CHAPTER 2

REVIEW OF LITERATURE

In this section, the literature was reviewed to find out what is known about, and what the issues are in our understanding of adolescent sexual development, adolescent sexual and reproductive health, sexual and reproductive health education programs and related studies, existing sexuality education curriculum, and sexual and reproductive health education in Thailand.

Adolescent Sexual Development

Adolescence, the unique developmental period from childhood to adulthood, is one of the most fascinating and complex transitions in a life span. It is characterized by tremendous biological, cognitive, psychosocial, and sexual change (Ford, & Coleman, 1999; WHO, 1997). WHO defined adolescence as the period of life spanning between the ages of 10-19 years, and classified it as occurring in three phases by sex. For males early adolescence included ages 12-14, middle adolescence includes ages 15-17, and late adolescence includes ages 18-20 which overlap with the young adults period (20-24 years); for females the ages include 10-12 years, 13-15 years, and 16-19 years respectively. The National Commission on Adolescent Sexual Health has also categorized adolescence into three developmental stages: early adolescence: females ages 9-13 and males ages 11-14, middle adolescence: females ages 13-16 and males ages 15-17, and late adolescence: female ages 16 and older and males ages 17 and older (Haffner, 1995).

Whereas the term adolescence refers to the general development changes that occur between childhood and adulthood, the term puberty refers specifically to biological changes. Even though changes in the reproductive system are most associated with puberty, virtually all body tissues are affected. Dramatic changes in the reproductive system and the development of secondary sexual characteristics are a unique aspect of puberty. For girls, the onset of puberty begins between 8 and 13 years of age. In boys, the normal range of the onset of puberty is between 9.5 and 13.5 years of age (Ford & Coleman, 1999). Early puberty developments are associated with an increase in the likelihood of early experimentation with sexuality, and boys or girls who develop puberty early are more likely than others to have had sexual intercourse (Chilman, 1990; Paikoff & Brooks-Gunn, 1999). Adjusting to the biological changes of puberty is a major task of early adolescence.

Although early adolescents have been less emphasized in past sexual and reproductive health research, sexual development begins and makes them encounter dramatic changes in this period of life. It is a transitional phase, in which early adolescents need help and understanding to promote normal sexual life and to prevent sexual risk behavior in the future. Development is commonly divided into four aspects; physiological, psychosocial, cognitive and moral development. In this section I examine the literature on adolescents' normal development and link to sexual risk behavior using Bronfenbrenner's Ecological System Theory (1979).

Bronfenbrenner (1979) proposed a new perspective in the conception of the evolving interaction between the developing person and his or her environment. He defined development as the person's evolving conception of the ecological environment, and his/her relation to it, as well as the person's growing capacity to discover, sustain, or

alter the properties of the intermediate settings in which the developing person lives. Development is also affected by the relations between these settings and by the larger contexts in which the settings are embedded. He based his work heavily on the ideas of Piaget and researching primarily with children. This theory mentioned multi-systems that influence a person's behavior and focused great attention on environmental factors which exert both direct and indirect effects on human development, painting a more balanced picture of persons' and environments' contributions to events. According to this perspective, adolescent sexual behavior can be portrayed as systems -personal or self, family, extrafamilial or macro systems- that interact with each other, such that risks or resources from one serve to either potentate or buffer against the effect of others, and one system may serve as a partial or full mediator of the effects of other systems or factors within other systems on behavior.

Self or Personal System

Self or personal system is a system which relates to one's own self. It is composed of physiological, cognitive, moral-spiritual, psychosocial and sexual identity development aspects.

Physiological Development

Adolescence begins with puberty and lasts several years. Puberty is the time of the development of reproductive capacity, both in terms of somatic features and functions. From a medical perspective, puberty occurs when sexual reproduction first becomes possible, that is in the onset of spermatogenesis (production of spermatozoa) in boys and

menstruation (onset of menses) in girls. The state of sexual development is triggered by hormonal level. An increasing level of the luteinizing hormone (LH) and follicle stimulating hormone (FSH) stimulate the gonads to mature and produce sex hormones. FSH stimulates the development of seminiferous tubules in males; LH stimulates the Leydig cells in the testes to produce testosterone. Sex hormones are biochemical agents that primarily influence the structure and function of the sex organs and appearance of specific secondary sexual characteristics. Androgens are hormones that produce male-type physical characteristics and behaviors, whereas estrogens are hormones that produce feminine characteristics. All three sex hormones are in both sexes, but have different levels in each sex (Hoffman, Paris, Hall, & Schell, 1998; Gullotta, Adam, & Montemayor, 1993; Levine, & McAnarney, 1988).

