually related matters than only providing reading matter on the subject.

4.8.2 Comparing results of sexual attitudes regarding the different items after receiving sexuality education

In this section it will be attempted to get a picture of the respondents' sexual attitudes. T-tests were computed to determine whether the sexes of each group differed significantly. The items relating to sexual attitudes consisted of several sub-items measured on a 5-point scale, ranging from strongly disagree (1 point) to strongly agree (5 points) for each sub-item.

The sub-items were categorised on the same contents as E1 ~ E12 (Section E in questionnaire).

The two sexes of each group and the experimental and control groups were compared regarding their sexual attitudes on each item. Differences between means were computed by means of t-tests (Table 4.52 to Table 4.63). The mean score will be presented with mean of 5 points, in parenthesis. The respondents were also asked why they agreed or disagreed with each sub-item. The reasons are provided in Appendix H.

4.8.2.1 Attitudes towards sexuality

Table 4.52 illustrates the responses with regard to sexuality (Appendix H; section E in questionnaire)

Table 4.52: Statements about attitudes towards sexuality (E1 in questionnaire)

E1. Statements about attitudes towards sexuality (4 sub-items)							
Groups	Sex / Group	N	Mean (M of 5 points)	SD	Diff. of M	t-value	p-value
Experimental (n=193)	Male	98	14.46 (3.61)	3.15	1.11	2.483	0.014
	Female	95	13.35 (3.34)	3.07			
Control (n=199)	Male	87	13.66 (3.41)	2.86	2.09	5.266	0.000
	Female	112	11.56 (2.89)	2.72			
Experimental & Control	Experiment	193	13.91 (3.48)	3.15	1.43	4.645	0.000
	Control	199	12.48 (3.12)	2.96			

The total score of E1 is 20 because there are 4 sub-items in E1. It was computed that the mean score for sexual attitudes was 14.46 (3.61) for males, compared to 13.35 (3.34) for females in the experimental group. It was observed that males had more positive attitudes towards sexuality than females, and there was a statistically significant difference between the two sexes (p=0.014). In the control group, males (3.41) also had more positive attitudes

towards sexuality than females (2.89). There was thus a significant difference between the two sexes in the control group ($p<0.000$). When comparing between the experimental and the control group, the experimental group had more positive sexual attitudes towards sexuality than the control group ($p<0.001$).

Thus, it can be concluded that sexuality education was more effective to instil positive attitudes towards sexuality. On the other hand, the females in the control group had very poor knowledge about sexuality and sex, and consequently displayed a slightly negative attitude towards sexuality. It can be presumed that females in the control group did not distinguish between sexuality and sex.

The respondents' motivations are reflected in Appendix H.

4.8.2.2 Attitudes towards sexual desire

Respondents' attitudes towards sexual desire were tested (Table 4.53).

Table 4.53: Attitudes towards sexual desire (E2 in questionnaire)

E2. Attitudes towards sexual desire (4 sub-items)							
Groups	Sex / Group	N	Mean (M of 5 points)	SD	Diff. of M	t-value	p-value
Experimental (n=193)	Male	98	15.01 (3.75)	2.54	0.02	0.64	0.949
	Female	95	14.99 (3.75)	1.95			
Control (n=199)	Male	87	14.38 (3.59)	2.52	-0.25	-0.725	0.470
	Female	112	14.63 (3.66)	2.25			
Experimental & Control	Experiment	193	15.00 (3.75)	2.27	0.48	2.059	0.040
	Control	199	14.52 (3.63)	2.37			

The item on attitudes towards sexual desire consists of 4 sub-items in E2. The total score is therefore 20. In Table 4.53 it was computed that the mean score for sexual desire was 15.01

(3.75) for males and 14.99 (3.75) for females in the experimental group. It was observed that males and females had similar sexual attitudes towards sexual desire. However, in the control group the mean score was 14.38 (3.59) for males, compared to 14.63 (3.66) for females. There was also a similar degree of attitudes about sexual desire in the control group. The difference between the mean score for the experimental and control groups was 0.48, which points towards no significant difference between the experimental and control group (p=0.040).

Therefore, although the males and females in each group displayed similar attitudes towards sexual desire, there were more positive attitudes displayed towards sexual desire than towards sexuality. Attitudes towards sexual desire were also similar in spite of the strong significant difference regarding knowledge about sexual desire.

4.8.2.3 Attitudes towards masturbation

The item about attitudes towards masturbation consisted of 6 sub-items in E3. The total score is therefore 30 (Table 4.54).

Table 4.54: Attitudes towards masturbation (E3 in questionnaire)

E3. Attitudes towards masturbation (6 sub-items)							
Groups	Sex / Group	N	Mean (M of 5 points)	SD	Diff. of M	t-value	p-value
Experimental (n=193)	Male	98	19.10 (3.18)	2.58	-0.40	-1.169	0.244
	Female	95	19.51 (3.25)	2.19			
Control (n=199)	Male	87	19.03 (3.17)	2.52	0.98	3.070	0.002
	Female	112	18.05 (3.01)	2.25			
Experimental & Control	Experiment	193	19.30 (3.22)	2.40	0.82	3.460	0.001
	Control	199	18.48 (3.08)	2.28			

In Table 4.54 it was computed that the mean score for knowledge was 19.10 (3.18) for males and 19.51 (3.25) for females in the experimental group, and in the control group, the mean score of the attitudes was 19.03 (3.17) for males and 18.05 (3.01) for females. There was no statistically significant difference between males and females in the experimental group, but there was a significant difference between the males and females in the control group ($p=0.002$). The females in the control group seemed to be less informed about masturbation than others. There was, however, a significant difference between the experimental and control groups in this regard ($p=0.001$).

The mean of 5 points indicates a slightly positive attitude toward masturbation in both groups, with females in the experimental group scoring the highest point. This lack of a significant difference between the sexes in the experimental group may be ascribed to the effect of sexuality education. Females better understood and had more positive attitudes about the item than males, but males in their age group had more knowledge about masturbation than females.

This study suggests that most respondents do not feel guilty or shameful about masturbation (E3 in Appendix H.).

4.8.2.4 Attitudes towards premarital sexual intercourse

Respondents were asked to give their opinions on premarital sexual intercourse on 11 sub-items (Table 4.55).

Table 4.55: Attitudes towards premarital sexual intercourse (E4 in questionnaire)

E4. Attitudes towards premarital sexual intercourse (11 sub-items)							
Groups	Sex / Group	N	Mean (M of 5 points)	SD	Diff. of M	t-value	p-value
Experimental (n=193)	Male	98	41.38 (3.76)	7.97	-4.59	-4.661	0.000
	Female	95	45.97 (4.18)	5.52			
Control (n=199)	Male	87	38.68 (3.17)	6.74	-6.14	-6.806	0.000
	Female	112	44.82 (4.07)	5.97			
Experimental & Control	Experiment	193	43.64 (3.97)	7.24	1.50	2.088	0.037
	Control	199	42.14 (3.83)	7.00			

The item dealing with attitudes towards premarital sexual intercourse consists of 11 sub-items in E4. The total score is therefore 55. In Table 4.55 the mean score of premarital sexual intercourse was 41.38 (3.76) for males and 45.97 (4.18) for females in the experimental group. It can be observed that the attitude toward premarital sexual intercourse among females was more prudent than among males ($p<0.001$). In the control group, the mean score for males and females was respectively 38.68 (3.17) and 44.82 (44.07). The females in the control group were also more opposed to premarital intercourse than the males. The difference between the mean score for the experimental and control group was 1.50, which represents a statistically significant difference ($p=0.037$).

Thus, females in both group were much more opposed to premarital intercourse than the males, particularly in the experimental group. The attitudes towards premarital intercourse mean that they are willing to keep their virginity or to practice abstinence, because they think about their future spouse, they do not want their partner to experience heartache after a break-up, and they want to prevent unwanted pregnancy and abortion (Appendix H).

4.8.2.5 Attitudes towards abstinence

Respondents were asked what they thought about abstinence. This item consists of 6 sub-items in E5, giving a total score of 30 (Table 4.56).

Table 4.56: Attitudes towards abstinence (E5 in questionnaire)

E5. Statements about attitudes towards abstinence (6 sub-items)							
Groups	Sex / Group	N	Mean (M of 5 points)	SD	Diff. of M	t-value	p-value
Experimental (n=193)	Male	98	20.08 (3.35)	3.99	-2.52	-4.775	0.000
	Female	95	22.60 (3.77)	3.33			
Control (n=199)	Male	87	18.54 (3.09)	3.90	-3.32	-5.925	0.000
	Female	112	21.86 (3.64)	3.93			
Experimental & Control	Experiment	193	21.32 (3.55)	3.88	0.91	2.225	0.027
	Control	199	20.41 (3.40)	4.24			

In Table 4.56 it was computed that the mean score for attitudes towards abstinence was 20.08 (3.35) for males, compared to 22.60 (3.77) for females in the experimental group. It was observed that females had more positive attitudes towards abstinence than males; this represented a significant difference between males and females in the experimental group ($p<0.001$). In the control group the mean scores for males and females were respectively 18.54 (3.09) and 21.86 (3.64). The mean score for females was 3.32 higher than the mean score for males, which is a significant difference ($p<0.001$). A significant difference was also observed between the two groups ($p=0.027$). The attitude towards abstinence in males and females in the experimental group was more positive than in the control group.

Females in both groups, but particularly in the experimental group, were more positive towards this item than males. The same was found with regard to premarital intercourse, but the attitude towards abstinence was slightly less positive.

4.8.2.6 Attitudes towards pregnancy

The results of attitudes towards pregnancy are provided in Table 4.57.

Table 4.57: Attitudes towards pregnancy (E6 in questionnaire)

E6. Attitudes towards pregnancy (5 sub-items)							
Groups	Sex / Group	N	Mean (M of 5 points)	SD	Diff. of M	t-value	p-value
Experimental (n=193)	Male	98	17.41 (3.48)	3.17	0.57	1.301	0.195
	Female	95	16.84 (3.37)	2.86			
Control (n=199)	Male	87	15.45 (3.09)	3.44	-0.82	-1.727	0.086
	Female	112	16.27 (3.25)	3.23			
Experimental & Control	Experiment	193	17.13 (3.89)	3.03	1.22	3.787	0.000
	Control	199	15.91 (3.18)	3.34			

The item dealing with attitudes towards pregnancy consists of 5 sub-items in item E6. The total score is therefore 25. In Table 4.57 the mean score for attitudes towards pregnancy was 17.41 (3.48) for males, and 16.84 (3.37) for females in the experimental group. It was observed that there was no difference between males and females in the experimental group. In the control group, the mean score for males and females was respectively 15.45 (3.09) and 16.27 (3.25). Statistically there was no significant difference between males and females. The mean scores of the two groups were compared: the experimental group scored 1.22 more than the control group. It was observed that the attitudes towards preventing pregnancy in the experimental group were more positive than in the control group ($p<0.001$).

The males in the experimental group had more positive attitudes towards preventing pregnancy than the other respondents, even though females displayed more knowledge about

pregnancy than the males. They felt responsible for their sexual behaviour and their present position, and this seems to be the effect of the sexuality education.

4.8.2.7 Attitudes towards induced abortion

Respondents were probed about induced abortion in 7 sub-items (Table 4.58).

Table 4.58: Attitudes towards induced abortion (E7 in questionnaire)

E7. Attitudes towards induced abortion (7 sub-items)							
Groups	Sex / Group	N	Mean (M of 5 points)	SD	Diff. of M	t-value	p-value
Experimental (n=193)	Male	98	26.77 (3.82)	4.74	-0.91	-1.500	0.134
	Female	95	27.67 (3.95)	3.58			
Control (n=199)	Male	87	24.37 (3.48)	4.81	-1.48	-2.326	0.021
	Female	112	25.85 (3.69)	3.95			
Experimental & Control	Experiment	193	27.21 (3.89)	4.22	2.01	4.618	0.000
	Control	199	25.20 (3.60)	4.40			

The item dealing with attitudes towards induced abortion consists of 7 sub-items in item E7. Therefore, the total score is 35. In Table 4.58 it was computed that the mean scores for attitudes towards induced abortion in the experimental group were 26.77 (3.82) for males and 27.67 (3.95) for females, and in the control group it was 24.37 (3.48) for males and 25.85 (3.69) for females. It was observed that the females in both groups were opposed to induced abortion. The difference between the mean scores of the groups was 2.01. It was observed that there was a significant difference between the two groups ($p<0.001$).

All respondents displayed negative attitudes towards abortion. They felt that abortion is equal to murder, and they worried about the side-effects of abortion (Appendix H). Females had more negative attitudes towards abortion than males, particularly the females in the experimental group.

4.8.2.8 Attitudes towards contraception

Respondents also had to indicate what they thought about contraception in 8 sub-items. The results of attitudes towards contraception are provided in Table 4.59.

Table 4.59: Attitudes towards contraception (E8 in questionnaire)

E8. Attitudes towards contraception (8 sub-items)							
Groups	Sex / Group	N	Mean (M of 5 points)	SD	Diff. of M	t-value	p-value
Experimental (n=193)	Male	98	29.53 (3.69)	4.00	-0.86	-1.472	0.143
	Female	95	30.39 (3.80)	4.10			
Control (n=199)	Male	87	27.45 (3.43)	3.93	0.18	0.336	0.738
	Female	112	27.27 (3.41)	3.63			
Experimental & Control	Experiment	193	29.25 (3.74)	4.70	2.61	6.600	0.000
	Control	199	27.35 (3.42)	4.30			

The item dealing with attitudes towards contraception involves 8 sub-items in E8. The total score is thus 40. In Table 4.59 the mean scores for contraception in the experimental group were 29.53 (3.69) for males and 30.39 (3.80) for females. There was no significant difference ($p=0.143$). In the control group the mean scores for males and females were respectively 27.45 (3.43) and 27.27 (3.41). There was also no significant difference between the two sexes. However, it was observed that the difference between the mean scores of the two groups was 1.28, which is a significant difference ($p<0.001$).

Therefore, the experimental group was more positive, and the females in this group scored highest in positive attitudes towards the use of contraceptives. This seems to be the effect of the sexuality education, because their score for knowledge on contraception was also the highest. They understood the necessity of contraception in that they respected the dignity of life of the foetus, they were concerned about the psychological and physical side-effects of

unwanted pregnancies and abortion, and they were concerned about the contraception needs of their partners (as illustrated in Appendix H).

4.8.2.9 Attitudes towards sexually transmitted diseases

Respondents were asked what they thought about sexually transmitted diseases (STDs) on 7 sub-items (Table 4.60).

Table 4.60: Attitudes towards sexually transmitted diseases (E9 in questionnaire)

E9. Statement about attitudes towards STDs (7 sub-items)							
Groups	Sex / Group	N	Mean (M of 5 points)	SD	Diff. of M	t-value	p-value
Experimental (n=193)	Male	98	27.55 (3.94)	5.34	-0.73	-1.084	0.280
	Female	95	28.28 (4.04)	3.93			
Control (n=199)	Male	87	25.22 (3.60)	4.55	-0.34	-0.544	0.587
	female	112	25.55 (3.65)	4.11			
Experimental & Control	Experiment	193	27.91 (3.99)	4.70	2.50	5.580	0.000
	Control	199	25.41 (3.63)	4.30			

The item on STDs involves 7 sub-items in E9. Therefore, the total score is 35. In Table 4.60 the mean score of STDs was 27.55 (3.94) for males and 28.28 (4.04) for females in the experimental group. In the control group, the mean score for STDs for males and females was respectively 25.22 (3.60) and 25.55 (3.60). There was no significant difference between the two sexes. However, it was observed that there was a significant difference between the experimental and control groups ($p<0.001$). The difference between the mean scores of the two groups was 2.50, which shows that the experimental group were more concerned about STDs than the control group after the sexuality education programme.

4.8.2.10 Attitudes towards HIV and AIDS

Respondents were asked for their attitudes about HIV and AIDS on 11 sub-items (Table 4.61).

Table 4.61: Statements of attitudes towards HIV and AIDS (E10 in questionnaire)

E10. Attitudes towards HIV/AIDS (11 sub-items)							
Groups	Sex / Group	N	Mean (M of 5 points)	SD	Diff. of M	t-value	p-value
Experimental (n=193)	Male	98	33.29 (3.03)	6.41	3.12	3.181	0.002
	Female	95	30.17 (2.74)	7.19			
Control (n=199)	Male	87	28.03 (2.55)	6.59	0.15	0.173	0.863
	female	112	27.88 (2.53)	5.71			
Experimental & Control	Experiment	193	31.75 (2.89)	6.97	3.80	5.757	0.000
	Control	199	27.95 (2.54)	6.09			

The item on attitudes toward HIV/AIDS involves 11 sub-items in E10. The total score is thus 55. In Table 4.61 the mean score for HIV/AIDS was 33.29 (3.03) for males and 30.17 (2.74) for females in the experimental group. It was observed the males had more reservations towards HIV/AIDS infected patients than females ($p=0.002$). In the control group, the mean score for HIV/AIDS was 28.03 (2.55) for males and 27.88 (2.53) for females. There was no significant difference between males and females in the control group. The difference between the mean scores of the experimental and control groups, however, was 3.80, which is a significant difference ($p<0.001$). The experimental group still had reservations towards HIV/AIDS infected patients.

Most respondents in the experimental group understood the route of transmission of HIV from AIDS patients, such as that HIV cannot be transmitted through ordinary everyday

activities and light physical contact with AIDS patients, but they still revealed a negative attitude towards living with AIDS patients.

4.8.2.11 Attitudes towards oneself

Respondents were asked their opinion of themselves on 12 sub-items (Table 4.62).

Table 4.62: Attitudes towards oneself (E11 in questionnaire)

E11. Attitudes towards oneself (12 sub-items)							
Groups	Sex / Group	N	Mean (M of 5 points)	SD	Diff. of M	t-value	p-value
Experimental (n=193)	Male	98	40.30 (3.36)	4.86	-1.10	-1.656	0.099
	Female	95	41.40 (3.45)	4.38			
Control (n=199)	Male	87	39.25 (3.27)	5.34	-0.90	-1.136	0.257
	Female	112	40.15 (3.35)	5.68			
Experimental & Control	Experiment	193	40.84 (3.40)	4.65	1.08	2.088	0.037
	Control	199	39.76 (3.31)	5.54			

The item on attitudes toward oneself involves 12 sub-items in E11. Therefore, the total score is 55. In Table 4.62 the mean score of attitudes toward oneself in the experimental group was 40.30 (3.36) for males and 41.40 (3.45) for females, and the mean score in the control group was 39.25 (3.27) for males and 40.15 (3.35) for females. There was no significant difference between the sexes in each group. However, there was a significant difference between the two groups, as the difference between the mean scores is 1.08 (p=0.037). This may be ascribed to the effect of sexuality education, which created self-awareness in the experimental group.

Table 4.50 and E11-1, E11-2 and E11-4 in Appendix H, reveals that although sexuality education did not make a big difference, it did increase the value of the learners in that they

could be satisfied with their own body, they felt happy because they were alive, and they were proud of themselves. It may thus be concluded that sexuality education develops positive self-values and self-esteem. As a result, sexuality education creates a positive attitude towards sexuality and it can be presumed that adolescents will make the right sexual decision when they are confronted with a choice.

4.8.2.12 Attitudes towards sexuality education

Respondents were asked about their thoughts on the sexuality education they received from their parents or school, in 5 sub-items (Table 4.63).

Table 4.63: Attitudes towards sexuality education (E12 in questionnaire)

E12. Statements about attitudes towards sexuality education (5 sub-items)							
Groups	Sex / Group	N	Mean (M of 5 points)	SD	Diff. of M	t-value	p-value
Experimental (n=193)	Male	98	16.19 (3.24)	2.87	-0.89	-2.109	0.036
	Female	95	17.08 (3.42)	3.00			
Control (n=199)	Male	87	13.86 (2.77)	3.22	-0.25	-0.600	0.549
	Female	112	14.11 (2.82)	2.54			
Experimental & Control	Experiment	193	16.63 (3.32)	2.96	2.63	8.966	0.000
	Control	199	14.00 (2.80)	2.85			

The item dealing with attitudes towards sexuality education involves 5 sub-items in E12. The total score is thus 25. In Table 4.63 the mean score of attitudes towards sexuality education for males and females in the experimental group was respectively 16.19 (3.24) and 17.08 (3.42). It is observed that the females had more positive attitudes towards sexuality education ($p=0.036$). In the control group, the mean scores for males and females were respectively 13.86 (2.77) and 14.11 (2.82), which are both slightly negative. There was no significant difference between the two sexes. However, the difference between the mean scores of the two groups was 2.63, and which is a very significant difference ($p<0.001$).

Therefore, the experimental group shows much more positive attitudes. The females scored the highest after sexuality education, which is an indication of their satisfaction with their recent sexuality education.

4.8.3 Summary

The items on attitudes towards sexual matters show that the experimental group has a much higher score for attitudes towards sexual matters after the sexuality education programme than the control group, and especially with regard to "sexuality", "pregnancy", "induced abortion" "contraception" "STDs" "HIV/AIDS" and "sexuality education". Before the sexuality education there were no significant differences between the two groups in this regard. Males also had more positive attitudes towards "sexuality" and "HIV/AIDS", and females had more positive attitudes towards "induced abortion" "STDs" "oneself", "sexuality education", "premarital sexual intercourse" and "abstinence".

The result of statistical analysis clearly shows that sexuality education helped to form more positive attitudes towards sexual matters. The next section will focus on the correlation between sexual knowledge, sexual attitudes, and other variables.

4.9 CORRELATION BETWEEN SEXUAL KNOWLEDGE, SEXUAL ATTITUDES AND OTHER VARIABLES

A major purpose of the study was the establishment of the relationship between "knowledge" and "attitudes" as far as sexual matters are concerned. To this end, there will be looked at the correlation between attitudes and some other variables such as religious belief, times of sexuality education, atmosphere in the home and the financial situation in the home. These aspects are analysed by means of Pearson correlation coefficient statistics. The correlation matrices are provided in Tables 4.64 to 4.71, and explained by the "Pearson

correlation coefficient" and "p-value in two-tailed test". The knowledge items are presented on the top and the attitudes items on the left in Tables 4.65~4.68.

4.9.1 Correlation between sexual knowledge and sexual attitudes

Firstly, the correlation between sexual knowledge and sexual attitudes will be discussed. The correlation coefficient and p-value between "sexual knowledge and sexual attitudes" are shown in Table 4.64.

Table 4.64: Correlation between sexual knowledge and sexual attitudes

	Sexual knowledge
Sexual attitudes	0.410 (p<0.001)

In Table 4.64 it appears that there is a positive correlation between sexual knowledge and attitudes, which differs significantly from zero (p<0.001). This linear relationship is displayed graphically in Figure 1.

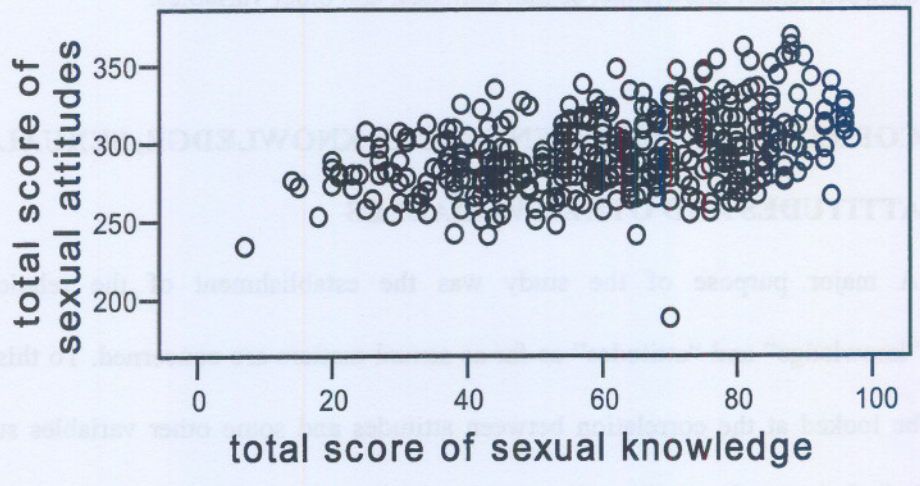


Figure 4.1: Correlation between sexual knowledge and sexual attitudes

From the results as shown in Table 4.64 it appears that the more the sexual knowledge, the more positive sexual attitudes are. The correlation between sexual knowledge and attitudes (Section C and Section E in Questionnaire) is discussed below.

4.9.2 Correlation between knowledge and attitudes of sexual related matters in an item

The correlation between knowledge and attitudes regarding topics of "sexuality, physiology and oneself", "sexual desire and masturbation", "pregnancy, abortion, and contraception", "STDs and HIV/AIDS", and "premarital sexual intercourse", "abstinence", "oneself" and "religious belief" will be discussed.

4.9.2.1 The correlation between knowledge of and attitudes towards "sexuality", "physiology" and "oneself"

There is a correlation between the knowledge of and attitudes towards "sexuality", "physiology" and "oneself", as illustrated in Table 4.65.

Table 4.65: Correlation between knowledge and attitudes towards "sexuality", "knowledge of physiology", "attitudes towards oneself", and "sexual knowledge and sexual attitudes"

	Sexual knowledge	Sexuality	Physiology
Sexual attitudes	0.410 (p<0.001)	0.318 (p<0 .001)	0.294 (p<0.001)
Sexuality	0.420 (p<0.001)	0.396 (p<0.001)	0.321 (p<0 .001)
Oneself	0.116 (p=0.022)	0.081 (p=0.108)	0.093 (p=0.065)

In Table 4.65 it appears that there is a positive correlation between the knowledge and attitudes of sexuality (r=0.420, p<0.001). It was found that the more knowledge is accumulated the more positive attitudes towards sexuality are. There are also a small

positive correlation between the sexual knowledge and attitudes towards oneself (r=0.116, p=0.022); and it was found that the attitudes towards oneself did not correlate with the knowledge of sexuality or physiology. On the other hand, there was a positive correlation between the knowledge of sexuality or sexual attitudes (r=0.318, p<0.001), and the knowledge of physiology and sexual attitudes (r=0.294, p<0.001). Therefore, it was observed that more knowledge can be instrumental in developing more positive sexual attitudes.

4.9.2.2 The correlation between knowledge of and attitudes towards "sexual desire" and "masturbation"

The correlation between "the knowledge of and attitudes towards sexual desire", "the knowledge of and attitudes towards masturbation", and "sexual desire and masturbation" is presented in Table 4.66.

Table 4.66: Correlation between knowledge and attitudes of "sexual desire" and "masturbation"

		Knowledge	
		Sexual desire	Masturbation
Attitudes	Sexual desire	.242 (p<0.001)	0.093 (p=0.066)
	Masturbation	.202(p<0.001)	0.137 (p=0.007)

Table 4.66 shows there was a positive correlation between the knowledge of and attitudes towards sexual desire (r=0.242, p<0.001), also between the knowledge of and attitudes towards masturbation (r=0.137. p=0.007). On the other hand, there was a positive correlation between the knowledge of sexual desire and the attitudes towards masturbation (r=0.202, p<0.001), but there was no correlation between the knowledge of masturbation and the attitudes towards sexual desire (r=0.093, p=0.066). It may therefore be assumed that

the knowledge of sexual desire can affect attitudes towards both sexual desire and masturbation.

4.9.2.3 The correlation between knowledge of and attitudes towards "pregnancy", "abortion", and "contraception"

The correlation between "knowledge and attitudes about pregnancy," "knowledge and attitudes about abortion" and "knowledge and attitudes about contraception" is provided in Table 4.67. A correlation was also found between the knowledge regarding each item and the attitudes regarding each item.

Table 4.67: Correlation between the knowledge and attitudes about "pregnancy", "abortion", and "contraception"

	Pregnancy	Abortion	Contraception
Pregnancy	0.142 (p=0.005)	0.112 (p=0.027)	0.094 (p=0.064)
Abortion	0.250 (p<0.001)	0.233 (p<0.001)	0.231 (p<0.001)
Contraception	0.312 (p<0.001)	0.172 (p=0.001)	0.315 (p<0.001)

In Table 4.67 it appears that there was a positive correlation between the knowledge of and attitudes towards "pregnancy", "abortion", and "contraception". In other words, the more knowledgeable in each area, the more positive attitudes develop towards them. Furthermore, the knowledge of pregnancy was related to the attitudes towards abortion ($r=0.250$, $p<0.001$), but the knowledge of contraception was not related to the attitudes towards pregnancy ($r=0.094$. $p=0.064$), although the knowledge of pregnancy showed a positive correlation with the attitudes towards contraception ($r=0.312$, $p<0.001$).

Therefore, more knowledge about pregnancy and contraception can be instrumental in developing more positive attitudes towards contraception.

4.9.2.4 The correlation between knowledge of and attitudes towards "STDs" and "HIV/AIDS"

A correlation was found between "the knowledge of and attitudes towards STDs" and "the knowledge of and attitudes towards HIV/AIDS" (Table 4.68).

Table 4.68: Correlation between the knowledge and attitudes about "STDs" and "HIV/AIDS"

	STD	HIV/AIDS
STD	0.283 (p<0 .001)	0.232 (p<0 .001)
HIV/AIDS	0.146 (p=0 .004)	0.252 (p<0 .001)

In Table 4.68 there was also a positive correlation between the knowledge and attitude regarding STDS and HIV/AID. In particular it was observed that more knowledge of HIV/AIDS leads to more positive attitudes towards STDs ($p<0.001$), which in turn leads to more positive attitudes towards HIV/AIDS ($p=0.004$).

4.9.2.5 The correlation between knowledge of and attitudes towards "premarital sexual intercourse", "abstinence", "oneself", and "religious belief"

A correlation was found between the knowledge of and attitude towards "premarital sexual intercourse", "abstinence", "oneself" and "religious belief" (Table 4.69).

Table 4.69: Correlation between knowledge of and attitudes towards "premarital sex", "abstinence", "oneself", and "religious belief"

	Premarital sex	Abstinence	Oneself
Sexual knowledge	0.063 (p=0.063)	0.085 (p=0.093)	0.116 (p=0.022)
Sexual attitudes	0.617(p<0.001)	0.522(p<0.001)	0.496(p<0.001)
Religious belief	0.020 (p=0.689)	0.085 (p=0.092)	0.018 (p=0.717)

In Table 4.69 no correlation was found between sexual knowledge and premarital sexual intercourse or abstinence, but there was a strong positive correlation between sexual attitudes and both premarital sexual intercourse ($r=0.617$, $p<0.001$) and abstinence ($r=0.522$, $p<0.001$). A small positive correlation was also found between sexual knowledge and attitudes towards oneself ($r=0.116$, $p=0.022$) but there was a bigger positive correlation between sexual attitudes and the attitudes towards oneself ($r=0.496$, $p<0.001$). There was no correlation between "religious belief" and attitudes towards "premarital sex", "abstinence" and "oneself".

Thus, it was observed that premarital sexual intercourse and abstinence are not influenced by sexual knowledge but by sexual attitudes. The attitude towards oneself is influenced by sexual knowledge and attitudes, and the attitudes towards premarital sexual intercourse, abstinence, and oneself are not influenced by religious belief. Therefore, positive sexual attitudes can positively influence behaviour leading towards premarital sexual intercourse and abstinence.

4.9.2.6 The correlation between "times of sexuality education", "satisfaction with sexuality education", and "the degree to which sexuality education increases sexual knowledge and positive sexual attitudes"

A correlation was found between sexual knowledge on the one hand and "the times of sexuality education", "satisfaction with sexuality education", and "the degree to which sexuality education increases sexual knowledge and positive sexual attitudes". Table 4.70 also illustrates a correlation between sexual attitudes and sexual knowledge.

Table 4.70: Correlation between sexual knowledge and sexual attitudes regarding "the times of sexuality education", "the attitudes towards sexuality education" and "degree to which sexuality education increases sexual knowledge and positive sexual attitudes"

	Times of SE	Satisfaction of SE	Helping degree of SE
Sexual knowledge	0.488(p<0.001)	0.388(p<0.001)	0.434(p<0.001)
Sexual attitudes	0.372(p<0.001)	0.454(p<0.001)	0.303(p<0.001)

Table 4.70 shows that there was a positive correlation between the times of sexuality education and both sexual knowledge and attitudes. In particular, the times of sexuality education correlated more closely with sexual knowledge (r=0.488) than with sexual attitudes (r=0.372). However, sexual attitudes was more positively related to the satisfaction with sexuality education (r=0.454) than with sexual knowledge (r=0.388). Sexual education also promoted sexual knowledge to a greater degree than sexual attitudes. Therefore, spending more time on sexuality education could lead to more sexual knowledge and more positive sexual attitudes; and, an increase in sexual knowledge can possibly prevent sexual risks. Moreover, it was observed that more satisfaction with sexuality education could lead to more positive attitudes.

4.9.2.7 The correlation between "the relationship with parents", "the financial situation in the home", "atmosphere in the home", "attitudes towards oneself", and "sexual attitudes"

A correlation was found between "the relationship with parents" and "the financial situation in the home" on the one hand and "attitudes towards oneself", "sexual attitudes", "atmosphere in the home", and "the financial situation in the home" on the other hand (Table 4.71).

Table 4.71: Correlation between "the relationship with parents" and " the financial situation in the home" on the one hand and "attitudes towards oneself", "sexual attitudes", "atmosphere in the home", and "the financial situation in the home" on the other hand

	Oneself	Sexual attitudes	Atmosphere	Financial
Parents	0.300(p<0.001)	0.177(p<0.001)	0.013(p=0.795)	0.201(p<0.001)
Financial	0.039 (p=0.444)	0.148(p=0.003)	0.029(p=0.563)	1.000

Table 4.71 shows there was a positive correlation between the relationship with parents and the attitudes towards oneself (r=0.300, p<0.001), and it was also observed that there is a positive correlation between the financial situation and both the relationship with parents and sexual attitudes (p<0.001, p=0.003). However, the atmosphere in the home was not related to the relationship with parents or the financial situation (p=0.795, p=0.563).

Thus, a positive correlation was found between the knowledge of and attitudes towards each item. It could be argued that it is necessary to spend sufficient time on the teaching of sexuality education and to consider the methods and contents of sexuality education because

increased sexual knowledge can lead to more positive attitudes towards sexual matters and prevent sexual risks.

Moreover, the correct sexual knowledge can lead to more positive attitudes towards oneself and it can provide a basis which enables adolescents to solve sexual problems by themselves. Furthermore, conversation and communication between parents and their children are necessary, as there is a positive correlation between the relationship with parents and the development of sexual attitudes.

4.10 SUMMARY

The data provided in the questionnaire formed the basis of the statistical analysis. Tests used for analysing the data included cross-tabulation for frequency, t-tests, paired t-tests, chi-square tests, and the Pearson correlation coefficient.

After evaluating the results the following can be concluded:

The purpose of this study was to investigate the effect of the sexuality education programmes on sexual knowledge and attitudes of adolescents over a period of 15 sessions. This was done by comparing an experimental group that participated in sexuality education with a control group that only received reading material. The contents of the reading material were similar to the contents of the course material used during sexuality education. The effect of the sexuality education programmes obviously increased sexual knowledge and brought about a positive change in sexual attitudes; much more than among the group who only received reading matter. Therefore, teaching sexuality education with a specific content and specific approach can yield better results because it can help adolescents to

understand sexual issues, change their attitude and it can increase their interest and participation in the learning process.