Corresponding physical changes in boys include changes in body shape, growth of body hair, muscle development, change in voice and complexion; enlargement of the penis, scrotum, and testes; reddening of the scrotum; and changing in scrotal skin, texture; hair grows at the axillar and base of the penis and spreads over the pubis. Spermatogenesis (sperm production) and seminal emission mark puberty and sexual maturity in teenager boys. The first ejaculate of seminal fluid occurs approximately one year after the penis has begun its adolescent growth. Nocturnal emissions occur at approximately age 14 (Sherwen, Scolovens, & Weingarten, 1999; Wong 1999), and are often a great concern for boys. They are widely seen as a sign of manhood.

Several studies have reported that physical factors such as early pubertal development and rising testosterone levels are related to sexual interest and activities. They explain that androgen (particularly testosterone) appears to be the primary hormone

responsible for libido in both sexes. Increases in the free testosterone index (FTI) were found to be extremely important to initiating erotic behavior such as frequency of thoughts about sex and number of sexual outlets. The threshold level for sexual and erotic response is different between boys and girls. Girls are sensitive to narrative and tactile stimuli, whereas boys are sensitive to visual stimuli (Halpen, Udry, Suchidran 1997).

Sexual desire is under the control of the cerebral cortex. Difference in sexual desire exists in young males and females. The female experiences a more generalized pleasurable response to erotic stimulation but does not necessarily desire coitus. On the contrary, the male experiences a strong desire for coitus because of a localized genital sensation in response to erotic stimulation, which is accompanied by production of spermatozoa and secretion from accessory glands that build up pressure and excite the ejaculation response (Murray, & Zentner, 2001). The most common form of sexual outlet for both sexes, especially males, is masturbation. In urban Chiang Mai, adolescent boys admitted that by age 11 they had masturbated. They learned how to do it by themselves (Fongkaew, et al, 1998). However, this is also influenced by cultural and family expectations for sexual performance. There is no evidence that biological factors alone lead adolescents to sexual practice; other personal factors such as family, and socio-cultural factors play an important role in adolescent male sexual performance.

Apart from the hormonal change and sexual development that discussed above, many relevant articles demonstrated that other factors such as age, gender, and race were also related to adolescent sexual behavior. Older adolescents reported more sexual activity and having more partners than those of younger age. The mean age at the first intercourse is in the middle adolescence period. (Lammers, Ireland, Resnick, & Blum, 2000; Paul,

Fitzjohn, Herbison, & Dickson, 2000; Paradise, Cote, Minsky, Lourenco, & Howland, 2001; DiIorio, Dudley, Kelly, Soet, Mbwara, & Potter, 2001). Most researchers explained that this might be associated with physical maturity, delinquent behaviors, psychosocial and family factors. DiClemente, & Siegel (1993) concluded from their study on adolescent sexual behavior that experimenting with some sexual behavior is common during early adolescence, but sexual intercourse is usually limited. Involvement in sexual activity may not be about sexual pleasure, but rather may reflect peer norms, boredom, conflicts with adults, low self-esteem and poor ability to control impassivity. In middle and late adolescence, the cause of sexual activity is different from that in early adolescence. The desire to be accepted and often fall in love for the first time, and sexuality and sexual expression are of major importance in middle adolescents' lives. During late adolescence, sexuality may become more closely tied to commitment and planning for the future (Haffner, 1995).

Cognitive Development

The prospect stage of formal operations occurs in early adolescence period. Formal operations increase understanding of implications and consequences, and of cause-effect relations. The adolescent uses available information to combine ideas into concepts and concepts into constructs, develop theories, and look for supporting facts; consider alternate solutions to problems; project his or her thinking into the future; and tries to categorize thoughts into usable forms. Cognitive competence, as measured by academic performance, is a variable that has occupied a prominent position in the prediction of adolescent involvement in sexual activity. Poor academic performance, low

educational expectation, and low IQ level were independently associated with early sexual intercourse (Harvey, & Springer, 1995; Mott, Fondell, & Hu, 1996; Porter, Oakley, & Ronis, 1996; Paul, et al, 2000).