In Chapter 5 the conclusion, limitations and recommendations of this study will be presented, based on the data and findings.

CHAPTER FIVE

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

The results were discussed in the previous chapter. A descriptive profile of the sample was given and results were divided into categories pertaining to family and the opposite sex; respondents' experiences related to sexuality; experience of sexuality education at school, knowledge about sexuality and attitudes towards sexuality. A correlation was found between sexual knowledge, sexual attitudes and other variables. In this chapter, the conclusions, limitations of the study and recommendations will be discussed.

5.2 CONCLUSIONS

Based on the data and findings of the study, the conclusions will be discussed under seven main headings, namely: bibliographical data; relationships with family and the opposite sex; personal sexual experience; experience of sexuality education at school; knowledge about sexuality; attitudes about sexuality; and correlations between sexual knowledge, sexual attitudes and other variables.

5.2.1 Bibliographical data

The bibliographical data of both the experimental and control groups showed that both groups lived in very similar conditions. The groups were compared with reference to their age, religion, having a private room, the size of their family, and with whom they lived.

Most respondents were aged 15, which is the middle period of adolescence. Most respondents (approximately two thirds) reported that they were religious. This may have a positive effect on sexual behaviour and may cause less problematic sexual behaviour. Most respondents were part of a family of four on average, and they had their own rooms or shared it with siblings. Privacy did not seem to be a problem. It may be concluded that most

adolescents in this study come from stable, liberal and warm families in the middle income group. It seems that the atmosphere in homes is getting more liberal in Korea.

5.2.2 Relationships with family and the opposite sex

Most respondents had good relationships with their parents. However, the adolescents, and especially the males, did not receive sexual information from their parents. It seems that males find it harder to talk about sexual issues with their parents than females. Although a few respondents had been talking with their parents, the sexual issues they discussed with them were superficial in nature.

However, most respondents talked about sexual issues with their friends to solve their sexual curiosity. Accordingly, they got a lot of sexual information from their friends. Their sexual information also came from visiting lascivious websites on the internet and from TV. Males showed more interest in sexual matters and in searching for it on the internet than females. It may thus be concluded that adolescents, especially young adolescents, seem to experience problems obtaining sufficient information to satisfy their sexual curiosity and that they receive limited information from their teachers.

Almost half the respondents had a relationship with the opposite sex. In most cases they had 1 to 3 relationships, and these relationships were over short periods. Most respondents had their first relationship with the opposite sex around the age of 15. Thus, this age group apparently has a strong interest in the opposite sex.

All respondents also preferred to kiss a friend of the opposite sex when they were dating. Furthermore, some males wanted coitus, while females wanted petting when dating. It seems that males act more on sexual instinct, while females tend to be more romantically inclined.

However, only one out of five of respondents who had friends from the opposite sex had ever kissed and most respondents had no serious sexual experiences, e.g. sexual intercourse, STDs, pregnancy or abortion. Very few respondents had sexual intercourse and those who did indicated that their motivation was "curiosity". Males mentioned the "lack of opportunity" as the reason for not having had sexual intercourse yet.

The conclusion from the findings is therefore that adolescents have friends of the opposite sex but most of them do not advance to sexual intercourse. However, it may also be concluded that they may advance to sexual intercourse when they are dating because kissing usually can be an intense and profound experience and male adolescents want to have sexual intercourse when they have an opportunity.

The conclusion may therefore be made that males have more permissive attitudes towards sexual intercourse before marriage than females. Although the findings project that the males have permissive premarital sexual intercourse, it became clear in this study that after having received sexuality education, they reported to start with premarital sexual intercourse at an older age of 20. It also became clear that as a result of sexuality education, more adolescents considered having sex only after marriage, which is more responsible sexual behaviour.

5.2.3 Personal sexual experience of respondents

The results showed that not all male respondents had experienced nocturnal emission at the age of 15. Some males indicated their first experience at the age of 13~14 years. Female respondents menstruated slightly earlier, at the age of 12~13. Females thus seem to develop physiologically more quickly than males.

It becomes clear from the findings that the current sexual maturation of adolescents occurs at an earlier age in their sexual development than in the past. Male respondents indicate that they masturbate much more than females and also at an earlier age. The age of the first experience for males is 13~14, and for females it is 14~15. Thus, it seems that in males the beginning of masturbation correlates with the first experience of nocturnal emission. The secondary sex characteristics appear earlier in females than in males, but the onset of masturbation in males appears at an earlier age in males and is practiced more often than by females. The conclusion from the research results as well as the literature study is that testosterone has the biggest direct effect on sexual behaviour, causing males to masturbate more than females.

Respondents appear to have few sexual problems, because their sexual experiences are limited. Sexual experiences might explain why females are pre-occupied with their breasts, while males have a bigger sexual desire, masturbate more often and are more interested in the male genital organ.

When adolescents have sexual problems, they prefer to discuss it with their friends, as they feel more comfortable with them. Most respondents found it difficult to talk to their parents about sexual problems. However, after receiving sexuality education they preferred counselling by sexuality educators rather than by friends. It may be concluded that the age group in this study is the correct target group for the sexuality education programme, as they have had relatively little sexual experiences, are becoming more interested in sex and have experienced relatively few sexual problems.

5.2.4 Experience of sexuality education at school

All the respondents received some form of sexuality education at school, but mostly by outside facilitators.

The present practice at schools is to use short programmes with only limited information, and with correspondingly limited retention of the information. The interaction between the learners and the sexuality educator is even more limited. The present practice of sexuality education at schools did not seem to have any significant influence on learners.

There was a difference between the contents of interest to males and those of interest to females. Males expressed a bigger interest in sexual activities such as nocturnal emission, masturbation, sexual desire, and love and sex, while females were more interested in sexual health which directly affected them, such as the reproductive anatomy and functions, pregnancy and delivery, abortion, contraceptives, the relationship with the opposite sex, and sexual risks.

From the results of this study it is clear that after the experimental group was exposed to the sexuality education programme, 85.5% of respondents thought that receiving sexuality education could be helpful in their own lives, and indicated that they would be interested to participate in such a programme. On the other hand, because the control group was not exposed to the sexuality education programme and only received reading matter, only 31.6% indicated an interest in such a programme. It may therefore be concluded that the sexuality education programme increased learners' interest.

5.2.5 Knowledge about sexuality

Both the experimental and control groups scored low on sexual knowledge in the pre-test before the sexuality education programme was presented. However, after receiving the sexuality education programme, the post-test revealed a big difference in the knowledge gained by the experimental group in all 11 items. The sexual knowledge of the experimental group had doubled.

After being exposed to the sexuality education programme, a difference was observed between the males and females in their knowledge score of the 11 items of the test. The males scored higher on 4 items, namely sex hormonal effect, sexual desire, masturbation, and HIV/Aids, while female scored higher on 7 items, namely sexuality and sex, physiological function, genital health, pregnancy, abortion, contraception, and STDs.

It became clear from these results that males and females had more knowledge about sexual issues which interested them: males had better knowledge about sex hormonal effects like nocturnal emission, sexual desire and masturbation, while females had better knowledge about genital health, pregnancy, abortion and contraception. Therefore, it is recommended that certain sexual themes should be discussed separately with the two genders in the sexuality education programme, although all themes should be covered for both genders.

It may also be concluded from the results that the theoretical sections in sessions 1~8 of the sexuality education programme comprehensively covered the necessary contents of sexuality and helped to increase adolescents' sexual knowledge. The interactive method of presentation by a knowledgeable sexuality educator for fifteen consecutive weeks ensured internalisation and retention of the information by learners. The teaching methods and materials used also contributed to the increase in sexual knowledge and general interest.

Furthermore, involving peers in the sexuality education programme was meaningful. As peers they influenced one another as they shared similar problems.

5.2.6 Attitudes about sexuality

In both the experimental and control group a slightly positive attitude was observed in the pre-test. However, after the experimental group had received the sexuality education programme, the post-test revealed that the experimental group showed a much more positive change in sexual attitudes in all the items on attitudes. The degree of change among females was slightly more than among males.

Differences where noted between males and females with concern to the various items, in that the males had a more positive attitude towards sexuality than the females. Males were more open towards their sexual desires and towards masturbation. However, after the sexuality education programme, females had a better understanding of masturbation and did not feel as guilty and shameful about masturbating as before. On the item of pregnancy, the females felt more responsible before receiving the sexuality education programme, but the males scored higher on this item after receiving education on this theme. The other items showed that females felt more prudent towards premarital sexual intercourse, abstinence, abortion, contraception, and STDs.

After receiving the sexuality education programme, all learners felt that keeping one's virginity or abstinence until marriage is important, and they appreciated the weight of the responsibility of a pregnancy. The learners also realised the importance of contraception because abortion could amount to murder, damage the female's body and be a traumatic experience.

Responses to an item on HIV/Aids showed that males changed their attitudes more positively towards Aids infected patients than females. However, even though the attitude towards Aids patients became positive, both males and females still revealed a negative attitude towards using the same toilet as an Aids infected person as well as towards hugging and kissing such a person.

It may therefore be concluded that sessions 9~15, focusing on attitudinal changes in the sexuality education programme, were successful, as it did bring about a positive change in learners' attitudes.

The interactive method of presentation, followed by an open discussion between peers in a warm and understanding atmosphere, encouraged more learners to participate and to talk more openly and freely. The rapport which was developed with the learners further motivated open discussions.

It may be concluded that the sexuality education programme could be of benefit to the learners to develop and clarify their own values based on correct information and to learn to use and apply this knowledge in their decision-making. Ultimately this will result in more responsible sexual behaviour and relationships.

5.2.7 Correlation between sexual knowledge, sexual attitudes, and other variables

The correlation between sexual knowledge and sexual attitudes will be discussed first. Thereafter attention will be paid to the correlation between sexual knowledge and attitudes with sexuality education; the adolescent's sexual attitude and relationship with his/her parents; and sexual attitude and religious belief in other variables.

It can be concluded from this study that sexual knowledge is closely related to positive attitudes regarding sexual matters. This was clearly illustrated when better informed respondents indicated more positive attitudes towards sexual behaviour. For example, improved understanding of STDs and HIV/Aids could also change perceptions into more positive attitudes for adolescents to prevent and protect themselves from STDs and HIV infection by using condoms or by increasing abstinence from sexual intercourse.

The amount of sexual knowledge which is gained also depends on the amount of time spent on the sexuality education. It is important to note that the learners' attitudes are influenced by how they perceive the class, and that spending time and effort on proper education may contribute towards ensuring a positive experience in the class. When learners experiences sexual knowledge as positive their attitude towards sexual matters will also become more positive.

As a result, the more the hours spent on sexuality education, the bigger the positive affect will be. It is important that learners must be satisfied by such a programme and that they must feel that their curiosity has been addressed. Furthermore, there is a direct link between the amount of interest shown by adolescents during sexuality education and their increase in knowledge.

The conclusion can also be made in this regard that if the learners are satisfied with the sexuality education and gain proper knowledge, the proper knowledge will lead to a proper attitude, and a proper attitude will help learners make better informed decisions on their own without seeking information from improper sources such as lascivious websites.

The relationship with the learners' parents also affects their attitude towards themselves and their sexuality. Consequently, a better relationship between parent and child will ensure a more positive sexual attitude. This is clearly evident in the correlation between the relationships with parents and learners' sexual attitudes.

Based on the results it may also be argued that attitudes towards sexual matters are not related to religious belief. Religious belief can no longer be seen as a factor in the sexual attitudes of adolescents, because adolescents who are non-believers as well as those who are religious believers tend to have liberal sexual attitudes. Both believers and non-believers may experience the same thoughts regarding premarital sex and abstinence, but being religious adds the dimension of sexual morals to the thought process. These sexual morals may lead to better control of problematic sexual behaviour.

Although religious belief in itself may not change sexual attitudes, sexuality education can help learners clarify their own sexual attitudes and values. Therefore, serious consideration should be given to offering a good sexuality education programme at school to help ensure a safer and healthier sexual life for the learners.

5.2.8 General conclusion

It becomes clear that comprehensive sexuality education to adolescents which focuses on knowledge and attitudes instead of relying only on reading material and self-study, can yield more effective results towards increased knowledge on the subject, and better knowledge can directly lead to a better and more positive attitude towards sexual matters.

It is also clear from the research that the schools are getting more open towards sexuality education for learners than in the past, but there is at present no specific person who is

responsible for sexuality education and neither is sufficient time allocated to sexuality education.

5.3 LIMITATIONS OF THE STUDY

The following limitations were encountered during the study:

1. The target subjects tested in this study were all part of two middle schools in Youngdo-gu, Busan. Therefore, it follows that applying these results to the rest of Korea can be seen as a gross generalisation of the results within this age group.

2. Another limitation of the investigation is the necessity to rely on self-reported measures. Thus, the accuracy of the answers depends on the respondents' attitude. Self-reports are not entirely reliable, but this method is the most commonly used in any kind of sexual research.

3. The third limitation pertains to the True/False/Don't know format of the section on sexual knowledge in the questionnaire. A correct answer may have been given even though it was a guess.

4. Another limitation involves sexual attitude. The section on sexual attitudes provides 5 scales, namely "Totally disagree" "Disagree" "Average" "Agree" and "Totally agree". The response "Average" could have been chosen when there was uncertainty or when respondents experienced difficulty in making a choice.

5. The questionnaire took approximately 20 to 40 min to complete. The reason for this difference was the varying lengths of motivations which different respondents

provided in the open-ended questions, especially in the section on sexual attitudes (section G).

5.4 RECOMMANDATIONS

It was found that the sexuality education programme led to an increase in sexual knowledge and positively enhanced the sexual attitudes of adolescents, based on more accurate sexual knowledge. These can lead to a more satisfying sexual life and the attainment of a harmonised and unified personality.

Consequently, the following recommendations can be made for the sexuality education programme to be presented at schools in Korea. These recommendations will ensure the effective use of the sexuality education programme by sexuality education educators. The discussion focuses on adolescents as the focus of education, the sexuality education programme, the sexuality education educator and general recommendations.

5.4.1 Adolescents as focus of education

- **Age**

The study showed that puberty starts at the age 10 to 11 for females and 12 to 13 for males. Most females experienced menarche at the age of 12 to 13 and most males started experiencing nocturnal emission at the age of 13 to 14. When they start showing secondary sexual characteristics, many young adolescents feel confused, excited, anxious or uncomfortable with these phenomena. Because of this, it is recommended that sexuality education should be presented in two phases, with phase one starting at an early age of 10 to 12 and focusing on the biological changes in the adolescent before the onset of pubescence, in order to eliminate their embarrassment and discomfort. The maturation phenomena should be discussed separately with males and females at this younger age, because the information

may embarrass them if the genders are mixed in a discussion. The anatomical and physiological female reproductive system and menstruation should be presented at the age of 10 (grade 4) for females. Special attention should be given to female genital hygiene during menstruation. For males, the anatomical and physiological changes of the male reproductive system, nocturnal emission, and masturbation should be presented at the age of 12 (grade 6). Male adolescents also need to be educated on male genital hygiene to prevent gland inflammation.

The second phase of the sexuality education programme should be presented for the group aged 15, in the 9th grade. The second phase should include the comprehensive sexuality education programme that was presented in this research.

- **Content**

Sexuality education should be presented to mixed groups at the age of 15 to enhance interaction at this age. However, specific gender issues should be educated separately for the two genders. Specific themes, like sexual desire and masturbation (for males) and pregnancy and parturition (for females), should be presented separately. All the themes should be followed up by discussions in small mixed groups, as both groups need to receive the total content of the sexuality education programme.

- **Size of groups**

When presenting the sexuality education programme, the number of learners per group is important. If the group is too big, there will be less concentration and participation. The number of students per group for presenting the sexuality education programme, therefore, should be no more than 20~25 when males and females are mixed. When more intimate topics are discussed, the size of groups should be around 15.

- **Source**

This study has found that students obtain their sexual knowledge mostly from their friends and think that a friend is the best person to counsel on a sexual problem. Because most adolescents rely on peers for sexual information, it is important to ensure that the peer group is well-equipped with accurate sexual knowledge in order to give correct information when they talk with their friends.

- **Timing**

Considering these facts, the sexuality education programme should be offered before adolescents are exposed to bad influences and wrong information. It should help them to obtain accurate sexual knowledge and to positively enhance their sexual attitudes and behaviour to prevent and protect them from sexual risks through the developing of responsible decision-making. The nature of such a sexuality education programme will be discussed below.

5.4.2 Sexuality education programme

The sexuality education programme should help each individual to understand himself/herself as a sexual being and to develop relationships and intimacy. It thus should prepare adolescents to have a healthy sexual awareness and a healthy personality.

Recommendations for the sexuality education programme will be aimed at adolescents, especially in the middle period of adolescence. Adolescents in this age group are very curious about sexual matters and try to imitate the sexual behaviour of adults. The results of this study has shown that conducting a sexuality education programme with comprehensive contents could lead to more positive sexual attitudes and an increase in sexual values, with accurate sexual knowledge. The content of sexuality education programme, presentation of

sexuality education programme, and atmosphere between the educator and the learners will be the focus of the next section.

5.4.2.1 Content of sexuality education programme

It should be remembered that knowledge alone is not sufficient to change sexual behaviour, because it is difficult to change sexual attitudes and behaviour after individuals had developed certain patterns. Fragmented sexuality education with insufficient content may cause confusion and encourage sex-related behaviour. Therefore, sexuality education should be sufficient and comprehensive in content in order to increase the adolescents' sexual values and to improve their sexual attitudes based on accurate sexual knowledge.

Comprehensive content should not only include sexual information but should also encourage the clarifying of values and the development of decision-making and communication skills that would lead toward more responsible sexual behaviour and relationships. The sexuality education programme should thus offer a comprehensive content and should cover all the following themes: sex and sexuality; anatomical and physiological functioning of the reproductive system (including menstruation in females and nocturnal emission in males); pregnancy, abortion, contraception, STDs and HIV/Aids; interpersonal skills; responsible decision-making skills; expression and assertiveness; prevention against sexual abuse; having the correct opinion about and deciding against lascivious media; equality between the two sexes; and a healthy sexual life.

As in the sexuality education programme presented as part of this study, the programme should be divided into two parts: increasing sexual knowledge and enhancing sexual attitudes. The first part should be presented over 8 sessions during the first semester of the school year in the 9th grade and the second part over 7 sessions during the last semester of the school year.

The following recommendations refer to the content to be included in the sexuality education programme to increase sexual knowledge and to enhance positive sexual attitudes. It will be done according to various themes, and their importance will be motivated.

- Learners should understand the broader concept of sexuality, and become aware that they are unique and worthwhile human beings.

  They should get more clarity on the difference between sex and sexuality, as they often confuse these two concepts and see both mainly as sexual intercourse. The learners therefore should understand clearly that sexuality implies an integration of the biological, emotional, social, and intellectual aspects of human personality.

  Self-awareness is also important to develop self-management and a healthy self-esteem, as they are still developing self-esteem and values. A fairly positive self-awareness leads to favourable responses to new challenges, and towards increasing self-esteem and values. Therefore, when starting sexuality education, the content of sexuality and self-awareness should be covered first.

- To satisfy the adolescent's sexual curiosity about changes in his/her own body and in the opposite sex, the programme should include a section on the secondary sex characteristics and the anatomical and physiological function of the reproductive system (including nocturnal emission in males and menstruation in females) which is influenced by sex hormones.

Learners at this age are in a transitional period towards becoming adults. They experience remarkable biological changes, externally as well as internally. They should understand these changes and why they are more sensitive and emotionally unstable.

- Both male and female genital hygiene should be covered to prevent genital inflammations.

Learners do not realise that dirty genitals can cause inflammation of the genital organ. Especially, males are not aware that poor hygiene of the foreskin can cause genital inflammation in the female's vagina.

- To solve personal sexual problems related to sexual desire, topics such as masturbation and problems with breast size (for females) should be covered.

Learners usually feel that masturbating behaviour is shameful and they feel guilty about it. Males also want to know the side-effects of masturbating too often. Learners need to understand ways in which they can handle sexual desire.

Female adolescents worry about the size of their breasts, and it may be a factor of severe discomfort. They worry about their breasts being too big or too small in comparison with their friends' breasts.

- To prevent sexual problems like teen pregnancy and abortion, information should be included on topics such as the process of pregnancy, the effect of abortion, and the importance of contraception.

The rate of teen pregnancy is increasing significantly, and has negative effects for female adolescents such as fear, guilt, desperation, and dropping out of school. Unwanted pregnancies may result in induced abortion without knowledge of all the associated complications.

As the atmosphere in Korean homes is getting more liberal, accurate knowledge about the use of contraceptive methods should be emphasised.

- To be protected from sexual risks like STDs and HIV infection and to enhance positive attitude toward Aids victims, adolescents must be taught what STDs are (including HIV/Aids) and how they are transmitted.

  Learners have heard about STDs and HIV/Aids, but they do not know much about it, except that Aids cannot be cured. They are therefore unaware of the danger of contracting STDs. The learners also only have a very vague idea of how HIV is transmitted and therefore they avoid Aids patients in ignorance.

- To increase the learners' ability to protect themselves against sexual risks like sexual abuse, they should be knowledgeable on this topic.

  Sexual abuse is increasing as a social problem and in most instances the perpetrators are relatives of the victim. Learners are still young and in a vulnerable position. They find it difficult to say "no" to an older person, and to express themselves to adults. Therefore, the skills of self-expression and assertiveness, including how to say "yes" or "no" clearly, should be included in the sexuality education programme.

- Learners must be taught how to develop good relationships between males and females. Interpersonal skills, including persuasive and refusal skills, should also be included in the programme to maintain healthy relationships between the opposite sexes. Learners should understand the different sexual emotions of the two sexes in order to prevent hurting each other.

- To ensure positive sexual attitudes and behaviour, learners should develop self-responsibility and enhance sexual morals. Therefore the programme must address skills for making responsible decisions and the capability to judge when it comes to sexual matters.

Social norms have changed and learners are under pressure to make decisions about sexual behaviour by themselves. From the study findings, it could be observed that the development of responsible sexual behaviour could be stimulated in order to reduce sexual risks, enhance positive attitudes towards abstinence and the desire to stay a virgin until married. Young adolescents should know the sexual risks of their sexual behaviour.

- It could be meaningful to provide learners with reading matter during the presentation of the sexuality education programme. They could always refer back to this if they need to.

5.4.2.2 Presentation of the sexuality education programme

In this study the implementation of the sexuality education programme with the interactive presentation style resulted in more knowledge and positive attitudes, because learners understood and retained the information better.

- To prevent learners from getting bored in the sessions, the material should be presented on the learners' level of understanding, and sessions should not be longer than 45 minutes each.

- Textbook-like education of the past bores learners during lectures, and makes them feel excluded. The interactive presentation style should therefore be considered. The interactive presentation style combines lectures, discussions, role-plays and materials such as PowerPoint, video, and printed matter. Real-life scenarios or discussions encourage participation. Lectures should always involve a small-group discussion. The students should have the opportunity to discuss their real concerns, such as their responsibility for sexual behaviour and sexual moral issues. Role-play helps them to express their personal thoughts and to facilitate decision-making skills of individuals and groups.

- Learners' understanding of the issues should be evaluated at the end of each session by questions, discussion or a short quiz.

- Small-group discussions should be used, with learners facing one another in a circle. Loose chairs that can be moved around are ideal for this. These small-group discussions can provide more clarity on their own ideas by focusing on their own value system, and through identifying with others.

5.4.2.3 Atmosphere between educator and learners

This research indicates that it is important to establish comfortable interaction between the educator and the learners. The educator must maintain an open posture and act in a warm, understanding, caring, friendly and relaxed manner towards learners to ensure participation

and freedom to share during the presentation of the sexuality education programme. Unless there is a positive atmosphere, the learners will not open themselves to the sexuality education programme.

To ensure such a positive atmosphere between educator and learners, the following is recommended:

- The educator should establish a rapport with the learners to enable interaction with learners, which is important to achieve the goals of the sexuality education programme.
- The educator should maintain an open posture and act in a warm, friendly and relaxed manner towards the learners.
- The educator should make eye contact with the learners to make them feel unique and important.

The educator should have an open-minded approach towards learners. The learners will then be encouraged to express their sexual issues and to openly discuss problems, which will in turn enhance participation and make it possible to learn from each other. Hearing the attitudes and views of peers could influence learners and affect the mood in the class.

5.4.3 The sexuality education educator

This study showed that sexuality education by a dedicated sexuality educator helps learners to form a better understanding, gain more knowledge and improve their attitudes. The efficiency of the sexuality education programme depends a lot on the skills of the sexuality education educator. The following skills are recommended:

- The educator should be a well-informed person with accurate knowledge about sexual issues and sexuality.

- The educator should have a positive and objective personality with healthy sexual attitudes and a strong sexual value system based on the relevant cultural practices.

- The educator should be skilled in communication. Listening skills, open-mindedness and effective verbal and non-verbal skills are important.

- The educator should also have effective interpersonal skills and establish a rapport with the learners. A warm, friendly and understanding approach is important. The relationship should allow for honesty, trust, intimacy and confidentiality with learners.

- The educator should be skilled in principles of education. The following is thus recommended:
  - Voice must be clear and audible.
  - Using appropriate terms and expressions on the learners' level.
  - Using appropriate gestures when explaining.
  - Give opportunity for learners to ask questions and express their own experiences.
  - Learners' questions should be answered honestly and without hesitation.
  - Be comfortable with intimate discussions.
  - Assertiveness skills to be able to honestly express what the educator is feeling.
  - Limit authoritativeness and give friendly and kind advice.

5.4.4 General recommendations

Adolescents should receive continuous sexuality education through knowledgeable sources to ensure the obtaining of accurate information. The importance of proper and timely guidance can never be overemphasised, since sexuality is an evolving life process. Therefore, the following is recommended:

- The sexuality education programme should be well-planned and continuously evaluated and expanded if and where necessary, to increase the possibility of reducing the extent of sexual problems in adolescents.

- Schools should from time to time provide pamphlets on various sexuality topics to stimulate active debate and a continuous awareness.

- Schools should have a sexuality education programme as part of the regular programme. Teachers, and especially school nurses, who discuss sexuality matters with learners should receive comprehensive sexuality education training from sexuality education experts before being involved in any sexuality education programme.

- Individual appointments should also be available to learners if needed. Some learners prefer individual counselling about their sexual problems. These services should be available when needed to prevent adolescents' problems from developing into more serious problems.

- To ensure effective results of sexuality education for adolescents, the society at large should get involved with interactive cooperation between governments, leaders, schools, experts, parents and the media. It would help to ensure a higher success rate in the task

of ensuring that adolescents receive the proper sexuality education they need to better equip them for life.

- Parents' participation is very important in sexuality education. There is no doubt that sexuality education of the child is essentially a parent's task. Parents and their children should continuously talk about sexuality from a young age. It will be easier to talk about sexual issues and guide their children if it was done continuously, rather than starting suddenly when their children are adolescents. The parents are also the earliest sources of sexuality information to the child, through observation of parents' activities and attitudes. Therefore, parents should be an example of mutual trust and respect, and should be involved in sexuality education to help to guide their children.

5.4.5 Recommendations for further research in Korea

Possible further research on this topic includes the following:

- Adolescents who have left school but who are the same age as the adolescents in this study, should also receive the sexuality education programme in their work places in order to evaluate the effect of the sexuality education programme.

- The sexuality education programme can be repeated in schools in other cities in Korea, to evaluate whether the effect is the same.

- A survey focused more on the sexual practices of age specific behaviours.

5.5 FINAL CONCLUSIONS

The present study of the sexual knowledge and attitudes of adolescents in Youngdo-gu, Korea, revealed that adolescents had very little knowledge and displayed a slightly positive attitude towards sexuality before being exposed to sexuality education. However, the results clearly show a change in the situation, as adolescents indicate the programme as a great benefit to them in changing their sexual attitudes towards more positive sexual attitudes in accordance with the increased sexual knowledge, after participating in the sexuality education study. It also became clear that proper sexuality education is by far a better and more effective alternative than the approach of only handing out reading material which covers the same topics.

The compilation and presentation of the sexuality education programme with its comprehensive contents and interactive methods has therefore proven to be well-planned and effective in contributing towards an increase in adolescents' sexual knowledge, and in bringing about a positive change in sexual attitudes. It is thus safe to say that a comprehensive sexuality education programme is a valuable educational tool to help adolescents undergo positive sexual development and to maintain a healthy sexual lifestyle.

The objectives of the study were thus met and the hypothesis is accepted as correct, namely that a comprehensive sexuality educational programme for adolescents has a positive effect on their sexual attitudes and behaviour.

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Annexure A: REQUEST FOR PERMISSION FROM BUSAN METROPOLITAN CITY OF EDUCATION

Kang, Hyesook
Ph. D at North-West Univ. in SA
Institutor at Kosin Univ. in Busan
149-1, Dongsam-dong,
Youngdo-gu, Busan 606-701

HP) 051 - 985 – 9763
CP) 010 - 4845 – 5125

Busan City Office of Education
Yanjeong-dong, Busanjin-gu,
Busan 455-1

Dear Supervisor Y.H. Kim,

Request: I request to do research on sexuality education at Yeongseon and Shinseon Middle Schools in Youngdo-gu, Busan.

The title of my study is "The influence of sexuality education on the sexual knowledge and attitudes of adolescents in Busan, Korea". Yeongseon and Shinseon co-educated middle schools in Youngdo-gu of Busan will be the target schools for my study. The Yeongseon Middle School will be used the experimental group while the Shinseon Middle School will be as the control group.

Therefore, I request permission to conduct sexuality education to 9th graders at Yeongseon Middle School and to distribute reading matter on sexuality education to 9th graders at Shinseon Middle School. I also request permission to perform survey in the form of questionnaires at the two schools.

I will conduct the sexuality education programme as from March 2004. The sexuality education programme will stretch over 15 sessions. The reading matter will cover the same themes and will be similar in content to the sexuality education programme that will be presented. (Please refer to the enclosed sexuality education programme, reading matter and the questionnaire in the letter).

I am an instructor at the Department of at Kosin University in Busan, and a PhD student in the Department of Nursing at the North-West University in SA. My supervisors in South Africa are Professors Minrie Greeff and Daleen Koen. Their office phone numbers are 27-18-299-1829 and 27-18-299-1833.

If my request is approved, please provide me with a letter to this effect in English.
Thank you.

Yours faithfully.

H.S.Kang
2003. Nov. 4

Annexure B: PERMISSION OF BUSAN METROPOLITAN CITY OFFICE OF EDUCATION

Busan Mertopolitan City Office of Education
Busanjin-gu Yanjeong-dong 455-1, Busan Korea
Tel) 0982-51-8600-269 Fax) 0982-51-8600-269

Mrs. Hyesook Kang
Nursing Department at North-West University in SA,
Health Science Department at Kosin University in Korea
149-1, Dongsam-Dong.
Youngdo-gu, Busan 606-701

Dear Mrs. Hyesook Kang

CONDUCT OF SEXUALITY EDUCATION AT YEONGSEON AND SHINSEON MIDDLE SCHOOL

The contents and materials of your sexuality education program for middle school students that you sent in to us have been looked over and terminated a discussion. Your request to conduct the sexuality education at the Yeongseon and the Shinseon middle school for your study "The influence of sexuality education on the sexual knowledge and attitudes of adolescents in Busan, Korea" has been approved. The survey of questionnaire also has been approved.

INFORMATION: You need to have a permission of Seobu Education Office in Busan because the Yeongseon and Shinseon middle school are overseen by Seobu Education Office.

Yours faithfully,

Young Hee Kim
Supervisor
Busan Metropolitan City Office of Education(BMOE)

Annexure C: REQUEST FOR PERMISSION FROM SEOBU EDUCATION OFFICE IN BUSAN

Kang, Hyesook
Ph. D at North-West Univ. in SA
Institutor at Kosin Univ. in Busan
149-1, Dongsam-dong,
Youngdo-gu, Busan 606-701

HP) 051 - 985 – 9763
CP) 010 - 4845 – 5125

Busan Seobu Education Office
163, Seodaeshin-dong 3-ga,
Seo-gu, Busan

Dear Supervisor KS. Park,

Request: I request to do research on sexuality education at Yeongseon and Shinseon Middle Schools in Youngdo-gu, Busan.

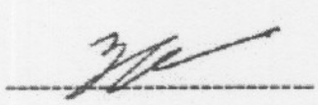
The title of my study is "The influence of sexuality education on the sexual knowledge and attitudes of adolescents in Busan, Korea". Yeongseon and Shinseon co-educated middle schools in Yeongdo-gu of Busan will be become target schools for my study. Learners from he Yeongseon Middle School will be the experimental group and learners from Shinseon Middle School will be used as the control group. Therefore, I request permission for conducting of sexuality education to 9th graders as target subjects at Yeongseon Middle School and for distributing reading matter on sexuality education to 9th graders at Shinseon Middle school. I also request permission to conduct surveys in the form of questionnaire at the two schools.

I will conduct the sexuality education programme as of March in 2004. The sexuality education programme will stretch over 15 sessions. Reading matter will cover the same themes and will be similar in content to the sexuality education programme that will be presented. (Please refer to enclose the sexuality education programme, reading matter and a questionnaire in a letter).

I am an instructor at the Department of at Kosin University in Busan, and a PhD student in the Department of Nursing at the North-West University in SA. My supervisors in South Africa are Professors Minrie Greeff and Daleen Koen. Their office phone numbers are 27-18-299-1829 and 27-18-299-1833.

I requested for my research to Busan Education Office, and have permission of it from there.
If my request will be approved, please write in English for the permission.

Thank you.
Yours faithfully.



H.S. Kang
2003. Nov. 20

Annexure D: PERMISSION OF SEOBU EDUCATION OFFICE IN BUSAN

Busan Seobu Education Office

http://www.seobu.pen.go.kr
163, Seodaesin-dong 3-ga, Seo-gu, Busan, Korea
Tel. 051-248-0311 Fax. 051-246-2853

Dec. 9, 2003

Mrs. Hyesook Kang
Nursing Department at North-West University in SA,
Health Science Department at Kosin University in Korea,
149-1, Dongsam-Dong,
Youngdo-Gu, Busan 606-701

Dear Mrs. Hyesook Kang

CONDUCT OF SEXUALITY EDUCATION AT YEONGSEON AND SHINSEON MIDDLE SCHOOL

The reading matter and contents of your sexuality education program and questionnaire that you sent in to me have been looked over and terminated a discussion with a head of secondary educational section. Your request to conduct the sexuality education to 9th graders at the Yeongseon middle school and distribute reading matters of sexuality education to 9th graders at the Shinseon middle school for your study "The influence of sexuality education on the sexual knowledge and attitudes of adolescents in Busan, Korea" has been approved. The survey of questionnaire at the Yeongseon and Shinseon middle school also has been approved.

ATTENTION: you need to have a permission of principal of Yeongseon and Shinseon middle school for your study. You also need to discuss with a teacher who is in charge of a sexuality education about your sexuality educational period and contents at the both middle schools.

Yours faithfully,

박경산

K.S. Park
The supervisor in schoollife guidence
Seobu Education office in Busan

Annexure E: PERMISSION OF YEONGSEON MIDDLE SCHOOL

Yeongseon middle school
http://www.yeongseon.ms.kr

Address: # 3 - 8 Shinseon-dong Youngdo-gu, Busan, KOREA
Telephone: 82-051-413-5607
Fax: 82-051-418-7317

Dec. 19. 2003

Mrs. Hyesook Kang
North-West University in SA.
Health Department at Kosin University
149-1, Dongsam- Dong,
Youngdo-Gu, Busan 606-701

Dear Mrs. Hyesook Kang

RESEARCH AT YEONGSEON MIDDLE SCHOOL:

Your request to conduct research, sexuality education program for the ninth graders during the spring semester, has been approved. The conduct of sexuality education for the ninth graders should be started in March, 2004 because spring semester will be started in March 2, 2004. We will let you know the time schedule for your sexuality education program at the end of February in 2004.

Yours faithfully,

Y. H. Park
School nurse

H. S. Kim
Home-management

J. K. Park
Vice-principal

M. S. Roh
Principal

Annexure F: PERMISSION OF SHINSEON MIDDLE SCHOOL

신 선 중 학 교

http://www.shinseon.ms.kr

Adress 110-1 shinseon-3Dong Youngdo-Gu Busan 606-053 Feb 10 2004

Telephone 600-1520 Fax 600-1514

Mrs. Hyesook Kang

North-West Univerity in SA

Health Department at Kosin University

149-1. Dongsam-Dong.

Youngdo-Gu. Busan 606-701

Dear Mrs. Hyesook Kang

RESEARCH AT SHINSEON MIDDLE SCHOOL

Your request to conduct research has been approved. The survey of questionnaire for the ninth graders should be started in March. 2004 because beginning of spring semester at school will be in March 2. 2004.

Yours faithfully.

MYUNGSOON JIN

Vice principal

BOOGI KIM

principal

Annexure G: THE QUESTIONNAIRE ON SEXUAL KNOWLEDGE AND ATTITUDES OF LEARNERS IN BUSAN, KOREA

Sexual Knowledge and Attitudes of learners

The purpose of this questionnaire is to investigate your knowledge and attitudes of sexuality. The questionnaire will be completed before and after the sexuality education. Your participation will ensure the future effectiveness of the sexuality education programme. Please answer all the questions honestly. Your identity will be kept anonymous. Thank you very much for your cooperation.

2004.

The questions will be divided into 5 sections as follows:

Section A : Biographical questions

Section B : Relationships with family and opposite sex

Section C : Knowledge about sexuality

Section D : Experiences related to sexuality

Section E : Attitudes about sexuality

SECTION A: BIOGRAPHICAL DATA

THE FOLLOWING QUESTIONS ARE BIOGRAPHICAL IN NATURE.
PLEASE INDICATE YOUR ANSWER WITH '√' IN THE APPROPRIATE BOX.

1. Sex	Male		1
	Female		2
2. Age	15 years		1
	16 years		2
	Other (Specify)		4
3. Religion?	None		1
	Christian		2
	Catholic		3
	Buddhism		4
	Confucianism		5
	Other (Specify)		6
4. Do you have a room of your own?	Yes		1
	No		2
4.1 If the answer is "No", how many people are sharing your room excluding you?	Number:		1
5. Size of your family (including you)?	One person		1
	Two people		2
	Three people		3
	Four people		4
	Five people		5
	Over six people		6
6. Whom do you live with?	Both parents		1
	Father only		2
	Mother only		3
	Grandparent(s)		4
	Brother		5
	Sister		6
	Alone		7
	Other (Specify)		8

SECTION B: RELATIONSHIPS WITH FAMILY

B1. THE FOLLOWING QUESTIONS FOCUS ON RELATIONSHIPS WITH YOUR FAMILY. PLEASE INDICATE YOUR ANSWER WITH '√' IN THE APPROPRIATE BOX.

1.1 How would you describe the communication between you and your parents?	Very poor		1
	Poor		2
	Average		3
	Good		4
	Very good		5
1.2 How would you describe the atmosphere in your home?	Conservative & Warm		1
	Conservative & Cold		2
	Liberal & Warm		3
	Liberal & Cold		4
	Other (Specify)		5
1.3 How would you describe the financial situation in your home?	Very poor		1
	Poor		2
	Average		3
	Rich		4
	Very rich		5
1.4 Marital state of your parents?	Live together		1
	Live separately		2
	Divorced		3
	Widow / widower		4
	Other (Specify)		5

1.5 Educational level of your parents	Father		Mother	
No schooling		1		1
Elementary		2		2
Middle school		3		3
High school		4		4
University		5		5
Over university		6		6

1.6 Have you received sexuality education from your parents?	Yes		1
	No		2
1.7 If you answered "Yes" to 1.6: What subjects did you talk about?	Specify:		

B2. **THE FOLLOWING QUESTIONS DEAL WITH YOUR SEXUAL BEHAVIOUR. PLEASE ANSWER THE FOLLOWING QUESTIONS HONESTLY.**				
		Yes	1	No	2
2.1 Do you have (or have you had) a close friend(s) of the opposite sex?				
	If you answered "Yes":			
	2.1.1 Number of friends			
	2.1.2 Relationship period (the longest period)			
2.2 Will you allow the following behaviour when you are dating your boyfriend or girlfriend?	2.2.1 Conversation			
	2.2.2 Hand-holding			
	2.2.3 Put arms around shoulders			
	2.2.4 Embracing			
	2.2.5 Kissing			
	2.2.6 Petting			
	2.2.7 Coitus interruptus			
	2.2.8 Full sexual intercourse			
	2.3.1 Hand-holding			
	2.3.2 Put arms around shoulders			
	2.3.3 Kissing			
	2.3.4 Embracing			
	2.3.5 Petting			
	2.3.6 Coitus interruptus			
	2.3.7 Full sexual intercourse			
	2.3.8 STD infection			

	2.3.9 Pregnancy (self or partner)		
	2.3.10 Abortion (self or partner)		

2.4 Have you suffered any of the mentioned experiences?		Yes	1	N0	2
	Other (Specify)				

2.5 Describe your degree of interest in sexually related matters.	None		1
	Very low		2
	Low		3
	Average		4
	High		5

		None	1	Little	2	Average	3	High	4
2.6 To what extent do you get sexual information from the following sources?	2.6.1 Friend/s								
	2.6.2 Senior/s								
	2.6.3 Teacher/s								
	2.6.4 Father								
	2.6.5 Mother								
	2.6.6 Brother and/or Sister								
	2.6.7 TV								
	2.6.8 Internet								
	2.6.9 Magazines								
	2.6.10 Books								

SECTION C: KNOWLEDGE ABOUT SEXUALITY

THE FOLLOWING QUESTIONS ARE RELATED TO YOUR KNOWLEDGE ABOUT SEXUALITY. PLEASE INDICATE THE APPROPRIATE BLOCK WITH '√'.

C1. The following statements are about sexuality and sex. Indicate whether they are true or false.

		True	False	Don't know
1.1	Sexuality implies sexual pleasure.	√		
1.2	Sexuality implies kissing.	√		
1.3	Sexuality implies self-esteem.	√		
1.4	Sexuality implies human personality.	√		
1.5	Sexuality implies masculinity and femininity.	√		
1.6	Sex implies love and intimacy.		√	
1.7	Sex implies jealousy.		√	
1.8	Sex implies biological male and female.	√		
1.9	Sex implies sexual intercourse.	√		
1.10	Sex implies sexual attraction.	√		

C2. The following phenomena are associated with puberty in both males and females due to hormonal effects. Indicate whether they are true or false.

		True	False	Don't know
2.1	Sex hormones accelerate uneven body development in both male and female.	√		
2.2	Sex hormones cause the development of pimples in both male and female.	√		
2.3	Increased activity of sweat glands is only caused in males.		√	
2.4	Enlargement of both the testes and scrotum occurs in males.	√		
2.5	Enlargement of the penis occurs in males.	√		
2.6	Increase in sperm production occurs in males.	√		
2.7	Development of breasts only occurs in females.		√	
2.8	Broadening of the hips only occurs in females.	√		
2.9	Beginning of first menstruation (menarche) occurs in females.	√		
2.10	Increase in the size of ovaries occurs in females.	√		
2.11	Increase in ovum production occurs in females.		√	
2.12	Sex hormones cause an unstable emotional state during puberty.	√		

C3. The following statements are concerned with physiological phenomena of the reproductive system in males and females. Indicate whether they are true or false.

		True	False	Don't know
3.1	Nocturnal emission is urinating when a man is sleeping.		√	
3.2	Nocturnal emission is full physical maturation.	√		
3.3	Ejaculated semen does not contain sperm.		√	
3.4	Sperm can live an average of 3 days in the female reproductive system after ejaculation.	√		
3.5	Menstruation is a normal symptom that a woman experiences once every month.	√		
3.6	Menstruation proves that you have become a woman.	√		
3.7	Ovulation occurs every month from two ovaries in females		√	
3.8	Ovulation occurs an average 14 days before beginning menstruation.	√		
3.9	The length of the cycle and the intervals between ovulation are not the same for each person.	√		
3.10	An ovum can live an average of 2 days after ovulation.	√		

C4. The following statements are about genital health concerns in males and females. Indicate whether the statements are true or false.

		True	False	Don't know
4.1	A male's penis can be inflamed if he masturbates with dirty hands.	√		
4.2	A male's dirty penis can inflame a female's vagina.	√		
4.3	It is good for hygienic purposes that males are circumcised.	√		
4.4	Wiping the female's genitals from back to front after defecation can cause vaginal infections.	√		
4.5	Poor hygiene of genitals in females can cause vaginal infections.	√		
4.6	Nylon underwear can cause vaginal infections because of heat and retained moisture.	√		

C5 The following statements are about sexual desire. Indicate whether they are true or false.

		True	False	Don't know
5.1	Sexual desire can be caused by sex hormones.	√		

5.2 Male hormones can lead to their sexual drive being stronger than that of females.	√		
5.3 Sexual desire is as natural as the desire to eat.	√		
5.4 Sexual desire can be controlled by the brain.	√		
5.5 We are able to control sexual desire ourselves.	√		
5.6 Increased sperm production causes the expression of sexual desire.	√		

C6. The following statements are about masturbation. Indicate whether they are true or false.

	True	False	Don't know
6.1. Masturbation is self-stimulation of one's own genitals.	√		
6.2 Masturbation is harmful.		√	
6.3 Masturbation is safe sex.	√		
6.4 Females should not masturbate.		√	
6.5 Teen masturbation is a natural sexual behaviour.	√		
6.6 The reason for masturbating is an increase in sex hormones.	√		
6.7 If you masturbate too often, it can lead to problematic sexual intercourse with the opposite sex.		√	

C7. The following statements are related to pregnancy. Which of the following statements do you consider as true or false?

	True	False	Don't know
7.1 A girl cannot become pregnant the first time she has intercourse.		√	
7.2 Fertilisation of the sperm and ovum occurs in the fallopian tubes.	√		
7.3 Pregnancy occurs when a man and woman sleep together in a room.		√	
7.4 Pregnancy can occur when the man withdraws his penis before ejaculation	√		
7.5 Pregnancy is likely to occur more or less 14 -19 days after the menstrual period.	√		
7.6 Teen pregnancy may cause cervix cancer.	√		
7.7 One of the symptoms of pregnancy is enlargement of the breasts.	√		
7.8 One of the symptoms of pregnancy is the absence of the menstrual period.	√		

7.9	One of the symptoms of pregnancy is nausea/vomiting.	√		
7.10	If a female takes medicine wrongly when she is in early pregnancy (2-3 months), the foetus can be deformed.	√		

C8. The following statements are about induced abortion. Which of the following statements do you consider to be true or false?

		True	False	Don't know
8.1	Induced abortion can lead to internal infection.	√		
8.2	Induced abortion can damage the cervix and uterus.	√		
8.3	Induced abortion can lead to internal haemorrhage.	√		
8.4	Induced abortion can lead to internal injury.	√		
8.5	Pregnancy after induced abortion can lead to ectopic pregnancy .	√		
8.6	Induced abortion can't cause any physical damage.		√	
8.7	The rate of abortion-related deaths is higher in earlier pregnancy than later.	√		
8.8	Induced abortion is legal.		√	

C9. The following statements are about contraception. Indicate whether they are true or false.

		True	False	Don't know
9.1	Contraception refers to the prevention of pregnancy.	√		
9.2	Most contraceptive methods are not perfectly effective.	√		
9.3	If you forget to take a birth control pill for even any one day, you may become pregnant.	√		
9.4	The emergency pill can prevent pregnancy if you take a pill in 72 hours after having unprotected intercourse.	√		
9.5	Norplant is a good contraceptive method.	√		
9.6	The rhythm method as a means of contraception has a high failure rate .	√		
9.7	Penis withdrawal is an effective method of contraception.		√	
9.8	Condom use is effective for the prevention of pregnancy.	√		
9.9	Condom use is effective for the prevention against STD/HIV infections.	√		
9.10	Spermicide kills sperms.	√		

C10. The following statements are about sexually transmitted diseases (STDs). Which do you consider as true or false?

		True	False	Don't know
10.1	STDs can be caused by sexual intercourse.	√		
10.2	STDs can't cause sterility.		√	
10.3	You are cured from an STD when the symptoms are gone.		√	
10.4	Once you had an STD you can't get it again.		√	
10.5	If you are strong and healthy, you can't get STDs.		√	
10.6	Both partners should be treated after being infected with an STD.	√		
10.7	Syphilis can infect the foetus.	√		
10.8	Syphilis is known to cause insanity and death if untreated.	√		
10.8	Gonorrhoea is 10 times more common than syphilis.	√		
10.10	Gonorrhoea is often difficult to detect in women.	√		
10.11	Genital herpes is hard to cure perfectly.	√		

C11. The following statements are about HIV and AIDS. Which do you consider as true or false?

		True	False	Don't Know
11.1	HIV attacks the human immune system.	√		
11.2	HIV can transmit to the foetus when the mother is infected.	√		
11.3	HIV can be passed on to the baby in breast milk when the mother is infected by HIV.	√		
11.4	HIV infection can be transmitted by toilet seats.		√	
11.5	HIV can be transmitted by the use of the same swimming pool as a person who has AIDS.		√	
11.6	HIV can spread through the coughing of an HIV infected person.	√		
11.7	A person who is infected by HIV can be symptom free for many years.	√		
11.8	AIDS can be contracted by receiving HIV infected blood.	√		
11.9	AIDS can be contracted by having sexual intercourse with an infected person.	√		
11.10	AIDS can be contracted by using a used hypodermic syringe.	√		

SECTION D: EXPERIENCES RELATED TO SEXUALITY

THE FOLLOWING QUESTIONS ARE ABOUT YOUR EXPERIENCES RELATED TO SEXUALITY. PLEASE CHECK THE APPROPRIATE BOX WITH '√'.

D1. The following questions are about your first experience of nocturnal emission or menstruation.				
		Yes	No	
1.1 Boy: I have experienced nocturnal emission or Girl: I have started menstruating.				1
	If you answered "Yes": Your age when you 1st experienced it			2
1.2 Have you ever masturbated before?				1
	If you answered "Yes": Your age when you 1st experienced it			2

D2. The following questions are about sexual problems.			
2.1 Are you currently experiencing any sexual problems?	Yes		1
	No		2
2.2 If you answered 'Yes' to question 2.1: What do your sexual problems concern? (mark all those that apply to you)	Breasts		1
	Genital organ		2
	Sexual desire		3
	Masturbation		4
	Petting		5
	Sexual intercourse		6
	STD		7
	Pregnancy & Abortion		8
	Other:		9

2.3 Whom would you like to consult with if you have sexual problems? (choose the best person that you want to consult)	Keep to self		1
	Friend/s		2
	Father		3
	Mother		4
	Brother and/or Sister		5
	Senior student		6
	Teacher		7
	Counsellor		8
	Others (Specify):		9
2.4 I can discuss my sexual problems with my parents.	Yes		1
	No		2

D3. The following questions are about sexual experiences. Please answer the questions honestly.				
		Yes	No	
3.1 Have you ever had sexual intercourse?				1
	If you answered "Yes": Your age when you 1st experienced it			2
		Yes	No	
3.1.1 If you answered "No" to question 3.1, what is your major reasons for not having had sexual intercourse up to date or in the present?	Afraid of pregnancy			1
	Afraid of STDs			2
	Religious belief			3
	Lack of opportunity			4
	Keeping virginity			5
	Other (Specify):			6
3.1.2 If you answered "Yes" to question 3.1, what was the reason for having sexual intercourse?	Curiosity			1
	Sexual attraction			2
	Fear of losing a partner			3
	Peer group pressure			4

	Loneliness			5
	Raped			6
	Money			7
	Others:			8
3.1.3 If you answered "Yes" to Q. 3.1, do you use contraceptives during sexual intercourse?				
3.1.3.1 If you answered "yes" to Q. 3.1.3, which method did you use?				
3.1.3.2 If "No", what was the reason for not using a contraceptive method?	Lack knowledge about contraception			1
	Unplanned sexual intercourse			2
	Partner objected			3
	During a safe period			4
	Against my beliefs/religions			5
	Others (Specify):			6
3.1.3.3 When do you think is the right time to start having sexual intercourse?	After Marriage			1
	Before Marriage			2
	If you answered 'before marriage', what age do you think is the right time?	Age:		3

D4. The following questions are about sexuality education. Please answer the questions according to your current experience.

4.1 Have you ever had any sexuality education in school?	Yes		1
	No		2
4.2 If you answered "Yes" to Q. 4.1, How many times have you had sexuality education at school?	None		1
	1-2 times		2
	3-4 times		3
	5-6 times		4

	7-8 times		5
	Over 9 times		6
4.3 How much sexuality education have you received at school until now?	1-2 hours		1
	3-4 hours		2
	5-6 hours		3
	7-8 hours		4
	One semester		5
	One year		6
4.4 Who taught the sexuality education at school?	Home management teacher		1
	Physical exercise teacher		2
	School nurse		3
	Sexuality educator		4
	Others:		5
4.5 What was the content of the sexuality education? (Mark all those that were included)	Reproductive anatomy & function		1
	Nocturnal emission		2
	Masturbation		3
	Pregnancy & delivery		4
	Abortion		5
	Contraceptives		6
	STDs & HIV/AIDS		7
	Sexual desire & control method		8
	Love and sex		9
	Relationship with opposite sex		10
	Sexual risks		11
	Others (Specify):		

4.6 How much did the sexuality education help you to prevent and protect yourself from sexual risks?	None		1
	Very little		2
	Little		3
	To some extent		4
	A lot		5
4.7 What would you like covered in a sexuality education programme? (choose all those you want included)	Reproductive anatomy & function		1
	Nocturnal emission		2
	Masturbation		3
	Pregnancy & delivery		4
	Abortion		5
	Contraceptives		6
	STDs & HIV/AIDS		7
	Sexual desire & control method		8
	Love and sex		9
	Relationship with opposite sex		10
	Sexual risks		11
	Others (Specify):		
4.8. Sexuality education is a high priority. What do you think is the reason for putting so much emphasis on sexuality education for adolescents? (check all those you think)	To help satisfy sexual curiosity		1
	To help solve sexual problems		2
	To understand the opposite sex		3
	To gain the correct sexual knowledge		4
	To clarify own sexual attitudes and values		5
	To create awareness of own rights		6
	To prevent and protect from sexual risks		7
	To prevent HIV and STDs		8
	To prevent date-rape		9
	To prevent unwanted pregnancy		10

SECTION E: ATTITUDES ABOUT SEXUALITY

Please rate each statement according to how much you agree or disagree with the following statements.

1- if you Strongly disagree with the statement.

2- if Disagree to some extent with the statement.

3- if you Neither agree nor disagree with the statement.

4- if you Agree to some extent with the statement.

5- if you Strongly agree with the statement.

PLEASE INDICATE YOUR RESPONSE WITH A '√' IN THE APPROPRIATE BOX.

PLEASE DON'T LEAVE ANY QUESTION UNANSWERED

E1. To what extent do you agree with the following statements about sexuality and sex?

	Strongly disagree	Dis-agree	Neither agree nor disagree	Agree	Strongly agree
1.1 I feel sexuality is important in my life.	1	2	3	4	5
Motivation:					
1.2 I feel that sexuality should be an enjoyable part of human life.	1	2	3	4	5
Motivation:					
1.3 I feel embarrassed whenever talking about sex.	1	2	3	4	5
Motivation:					
1.4 I feel sex is important in my life.	1	2	3	4	5
Motivation:					

E2. To what extent do you agree with the following statements about sexual desire?

	Strongly disagree	Dis-agree	Neither agree nor disagree	Agree	Strongly agree
2.1 I like having sexual desires.	1	2	3	4	5
Motivation:					
2.2 I think I must control my sexual desires.	1	2	3	4	5
Motivation:					
2.3 I don't like to see and read lascivious matters because it leads to sexual desire.	1	2	3	4	5
Motivation:					
2.4 I like to exercise (sports) to relieve my sexual desire.	1	2	3	4	5
Motivation:					

E3. To what extent do you agree with the following statements about masturbation?

	Strongly disagree	Dis-agree	Neither agree nor disagree	Agree	Strongly agree
3.1 I don't like to masturbate.	1	2	3	4	5
Motivation:					
3.2 I feel masturbation is shameful.	1	2	3	4	5
Motivation:					
3.3 I feel guilty whenever I masturbate.	1	2	3	4	5
Motivation:					
3.4 I think females should not masturbate.	1	2	3	4	5
Motivation:					

3.5 I masturbate when I am reading lascivious books or watching sex scenes.	1	2	3	4	5
Motivation:					
3.6 I think masturbation is a good method to get relief from sexual desire.	1	2	3	4	5
Motivation:					

E4. To what extent do you agree with the following statements about premarital sex (sexual intercourse)?

	Strongly disagree	Dis-agree	Neither agree nor disagree	Agree	Strongly Agree
4.1 I think that premarital sexual intercourse is not good.	1	2	3	4	5
Motivation:					
4.2 I don't want to have sex without love.	1	2	3	4	5
Motivation:					
4.3 I feel it is all right for two people to have sex before marriage if they are in love.	1	2	3	4	5
Motivation:					
4.4 I think sex is supposed to come from true love.	1	2	3	4	5
Motivation:					
4.5 I think sex is a kind of game.	1	2	3	4	5
Motivation:					
4.6 I think sex with an older person is normal common sense behaviour.	1	2	3	4	5
Motivation:					

4.7 I only consider sex with an older person if I need money.	1	2	3	4	5
Motivation:					
4.8 I intend to have sex whenever I have a chance.	1	2	3	4	5
Motivation:					
4.9 I think that it is OK for males to have sexual intercourse before marriage.	1	2	3	4	5
Motivation:					
4.10 I think that it is OK for females to have sexual intercourse before marriage.	1	2	3	4	5
Motivation:					
4.11 I will feel guilty if I have sexual intercourse before marriage.	1	2	3	4	5
Motivation:					

E5. To what extent do you agree with the following statements about abstinence?

	Strongly disagree	Dis-Agree	Neither agree nor disagree	Agree	Strongly Agree
5.1 I think a woman should be a virgin until she marries.	1	2	3	4	5
Motivation:					
5.2 I will try to keep my virginity until I am married.	1	2	3	4	5
Motivation:					
5.3 I will practice abstinence because of fear of becoming pregnant.	1	2	3	4	5
Motivation:					
5.4 I will practice abstinence because of fear of contracting an STD/AIDS.	1	2	3	4	5

Motivation:					
5.5 I will abstain from sex because of my religious belief.	1	2	3	4	5
Motivation:					
5.6 I can say "NO" to my boyfriend/girlfriend when asked to have sexual intercourse.	1	2	3	4	5
Motivation:					

E6. If you become pregnant or your girlfriend becomes pregnant with your child, what would you decide to do?

	Strongly disagree	Dis-agree	Neither agree nor disagree	Agree	Strongly Agree
6.1 I will support an abortion.	1	2	3	4	5
Motivation:					
6.2 I will marry him/her.	1	2	3	4	5
Motivation:					
6.3. I will leave him/her.	1	2	3	4	5
Motivation:					
6.4 I will tell my mother and/or father.	1	2	3	4	5
Motivation:					
6.5 I will support my partner to keep the baby.	1	2	3	4	5
Motivation:					

E7. To what extent do you agree with the following statements about induced abortion?					
	Strongly disagree	Dis-Agree	Neither agree nor disagree	Agree	Strongly Agree
7.1 I feel induced abortion is murder.	1	2	3	4	5
Motivation:					
7.2 I would feel guilty if I had an induced abortion or asked my girlfriend to undergo it.	1	2	3	4	5
Motivation:					
7.3. I would feel anger towards myself if I had an induced abortion or if I asked my girlfriend to undergo it.	1	2	3	4	5
Motivation:					
7.4 I will look for a skilled doctor when induced abortion is needed.	1	2	3	4	5
Motivation:					
7.5 I think induced abortion should never be allowed.	1	2	3	4	5
Motivation:					
7.6 I think it will be necessary to visit a psychologist/social worker after having an induced abortion	1	2	3	4	5
Motivation:					
7.7 I think a girl should take good care of herself after having an induced abortion because it is the same as giving birth.	1	2	3	4	5

E8. To what extent do you agree with the following statements about contraception?					
	Strongly disagree	Dis-agree	Neither agree nor disagree	Agree	Strongly agree
8.1 I cannot ask my partner to use contraceptives.	1	2	3	4	5

Motivation:					
8.2 I think that using a contraceptive makes you feel guilty.	1	2	3	4	5
Motivation:					
8.3 I think only females must make use of the sterilisation method when contraception is needed permanently.	1	2	3	4	5
Motivation:					
8.4 I like to use a condom for contraception.	1	2	3	4	5
Motivation:					
8.5 I don't like to have sex without using some form of contraception.	1	2	3	4	5
Motivation:					
8.6 I think contraception is the male's responsibility.	1	2	3	4	5
Motivation:					
8.7 I think contraception is the female's responsibility.	1	2	3	4	5
Motivation:					
8.8 I think contraception is not as important as some people say.	1	2	3	4	5
Motivation:					

E9. To what extent do you agree with the following statements about STDs?

	Strongly Disagree	Dis-agree	Neither agree nor disagree	Agree	Strongly Agree
9.1 I don't like to have sex with anyone because I am afraid of an STD infection.	1	2	3	4	5
Motivation:					

9.2 I don't like sex with an older person because of the increased risk of contracting an STD.	1	2	3	4	5
Motivation:					
9.3 I will visit a doctor when I think I am infected with any kinds of STD.	1	2	3	4	5
Motivation:					
9.4 I will visit a doctor when I think I am infected with gonorrhoea.	1	2	3	4	5
Motivation:					
9.5 I will visit a doctor when I think I am infected with Syphilis.	1	2	3	4	5
Motivation:					
9.6 I will visit a doctor when I think I am infected with genital herpes.	1	2	3	4	5
Motivation:					
9.7 I will use a condom to prevent an STD infection.	1	2	3	4	5
Motivation:					

E10. To what extent do you agree with the following statements about HIV/AIDS?

	Strongly disagree	Dis-agree	Neither agree nor disagree	Agree	Strongly Agree
10.1 I don't like to share a house with someone who is infected with HIV/AIDS.	1	2	3	4	5
Motivation:					
10.2 I don't like to use the same toilet as a person with HIV/AIDS.	1	2	3	4	5
Motivation:					
10.3 I don't like to hug a person with HIV/AIDS.	1	2	3	4	5

Motivation:					
10.4 I don't like to swim in the same swimming pool as people with HIV/AIDS.	1	2	3	4	5
Motivation:					
10.5 I don't like to shake hands with someone who is infected with HIV/AIDS.	1	2	3	4	5
Motivation:					
10.6 I don't like to share food with a person who has HIV/AIDS.	1	2	3	4	5
Motivation:					
10.7 I don't like to take a course of any educational activities with someone who is infected with HIV/AIDS.	1	2	3	4	5
Motivation:					
10.8 I don't like to kiss a person with HIV/AIDS.	1	2	3	4	5
Motivation:					
10.9 I don't like to share blades with someone who is infected with HIV/AIDS.	1	2	3	4	5
Motivation:					
10.10 I don't like to share the telephone with someone who is infected with HIV/AIDS.	1	2	3	4	5
Motivation:					
10.11 I will reach the age of 25 without being infected with HIV.	1	2	3	4	5
Motivation:					

E11. To what extent do you agree with the following statements about yourself?					
	Strongly disagree	Dis-agree	Neither agree nor disagree	Agree	Strongly agree
11.1 I feel good about my body.	1	2	3	4	5
Motivation:					
11.2 I am happy with my life.	1	2	3	4	5
Motivation:					
11.3 I have good relationships with my friends.	1	2	3	4	5
Motivation:					
11.4 I am proud of myself.	1	2	3	4	5
Motivation:					
11.5 I generally trust other people easily.	1	2	3	4	5
Motivation:					
11.6 I think I am an optimistic person.	1	2	3	4	5
Motivation:					
11.7 I easily get angry with other people.	1	2	3	4	5
Motivation:					
11.8 I am afraid of relationships with the opposite sex.	1	2	3	4	5
Motivation:					
11.9 I want to become like my mother or father (same sex parent).	1	2	3	4	5
Motivation:					
11.10 I always think of the other person first when I'm dating.	1	2	3	4	5

Motivation:					
11.11 When I am dating, I like to go to secluded places.	1	2	3	4	5
Motivation:					
11.12 I like to kiss my girlfriend/boyfriend in public places.	1	2	3	4	5
Motivation:					

E12. To what extent do you agree with following statements about sexuality education?					
	Strongly disagree	Dis-agree	Neither agree nor disagree	Agree	Strongly agree
12.1 I like to talk about sexual issues with my parents.	1	2	3	4	5
Motivation:					
12.2 I feel my parents are appropriate sexuality educators.	1	2	3	4	5
Motivation:					
12.3 I like to receive sexuality education in school.	1	2	3	4	5
Motivation:					
12.4 I feel sexuality education is helpful to me.	1	2	3	4	5
Motivation:					
12.5 I am satisfied with the sexuality education that I have received up to date.	1	2	3	4	5
Motivation:					

Thank you very much for your participation

Annexure H:

MOTIVATION ON SECTION E OF THE QUESTIONNAIRE

Motivation (Section E in questionnaire)

E1-1 I feel sexuality is important in my life.

1 - I agree because sexuality is expressed in my life.

2 - I agree because sexuality implies all emotions.

3 - I agree because it forms a part of my personality.

4 - I agree because sexuality is a part of my life.

5 - I agree because in my life sexuality gives me pleasure.

E1-2 Sexuality should be an enjoyable part of human life.

1 - I agree because sexuality has let me express love in my life.

2 - I agree because sexuality is the basis of human life.

3 - I agree because sexuality gives me mental satisfaction.

4 - I agree because sexuality implies all emotional aspects.

E1-3 I feel embarrassed whenever talking about sex.

1 - I disagree because being interested in and talking about sex is natural.

2 - I disagree because sex is beautiful.

3 - I agree because I have always known that sex is dirty.

E1-4 I feel sex is important in my life.

1 - I agree because sex is an instinct of a human being.

2 - I agree because sex is natural behaviour.

3 - I agree because if a person does not have sex, there will be no descendents.

4 - I agree because sex is accomplished when people love each other.

5 - I agree because I heard that people who have unsatisfactory sex lives have a higher rate of divorce.

6 - I disagree because sex is dirty behaviour.

E2-1 I like to have sexual desires

1 - I agree because it is natural due to sex hormones.

2 - I agree because everybody feels sexual desires.

E2-2 I think I must control my sexual desires.

1 - I agree because a person is able to control sexual desires.

2 - I agree because if people cannot control it, they are animals.

3 - I agree because if people cannot control sexual desires, they find it hard to lead a normal lifestyle. As a result, it can damage their lives.

4 - I agree that if people cannot control sexual desires, it leads to obstacles in their social lives because it causes damage to other persons.

5 - I agree because there is nobody to satisfy my sexual desire.

E2-3 I don't like to see and read lascivious matters because it provokes sexual desire.

1 - Neither agree nor disagree: Sometimes I want to see it, but sometimes not.

2 - I agree because the lascivious matters make me sick because they are commercialised. Therefore I don't like to see it.

3 - I agree because when I see it, it stimulates my sexual behaviour or sexual desire.

E2-4 I like to exercise to relieve my sexual desire.

1 - According to my experience, physical exercise has really helped to relieve sexual desire.

2 - I agree because physical exercise is tiring and makes me sleepy.

3 - I agree because physical exercise is good for mental concentration and it therefore makes the sexual desire disappear.

4 - I disagree because favourite hobbies such as listening to music, reading books, drawing etc. are better than physical exercise.

5 - I agree because I learned it is so.

E3-1 I don't like to masturbate.

1 - I disagree because masturbation is not harmful if it is performed too often.

2 - I disagree because it is a sexual outlet for adolescents.

3 - I disagree because masturbation relieves sexual desire without hurting anybody.

4 - I disagree because masturbation leads to a feeling of satisfaction.

5 - I agree because masturbation is a behaviour that results in an inability to control yourself.

E3-2 I feel masturbation is shameful.

1 - I disagree because it is natural behaviour during adolescence.

2 - I disagree because masturbation relieves sexual desire.

3 - I agree because people may think I'm abnormal.

E3-3 I feel guilty whenever I masturbate.

1 - I disagree because anybody can practice masturbation.

2 - I agree because masturbation makes my body weaker.

3 - I disagree because it is a method of relieving sexual desire without hurting anybody.

E3-4 I think females should not masturbate.

1 - I disagree because females also have the same physiological function as males because of sex hormones.

2 - I disagree because masturbation is natural behaviour, through sex hormones that cause sexual desire.

3 - I agree because I heard it is so.

E3-5 I masturbate when I am reading lascivious books or watching sex scenes.

1 - I disagree because masturbation can be controlled by oneself.

2 - Neither agree nor disagree: I don't know because I have never masturbated.

3 - I disagree because I don't like any kind of lascivious material.

E3-6 Masturbation is a good method of relieving sexual desire.

1 - I disagree because too much masturbation can be mentally and physically harmful.

2 - I disagree because there are other and better methods to relieve sexual desire, such as hobbies.

3 - Neither agree nor disagree: I don't know because I have never masturbated.

E4-1 Premarital sexual intercourse is not good.

1 - Neither agree nor disagree: It depends on the situation.

2 - I agree, because it can cause pregnancy and it can make people too attached to each other.

3 - I agree, because unwanted pregnancy leads to abortion.

4 - I agree, because a person can change his/her mind and start a new relationship with someone else.

5 - I agree, because a premarital lover is not legally a partner.

6 - I agree because I feel sorry for my marriage partner if I am not a virgin.

E4-2 I don't want to have sex without love.

1 - I agree because love combines the minds of two people.

2 - I agree because having sex without love is a kind of sex sale.

3 - I disagree because sex should be with a legal partner, even if two persons love each other.

4 - I agree because love makes for perfect and satisfying sexual intercourse.

E4-3 It is all right for two people to have sex before marriage if they are in love.

1 - I agree because it is no problem if they love each other.

2 - I agree because it is no problem if they are going to be married.

3 - I disagree because they may still decide to break off the relationship.

4 - I disagree because sex should be saved for the marriage.

E4-4 Sex is supposed to come from true love.

1 - I agree because sex unifies the body and mind.

2 - I agree, but sex should be saved for marriage, even if two people love each other.

E4-5 Sex is a kind of game.

1 - I disagree because sex is sacred and an important behaviour that unifies the body and mind.

2 - I disagree because sex is an important deed that may result in having a baby.

3 - I disagree because sex is entirely different from playing.

E4-6 Sex with an older person is normal, common sense behaviour.

1 - I disagree because morally it should not be allowed.

2 - I disagree because it is a kind of sex sale that involves using your body.

E4-7 I consider sex with an older person if I need money.

1 - It never happens among adolescents, because it is ethically and morally unacceptable.

2 - I disagree, because it can ruin my life.

3 - I disagree, because I cannot allow sex for payment.

4 - I agree, because I will consider it if I need money urgently.

E4-8 I intend to have sex whenever I have the chance.

1 - I disagree because I am still young.

2 - I will endure until marriage because sex should happen after marriage.

3 - I don't know yet, but I will read the situation.

4 - I will have sex if my partner wants to have sex.

E4-9 It is OK for males to have sexual intercourse before marriage.

1 - I disagree because males should also save their virginity for their spouse.

2 - I disagree because males should have sex after marriage.

3 - I disagree because of the danger of an STD infection.

4 - I agree because it depends on the situation.

E4-10 It is OK for females to have sexual intercourse before marriage.

1 - I disagree because females should save their virginity till they're married.

2 - Females can also have sex before marriage because males have. Therefore, I agree with it.

3 - I agree, if they love each other.

E4-11 I will feel guilty if I have sexual intercourse before marriage.

1 - I agree because my present situation cannot shoulder the responsibility for my partner.

2 - I think it is bad behaviour, because sex is not allowed before marriage.

3 - I disagree because it is OK if two people love each other.

4 - Neither agree nor disagree: It depends on the situation.

E5-1 A woman should be a virgin until she marries.

1 - I agree because a woman must try to save her virginity.

2 - I agree because a man who marries a virgin will not lead a loose life after marriage.

E5-2 I will try to keep my virginity until I am married.

1 - I agree because it is my responsibility.

2 - I agree because I want to give my virginity to my life partner.

E5-3 I will practice abstinence because of fear of becoming pregnant.

1 - I disagree because the reason for abstinence is not only fear of becoming pregnant.

2 - I agree because I cannot take on such a responsibility at my age.

E5-4 I will practice abstinence because of fear of an STD/AIDS infection

1 - I disagree because the reason for abstinence is not only fear of an STD infection.

E5-5 I will abstain from sex because of my religious belief.

1 - I disagree because the reason for abstinence is not only religious belief.

2 - I agree, even if I don't have any religious belief.

E5-6 I can say "NO" to my boyfriend/girlfriend when asked to have sexual intercourse.

1 - It depends on the situation.

E6-1 I will support a decision to have an abortion.

1 - I disagree because new life must not be killed.

2 - I disagree because an abortion can cause a lot of unhappiness.

3 - I disagree because it involves the life of a baby.

4 - I will decide according to the situation.

5 - I agree because in my situation, I'm not able to keep a baby.

E6-2 I will marry my partner if we are expecting a baby.

1 - I disagree because it is difficult to get married now.

2 - I agree because it shows a sense of responsibility.

3 - If my parents allow me to get married, I will marry him/her.

E6-3 I will leave my partner if we are expecting a baby.

1 - I disagree because of my responsibility.

2 - I agree, if the relationship is harmful to my partner.

E6-4 I will tell my mother and/or father that we are expecting a baby.

1 - I disagree because my parents will be disappointed.

2 - I disagree because my parents will regard me as a problem child.

3 - I agree because I need my parents' help.

E6-5 I will support my partner to keep the baby.

1 - I agree because a new life is valuable.

2 - I agree because abortion is murder.

3 - I disagree because I don't have the ability to foster a baby at this time.

E7-1 I feel induced abortion is murder.

1 - I agree because induced abortion is murder.

2 - I agree because it is the same as killing a baby who has already been born.

E7-2 I would feel guilty if I had an induced abortion or asked my girlfriend to undergo it.

1 - I agree because it would make me a murderer.

E7-3 I would feel anger towards myself if I had an induced abortion or if I asked my girlfriend to do it.

1 - I disagree because I am a student. I can't raise a baby.

2 - I agree because it is a way of avoiding responsibility.

E7-4 I will look for a skilled doctor when induced abortion is needed.

1 - I agree because I am concerned about certain side-effects of an abortion.

E7-5 I think induced abortion should never be allowed.

1 - I disagree because abortion must be allowed when it is needed.

2 - I agree because induced abortion is the same as murder.

E7-6 I think it will be necessary to visit a psychologist/social worker after undergoing an induced abortion

1 - I agree because abortion might leave mental scars which may be difficult to deal with.

2 - I agree because abortion might be a psychological shock.

E7-7 I think a girl should take good care of herself after undergoing an induced abortion because it is the same as giving birth.

* None

E8-1 I can't ask my partner to use contraceptives.

1 - I disagree because contraception is for the sake of preventing pregnancy and for protecting my partner.

2 - I disagree because it is needed to prevent unwanted pregnancy.

3 - I agree because I feel ashamed when I ask my partner to use a contraceptive.

4 - Neither agree nor disagree: It depends on the situation.

E8-2 I think that using contraceptive methods makes you feel guilty.

1 - I disagree because it protects new life.

2 - I disagree because contraception prevents unwanted pregnancy and is for the sake of each other.

3 - I disagree because contraception is for my own protection.

E8-3 I think only females must make use of the sterilisation method when contraception is needed permanently.

1 - I disagree because males can (or should) do it.

2 - I disagree because male sterilisation is simpler and safer than female sterilisation.

E8-4 I like to use a condom for contraception.

1 - I agree because a condom can prevent an STD and HIV.

2 - I agree because a condom is simple and easy to use.

3 - I disagree because semen can penetrate into a vagina in spite of the condom.

4 - I disagree because there are better contraceptive methods.

E8-5 I don't like to have sex without using some form of contraception.

1 - I agree because contraception removes the fear of pregnancy.

E8-6 I think contraception is the male's responsibility.

1 - I disagree because contraception is the responsibility of both the male and female.

2 - I disagree because females who often have sexual relationships should take responsibility for contraception.

E8-7 I think contraception is the female's responsibility.

1 - I disagree because contraception is the responsibility of both the male and female.

2 - I disagree because males should be prepared for unplanned sexual intercourse.

E8-8 I think contraception is not as important as some people say.

1 - I disagree because contraception is necessary for the prevention of unwanted pregnancy and for the sake of each other.

2 - I disagree because pregnancy should happen after marriage. Therefore, it is important to prevent unwanted pregnancy.

E9-1 I don't want to have sex with anyone because I am afraid of an STD infection.

1 - I agree because sex makes me afraid of an STD infection.

2 - I agree because STDs do not infect adults only.

3 - I agree because I worry about the symptoms of an STD.

4 - I disagree because STDs can be cured.

E9-2 I don't like sex with an older person because there is a higher risk of STDs.

1 - I agree because a young person who has sex with an older person has a higher risk of contracting an STD.

E9-3 I will visit a doctor when I think I am infected with any kind of STD.

1 - I disagree because I am afraid of seeing a doctor, and I'll feel ashamed.

2 - I will have difficulty in deciding whether or not to visit a doctor.

3 - I agree because it needs to be cured.

4 - I agree because I want to have the accurate diagnosis of a doctor

5 - I agree because I am a valuable person.

E9-4 I will visit a doctor when I think I am infected with gonorrhoea.

1 - I disagree because I am afraid of seeing a doctor, and I'll feel ashamed.

2 - I agree because it must be cured in order to prevent genital inflammation.

3 - I agree because it needs to be treated in the early stages.

E9-5 I will visit a doctor when I think I am infected with Syphilis.

1 - I disagree because I am afraid of seeing a doctor, and I'll feel ashamed.

2 - I agree because syphilis can cause serious physical damage and even death.

3 - I agree because it needs to be treated in the early stages.

E9-6 I will visit a doctor when I think I am infected with genital herpes.

1 - I disagree because I am afraid of seeing a doctor, and I'll feel ashamed.

2 - I agree because accurate treatment is needed.

3 - I agree because of my future.

E9-7 I will use a condom to prevent STD infection.

1 - I agree because a condom can prevent the spread of STDs because of the protective membrane.

2 - I disagree because a condom cannot totally prevent STD infection.

E10-1 I don't like to share a house with someone who is HIV positive.

1 - I disagree because HIV is not transmitted by ordinary daily activities.

2 - I disagree but I worry about HIV infection, even if it is not transmitted by ordinary daily activities.

3 - I agree because I am afraid of being infected with HIV by the HIV positive person.

E10-2 I don't like to use the same toilet as a person with AIDS.

1 - I disagree because HIV is not transmitted by a toilet seat.

2 - I disagree but I do worry about HIV infection, even if it is not transmitted by ordinary daily activities.

3 - I agree because I am afraid of being infected with HIV by the HIV positive person.

E10-3 I don't like to hug a person with AIDS.

1 - I disagree because HIV is not transmitted by a hug.

2 - I disagree but I do worry about HIV infection, even if it is not transmitted by a hug.

3 - I agree because I am afraid of being infected with HIV by the HIV positive person.

E10-4 I don't like to swim in the same swimming pool as people with AIDS.

1 - I disagree because HIV is not transmitted by water in a swimming pool.

2 - I disagree but I do worry about HIV infection, even if it is not transmitted by water in a swimming pool.

3 - I agree because I am afraid of being infected with HIV by the HIV positive person.

E10-5 I don't like to shake hands with someone who is infected with HIV.

1 - I disagree because HIV is not transmitted by shaking hands.

2 - I disagree but I do worry about HIV infection, even if it is not transmitted by shaking hands.

3 - I agree because I am afraid of being infected with HIV by the HIV positive person.

E10-6 I don't like to share food with a person who has AIDS.

1 - I disagree because HIV is not transmitted by sharing food.

2 - I disagree but I do worry about HIV infection, even it is not transmitted by sharing food.

3 - I agree because I am afraid of being infected with HIV by the HIV positive person.

E10-7 I don't like to take a course of any educational activities with someone who is HIV positive.

1 - I disagree because HIV is not transmitted by studying or doing activities together.

2 - I disagree but I do worry about HIV infection, even if it is not transmitted by sharing a course of any educational activities.

3 - I agree because I am afraid of being infected with HIV by the HIV positive person.

E10-8 I don't like to kiss a person with AIDS

1 - I disagree but I do worry that HIV can be transmitted by kissing.

2 - I agree because HIV can be transmitted by deep kissing.

3 - I agree because I am afraid of being infected with HIV by the HIV positive person.

E10-9 I don't like to share blades with someone who is infected.

1 - I agree because HIV can be transmitted by using the same blades as an HIV positive person.

E10-10 I don't like to share the telephone with someone who is infected with HIV.

1 - I disagree because HIV is not transmitted by sharing a telephone.

2 - I disagree but I worry about HIV infection even if it is not transmitted by sharing a telephone.

E10-11 I will not reach the age of 25 without being infected with HIV.

1 - I agree because I'm sure I will not have imprudent sexual intercourse.

2 - I don't know yet because HIV can be transmitted in ways other than sexual intercourse.

3 - I agree because I will only have sex with a spouse after marriage.

E11-1 I feel good about my body

1 - I agree because of what my body looks like.

2 - I agree because I am healthy.

3 - I disagree because my body is not in good shape.

4 - I disagree because my breasts are too small.

5 - I disagree because my legs are short and fat.

6 - I disagree because I am fat/overweight.

E11-2 I am happy with my life.

1 - I agree because I am alive.

2 - I agree because I have a good home and my family lives in harmony.

3 - I agree because I have sufficient means of living.

E11-3 I have good relationships with my friends.

1 - I agree because I have many good friends around me.

2 - I agree because I have good relationships with my friends.

E11-4 I am proud of myself

1 - I agree because I try to do everything.

E11-5 I generally trust other people easily.

None.

E11-6 I think I am an optimistic person.

None.

E11-7 I easily get angry with other people.

1 - I disagree because I try to endure. It is better than getting angry.

2 - I disagree because I try to get it off my mind.

3 - I agree because I get nervous.

4 - I agree because I have a sanguine temperament.

E11-8 I am afraid of relationships with the opposite sex.

1 - I agree because it seems that many males want to have sex.

2 - I agree because I worry about spending money when I am dating.

3 - I agree because I am afraid of being pushed aside by the opposite sex.

E11-9 I want to become like my mother or father.

1 - I agree because they understand me well.

2 - I disagree because I want to become a great person who is better than my parents.

3 - I disagree because my parents' life is not enjoyable.

E11-10 I always think of the other person first when I'm dating.

1 - I agree because I always consider my partner's mood.

2 - I agree because I want to be polite.

3 - I don't know because I have never been on a date.

E11-11 When I am dating, I like to go to secluded places.

1 - I disagree because I like to go to bright and open places.

2 - I disagree because I like to go to exciting places.

3 - I disagree because I like to go to crowded place.

4 - I disagree because secluded places scare me.

E11-12 I like kissing my girlfriend/boyfriend in public places.

1 - I disagree because I like to express my love in privacy.

2 - It depends on the situation.

3 - I agree, if two people love each other.

4 - I agree because it looks nice.

5 - I disagree because many people look at me. It makes me feel ashamed.

E12-1 I like to talk about sexual issues with my parents.

1 - I disagree because it makes me feel ashamed to talk with my parents.

2 - Neither agree nor disagree: I don't have time to talk about sexuality.

E12-2 I feel my parents are appropriate sexuality educators.

1 - I disagree because my parents are not appropriate sexuality educators.

E12-3 I like to undergo sexuality education in school.

1 - I disagree because sexuality education should not only be done in school but also in other places.

2 - I agree but if sexuality education can take place at home as well, it will be better.

3 - I agree because students can learn more about sexuality information and a school is an educational place.

4 - I agree because I like to receive sexuality education in a group.

E12-4 I feel sexuality education is helpful to me.

1 - I agree because I can learn new information about sexual issues and I see myself more valuable than before.

2 - I agree because I can protect myself from sexual risks.

3 - I agree because I have the correct sexual knowledge and my knowledge is better than before.

It might be very helpful to me in the future.

4 - I disagree because I knew the sexual information already.

E12-5 I am satisfied with the sexuality education that I have received up to date.

1 - I agree because I have a lot of new information about sexual knowledge and I see myself more valuable than before.

2 - I agree because I have a lot of correct sexual knowledge and I can protect myself from sexual risks.

3 - I agree because a teacher has explained the correct sexual information. It made me understand the issue very well.

4 - I disagree because I knew the sexual information already.

Annexure I:

THE SEXUALITY EDUCATION PROGRAMME FOR MIDDLE SCHOOL LEARNERS

SEXUALITY EDUCATION PROGRAMME for CO-EDUCATED MIDDLE SCHOOL LEARNERS

* Duration: March to July in 2004

* A sexuality education program for 9th graders at middle schools

The contents of sexuality education programme are referenced by SIECUS and MEHRD in Korea. The sexuality education programme is divided into 15 sessions. Sessions 1~8 are about sexual knowledge and the 9th ~ 15th are about attitudes toward sexuality.

Course Unit Outlay	
Session	**Learning subject**
1st session	**Sexuality and self-awareness**
2nd session	**Male reproductive system and nocturnal emission**
3rd session	**Female reproductive system and menstruation**
4th session	**Pregnancy**
5th session	**Abortion**
6th session	**Contraceptives**
7th session	**STDs**
8th session	**HIV and AIDS**
9th session	**Sexual desire and masturbation**
10th session	**Relationships with the opposite sex and dating**
11th session	**Importance of self-decision**
12th session	**Self-expression and assertiveness**
13th session	**Sexual abuse**
14th session	**Lascivious media and sex for reward**
15th session	**Equality between two sexes And healthy sexual life**

Course Unit Plan

<table>
<tr><td rowspan="2">Learning Subject</td><td rowspan="2">Sexuality and self-awareness</td><td>Session</td><td>1/15</td></tr>
<tr><td>Time</td><td>45min.</td></tr>
<tr><td>General Learning Objective</td><td colspan="3">Students will be able to understand sexuality and become aware that they are unique and worthwhile human beings. Also, students will be able to understand their physical and emotional changes during adolescence through understanding the sexuality development process.</td></tr>
<tr><td>Specific Learning Objectives</td><td colspan="3">1) Understand what sexuality is
2) Understand personality development
3) Understand sexuality development in adolescence and secondary sex characteristics
4) Understand sexual identity</td></tr>
<tr><td rowspan="2">Activities</td><td>Learning contents</td><td>Time (min)</td><td>Materials</td></tr>
<tr><td>1. Introduction of contents of sexuality education for 15 sessions

2. Lecture
1) What is sexuality?
- Difference between sex, gender, and sexuality
2) Personality development theories of Freud and Erickson
- From oral stage (age 1) to genital stage (adolescence)
3) Sexuality development in puberty
- Biological, emotional, and social development
4) Sexual identity
- Self-awareness and pride in self as a male or female

3. Discussion and Summary</td><td>10

25

10</td><td>Power point (PPT)</td></tr>
<tr><td>Announcement</td><td colspan="3">The contents of the 2nd session
- Male reproductive system and nocturnal emission</td></tr>
</table>

Learning Subject	Male reproductive system and nocturnal emission	Session	2/15
		Time	45min.

General Learning Objective	Students will be able to understand the male reproductive system and hormonal effects such as nocturnal emission. Students also will be able to understand and practice the importance of genital hygiene in males.
Specific Learning Contents	1) Understand the male reproductive structure and functioning 2) Understand why nocturnal emission occurs 3) Understand the importance of genital hygiene in males

	Learning contents	Time (min)	Materials
Activities	1. Review the contents of the 1st session.	5	
	2. Lecture 1) Reproductive structure and function of the male - External parts: penis, scrotum - Internal parts: testes, epididymis, vas deference, seminal vesicle, prostate gland, Cowper's gland, ejaculation duct, urethra 2) Reason for nocturnal emission - Increase in testosterone and sperm production 3) Genital hygiene - Symptoms of gland inflammation and its prevention - Male genital circumcision is good for prevention of genital infection.	25	Power point (PPT)
	3. Viewing video tape * Title: Reproductive structure and function of the male		Video Tape
	4. Discussion	10	
	5. True-or-false quiz and Summary	5	
Announcement	The contents of the 3rd session - Female reproductive system and menstruation		

Learning Subject	Female reproductive system and menstruation	Session	3/15
		Time	45min.

General Learning Objective	Students will be able to understand the female reproductive system and hormonal effects such as menstruation. Students also will be able to understand and practice the importance of genital hygiene in females.
Specific Learning Contents	1) Understand the female reproductive structure and function 2) Understand why menstruation occurs 3) Understand the importance of genital hygiene in females

	Learning Contents	Time (min)	Materials
Activities	1. Review the contents of the male reproductive system	5	
	2. Lecture 1) Reproductive structure and function of the female - External parts: Labium majus, labium minus, clitoris, hymen, vaginal opening - Internal parts: Vagina, uterus, fallopian tube, ovary 2) Ovulation and menstruation period - Hormones relating to menstruation * oestrogen, progesterone, LH - Cycle of menstruation - Menstruation period 3) Female genital hygiene - Cause and symptoms of vaginal infection - Prevention of vaginal infection	25	PPT
	3. Viewing video tape * Reproductive structure and function of the female		Video Tape
	4. Discussion	10	
	5. True-or-false quiz and Summary	5	
Announcement	The contents of the 4th session - Pregnancy		

<table>
<tr><td>Learning Subject</td><td>Pregnancy</td><td>Session</td><td>4/15</td></tr>
<tr><td></td><td></td><td>Time</td><td>45min.</td></tr>
<tr><td>General Learning Objective</td><td colspan="3">Students will be able to understand the process of pregnancy, symptoms of pregnancy, and the prenatal care for having a healthy baby.</td></tr>
<tr><td>Specific Learning Contents</td><td colspan="3">1) Understand the process from fertilisation to implantation
2) Understand the developmental process of the foetus
3) Understand symptoms of pregnancy
4) Understand the process of parturition
5) Understand prenatal care and antenatal training</td></tr>
<tr><td rowspan="2">Activities</td><td>Learning Contents</td><td>Time (min)</td><td>Materials</td></tr>
<tr><td>1. Review the content of female reproductive system

2. Viewing video tape:
* Title: Fertilisation - Pregnancy - Parturition
1) Pregnancy
- the process from fertilisation to implantation
2) Developmental process of foetus
- the foetus at 4, 6, 9, 12, 16 weeks after implantation
3) Symptoms of pregnancy
4) Parturition

3. Supplementary explanation
1) The function of the placenta, umbilical cord and amniotic fluid
2) Calculation method of expected date of birth
A. Importance of antenatal training

4. Discussion

5. True-or-false quiz and Summary</td><td>8

15

10

10</td><td>Video tape

PPT</td></tr>
<tr><td>Announcement</td><td colspan="3">The contents of the 5th session
- Abortion</td></tr>
</table>

<table>
<tr><td>Learning Subject</td><td>Abortion</td><td>Session</td><td>5/15</td></tr>
<tr><td></td><td></td><td>Time</td><td>45min.</td></tr>
<tr><td>General Learning Objective</td><td colspan="3">Students will be able to understand the danger of abortion and the effects (sequelae) of induced abortion. Student will also become aware of the dignity of human beings.</td></tr>
<tr><td>Specific Learning Contents</td><td colspan="3">1) Understand the dangers of induced abortion
2) Understand the effects of induced abortion
3) Understand the dignity of human beings</td></tr>
<tr><td rowspan="2">Activities</td><td>Learning Contents</td><td>Time (min)</td><td>Materials</td></tr>
<tr><td>1. Review the meaning of pregnancy

2. Viewing video tape
* Title: The silent scream
1) The reason of having an induced abortion
2) The method of performing an induced abortion
- Induced abortion of a 12-week old foetus by vacuum aspiration
3) Danger of abortion and its effects

3. Supplementary explanation
1) The effects of induced abortion
2) Allowing abortion

4. Let's think together
1) Do you think that abortion is the same as murder?
2) What could you do to prevent induced abortion?

5. Summary</td><td>5

30

10</td><td>Video tape

PPT</td></tr>
<tr><td>Announcement</td><td colspan="3">The contents of the 6th session
- Contraception</td></tr>
</table>

<table>
<tr><td>Learning Subject</td><td colspan="2">Contraception</td><td>Session</td><td>6/15</td></tr>
<tr><td></td><td colspan="2"></td><td>Time</td><td>45min.</td></tr>
<tr><td>General Learning Objective</td><td colspan="4">Students will be able to understand the importance of contraception and how to use the contraceptives to prevent unwanted pregnancy and induced abortion.</td></tr>
<tr><td>Specific Learning Contents</td><td colspan="4">1) Understand the importance of contraception
2) Learn about the kinds of contraceptives
3) Understand how to use the contraceptives</td></tr>
<tr><td rowspan="2">Activities</td><td colspan="2">Learning contents</td><td>Time (min)</td><td>Materials</td></tr>
<tr><td colspan="2">1. Review induced abortion

2. Viewing video tape
* Title: Contraceptives
1) The importance of contraception
2) The kinds of contraceptives
3) How to use the contraceptives
: Body temperature method, calendar method, withdrawal, condom and femidom, pills, norplant, spermicide, IUD, sterilisation, emergency pill

3. Supplementary explanation
- The importance of using contraceptives correctly

4 Discussion
- The importance of contraception
- Which contraceptive to use

5. Summary</td><td>5

22

8

10</td><td>Video tape

Contracep-tive material</td></tr>
<tr><td>Announcement</td><td colspan="4">The contents of the 7th session
- Sexually transmitted diseases (STDs)</td></tr>
</table>

Learning Subject	Sexually transmitted diseases (STDs)	Session	7/15
		Time	45min.
General Learning Objective	Students will be able to be understood the ways of transmission and the symptoms of STDs. Students also will be able to protect themselves against contraction of STDs.		
Specific Learning Contents	1) Understand what STDs are 2) Understand the kinds of STDs 3) Understand the symptoms of STDs and their prevention		

	Learning contents	Time (min)	Materials
Activities	1. Review of best methods of contraceptives for teenagers	5	PPT
	2. Lecture 1) What are STDs? 2) The kinds of STDs - Gonorrhoea, non-gonococcus urethritis, syphilis, genital herpes, chancroid, condylom, pubic lice 3) The symptoms of each of the STDs 4) How to prevent STD transmission	25	
	3. True-or-false questions: - Genital herpes is an STD that appears in the form of blisters around the organ (T) - Genital herpes is hard to cure (T) - Symptoms of gonorrhoea in women are usually difficult to notice (T) - If gonorrhoea goes untreated, it can lead sterilisation - Congenital syphilis is the infection of a foetus through an infected mother (T) - If symptoms of an STD disappear without treatment, it is cured (F)	10	
	4. Summary	3	
Announcement	The contents of the 8th session : Acquired Immuno Deficiency Syndrome (AIDS)		

<table>
<tr><td>Learning Subject</td><td>AIDS</td><td>Session</td><td>8/15</td></tr>
<tr><td></td><td></td><td>Time</td><td>45min.</td></tr>
<tr><td>General Learning Objective</td><td colspan="3">Students will be able to be understood the ways of transmission and the symptoms of HIV and AIDS. Students also will be able to protect themselves against the contraction of HIV, and they will be able to understand how to behave towards AIDS patients.</td></tr>
<tr><td>Specific Learning Contents</td><td colspan="3">1) What HIV and AIDS are
2) The ways of transmission of the AIDS virus
3) Measures to prevent the transmission of the AIDS virus
4) The symptoms of AIDS patients
5) How to behave towards AIDS patients</td></tr>
<tr><td rowspan="2">Activities</td><td>Learning contents</td><td>Time (min)</td><td>Materials</td></tr>
<tr><td>1. Review of the methods to prevent STD infection

2. Lecture
A. What are HIV and AIDS
B. Ways of transmission of the AIDS virus
C. Measures to prevent the transmission of the AIDS virus
D. Symptoms of AIDS patients
E. How to behave towards AIDS patients

3. Let's think about the following 3 stories
- Story 1: Mimi's mother asked her to stop her group activity because Mimi is working with Kongkong, who is infected by HIV.

- Story 2: Mimi heard that her best friend Haha wishes to have a deeper relationship with Young, who has sexual intercourse with other girls.

- Story 3: Chungchung is 25 years old. He has experienced a number of symptoms for the past 2 years. These days, Chungchung spends most of his time in bed.

4. True-or-false quiz and Summary</td><td>5

15

15

8</td><td>

PPT

Printed matter</td></tr>
<tr><td>Announcement</td><td colspan="3">The contents of the 9th session
- Sexual desire and masturbation</td></tr>
</table>

Learning Subject	Sexual desire and masturbation	Session	9/15
		Time	45min.
General Learning Objective	Students will be able to understand that experiencing sexual desire during adolescence is natural, and they will understand the reason for experiencing these sexual desires. Students will also learn about things to pay attention to for masturbation.		
Specific Learning Contents	1) Sexual desire during adolescence 2) Ways to control and relieve sexual desire 3) About masturbation 4) Things to pay attention to for masturbation 5) The effects of practicing masturbation		

	Learning contents	Time (min)	Materials
Activities	1. Review of preventative measures against HIV infection and behaviour towards AIDS patients	5	
	2. Viewing video tape Title: Stories of teenagers 1) What sexual desire is and why it is aroused 2) Ways to control and relieve sexual desire 3) Masturbation is natural behaviour	15	Video Tape
	3. Supplementary explanation 1) Things to pay attention to when masturbating 2) Effects of practicing masturbation	10	PPT
	4. Discussion - Situation 1: How would you deal with a situation where you cannot concentrate on your studying because you often see or read pornographic material and visit lascivious sites on the Internet? - Situation 2: How would you deal with a situation where you masturbate every night because you like to have imaginary sexual intercourse with the opposite sex before going to bed or while studying?	10	Printed matter
	5. Summary	3	
Announcement	The contents of the 10th session - Relationships with the opposite sex and dating		

Learning Subject	Relationships with the opposite sex and dating	Session	10/15
		Time	45min.
General Learning Objective	Students will be able to understand the meaning of relationships with the opposite sex and will be able to develop healthy attitudes for good relationships with the opposite sex.		
Specific Learning Contents	1) The meaning of and healthy attitudes for relationships with the opposite sex 2) Developing interpersonal skills between the two sexes 3) Understanding the different sexual emotion experienced by the two sexes 4) Etiquette when dating		

Activities	**Learning contents**	Time (min)	Materials
	1. Review of the causes of sexual desire and ways to control or relieve it	5	
	2. Viewing video tape Title: Healthy relationship between the opposite sex 1) Healthy attitudes for relationships and dating between the opposite sexes 2) Different sexual emotions between the two sexes 3) Etiquette when dating	15	Video Tape
	3. Discussion : Interpersonal skills between the two sexes Situation 1: When your friend couldn't keep his/her promises … Situation 2: When your friend feels jealous because you have another girlfriend/boyfriend …	15	Printed matter (Role Play)
	4. Story: The love of a porcupine	5	
	5. Summary	5	
Announcement	The contents of the 11th session - Importance of making your own decisions		

<table>
<tr><td>Learning Subject</td><td colspan="2">Importance of making your own decisions</td><td>Session</td><td>11/15</td></tr>
<tr><td></td><td colspan="2"></td><td>Time</td><td>45min.</td></tr>
<tr><td>General Learning Objective</td><td colspan="4">Students will be able to understand the importance and responsibility of making their own decisions. Students will also be able to understand the relation between love and sex.</td></tr>
<tr><td>Specific Learning Contents</td><td colspan="4">1) Understand the relation between love and sex
2) Understand the importance of making your own decision about sexual behaviour
3) Understand how to reasonably deal with a situation where you decide against sexual behaviour</td></tr>
<tr><td rowspan="2">Activities</td><td colspan="2">Learning contents</td><td>Time (min)</td><td>Materials</td></tr>
<tr><td colspan="2">1. Review of the meaning of a relationship with someone of the opposite sex and the etiquette of dating

2. Lecture
1) Importance of making your own decisions
2) Three factors of sexuality and their harmony:
- love, life, pleasure
- love and sex

3. Discussion
1) What is your decision after reading one story?
2) Importance of making your own sexual decisions
Story A: A decision not to have sex
Story B: No sex without a condom

4. Viewing video tape
Title: Beautiful clouds and dark clouds
(Responsibility after having sexual intercourse)

5. Summary</td><td>5

10

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5</td><td>PPT

Video tape</td></tr>
<tr><td>Announcement</td><td colspan="4">The contents of the 12th session
- Expression and assertiveness</td></tr>
</table>

Learning Subject	Expression and assertiveness	Session	12/15
		Time	45min.

General Learning Objective	Students will be able to understand the importance of self-expression. Students will also be able to develop more effective conversation and refusal skills.
Specific Learning Contents	1) Understand the importance of self-expression and assertiveness 2) Develop effective conversation and refusal skills

	Learning contents	Time (min)	Materials
Activities	1. Review of the importance of making your own decisions and of responsibility	5	
	2. Lecture 1) Importance of self-expression and assertiveness 2) Effective conversation and refusal skills	15	PPT
	3. Discussion - Let's talk about your response in the following situation 1) Conversation skills Situation 1: When a friend of mine ruins an art piece that I've made … Situation 2: When you feel that you won't get the money back after lending it to somebody 2) Refusal skills Situation 1: When your boyfriend/girlfriend wants you to imitate a love scene in a movie Situation 2: When your boyfriend/girlfriend asks for sexual intercourse with you Situation 3: When your boyfriend/girlfriend invites you to spend a night with other friends of the opposite sex on his/her birthday	20	Printed matter
	4. Summary	5	
Announcement	The contents of the 13th session : Sexual abuse		

Learning Subject	Sexual abuse	Session	13/15
		Time	45min.
General Learning Objective	Students will be able to understand the meaning of sexual abuse, and will know examples and the effects (sequelae) of sexual abuse. Students also learn measures to prevent it.		
Specific Learning Contents	1) Understand the meaning of sexual abuse 2) Know examples of sexual abuse 3) Understand measures to prevent sexual abuse 4) Understand the effects of and treatment for sexual abuse		

	Learning contents	Time (min)	Materials
Activities	1. Review of the importance of self-expression and effective refusal skills	5	
	2. Viewing video tape Title: Sexual abuse and its prevention 1) Types of sexual abuse 2) The reason the incidence of sexual abuse	10	Video tape
	3. Lecture and discussion 1) Case of sexual abuse 2) Preventative methods against sexual abuse 3) Skills to deal with situations posing the danger of sexual abuse 4) Skills to deal with lascivious telephone calls 5) The effects of sexual abuse and its treatment - Go to the hospital and check for sperm, possible pregnancy, and venereal disease (STD)	20	PPT
	4. True-or-false quiz and Summary	10	
Announcement	The contents of the 14th session - Lascivious material and sex for reward		

Learning Subject	Lascivious media and sex for reward	Session	14/15
		Time	45min.
General Learning Objective	Students will be able to understand how to think and make decisions about lascivious media, sex-merchandize and sex-sale.		
Specific Learning Contents	1) The reason why for the existence of lascivious media 2) The meaning of sex-merchandise 3) The effects and ways to manage lascivious media 4) The problems of and solutions for commercial teen sex and Wonzogyoge		

	Learning contents	Time (min)	Materials
Activities	1. Review of the kinds of lascivious material and ways to prevent it	5	
	2. Discussion 1) What is sex merchandise? 2) How does sex merchandise effect us? 3) What is the best way to obtain correct knowledge and to make the right decisions about lascivious media? 4) Let's think about commercial sex and Wonzogyoze	15	PPT
	3. Analysis through role play - Possible for Wonzogyoze to happen	20	Role play
	4. Summary	5	
Announcement	The contents of the 15th session - Equality between the two sexes and healthy sexual life		

<table>
<tr><td>Learning Subject</td><td>Equality between two sexes and healthy sexual life</td><td>Session</td><td>15/15</td></tr>
<tr><td></td><td></td><td>Time</td><td>45min.</td></tr>
<tr><td>General Learning Objective</td><td colspan="3">Students will be able to understand traditional sex roles and equal sex roles between the two sexes. Students will also be able to understand how to lead a healthy sexual life and how to have a happy future.</td></tr>
<tr><td>Specific Learning Contents</td><td colspan="3">1) Understand sex roles and discrimination between the two sexes
2) Understand equality between the two sexes
3) Understand how to lead a healthy sexual life in future</td></tr>
<tr><td rowspan="2">Activities</td><td>Learning contents</td><td>Time (min)</td><td>Materials</td></tr>
<tr><td>1. Review of having the right thoughts about sex merchandised material / lascivious material.

2. Lecture
1) Traditional sex role
- Traditional concepts of femininity and masculinity
2) Sex role and equality between the two sexes

3. Discussion
- How can you lead a healthy sexual life?

4. Summary
- Briefly summarise for all cover of 15 sessions
- Emphasize to prevent sexual risks and improve sexual behaviour for a healthy sexual life and family life in future.</td><td>5

15

15

10</td><td>PPT</td></tr>
<tr><td>Announcement</td><td colspan="3">Announcement of questionnaire that will be administered two weeks later.</td></tr>
</table>