Understanding teenage cognitive skills, as well as encouraging attachment to yhe school is crucial for parents and related adults to providing knowledge, skill and attitudes in the adolescent population. Adolescents who achieve in school and are emotionally attached to their school were strongly negative in relation to early intercourse and delinquent behavior in both sexes (Paul, et al, 2000; Steinberg, 2000). Davis (2001) suggested that a primary goal of the clinician is to assess the cognitive development of the adolescent before implementing the service; this can promote the effectiveness of the given program. Parents sometimes underestimate the cognitive abilities of adolescents. This is one of the obstacles for communicating or discussing about sex and giving sex education. Many research evaluators suggested that by reaching children during their early middle school years of 5th and 6th grade, they would be able to prevent development of sexual risk behavior (Birdthistle, & Vince-Whitman, 1997; Gary, Kippax, & Aggleton, 2000; Hughes, & Sulton, 1996; Kirby, 1999).

Moral-Spiritual Development

Referring to Kohlberg's Theory of Moral Development, the adolescent typically is in the conformist stage. During this stage, the structure and order of society take on meaning for the person, and rules are followed because they exist. The young adolescent must examine parental moral and religious verbal standards against practice and decide if they are worth incorporating into his or her own life. He or she may appear to discard

standards of behavior previously accepted, although basic parental standards are likely to be maintained (Murray & Zentner, 2001). Gilligan cited in Murray & Zentner (2001) found a difference between adolescent males and females in moral reasoning. Males organize social relationships in a hierarchical order and subscribe to morality of rights. Females value interpersonal connectedness, care, sensitivity, and responsibility to others. Thus, adolescent girls and boys view dating relationships differently and approach aggressive situations from a different perspective. Commitment to religion has been shown by many studies to be a protective factor from sexual risk behavior among adolescents (Lammers, Ireland, Resnick, & Blum, 2000; Paul, Fitzjohn, Herbison, & Dickson, 2000; Sionean, DiClemente, Wingwood, Crosby, Cobb, Harrington, Davies, Hook & Oh, 2002).

Psychosocial Development

In general, dependency-independency struggles begin to show in adolescence. Conformity to and acceptance of peer group standards and peer friendships gain importance. The peer group usually consists of same-sex friends and then evolves into an increased interest in the opposite sex (Gormly, 1997). Identity, autonomy, sexuality especially sexual self-concepts, are developed and are of particular concern. Growth and physical change draw the adolescent's attention to the body part that is changing, and he or she becomes sensitive about it. The body acts as a source of acceptance or rejection by others; therefore, they focus attention on body surfaces. These are normal ways for early adolescents to integrate a changing body image. Young people experiencing these changes tend to exaggerate the impact of being "early" or "late", because somatic

development takes place at a time when many adolescents are engaging in social comparison and are concerned about not being different from their peers. Gullotta, Adams, & Montemayor (1993) also found that girls tend to be sensitive about "early" pubertal development whilst, in comparisons; boys tend to be more sensitive about "late" pubertal development. To accomplish this development task, they need others to help them to form their identities, sexual self-concept and body image development. Self-concept, body image, and sexuality development are interrelated and are influenced by parental and societal expectations of and reactions to each gender.

Teens who reported having had sex were more likely to have psychological problems than those who had not. The leading problems were hopelessness, conduct disorder, depression, anxiety and low social adjustment. The psychological factors protecting against early sexual intercourse were reported as absence of suicidal thought, high level of self-efficacy, and self reliance (DiIorio, 2000; Lammers, Ireland, Resnick, & Blum, 2000; Paul, Fitzjohn, Herbison, & Dickson, 2000;Steinberg, 2000). Self-esteem has not been clearly established because there has been discrepancy among some studies. (Lammers, et al, 2000; Miller, Miller, Forehand, Kotchick, 2000;Steinberg, 2000).

Sexual Identity Development

Identity formation is defined as a sense of wholeness, knowing the self as a unique person, feeling responsibility, loyalty, and commitment to a value system (Murray, & Zentner, 2001). The formation of identity can move in a positive direction when a stable sense of self is developed and adolescents know who and what they are. On the other hand, it can also move in a negative direction when the sense of self remains diffused, blurred and confused (Finkenauer, Engels, Meeus, & Oosterwegel, 2002). The

psychosexual crisis of adolescence is identity formation versus identity diffusion (Levine, & MaAnarney, 1988). A stable sense of self implies internal stability, sameness, or continuity, which resists extreme change and preserves itself from oblivion in the face of stress and contradictions.

Identity formation results through the synthesis of biopsychosocial characteristics and is enhanced by support not only from parents but also other adults, friends, social class, ethnicity, religion (Erikson, 1968). If adolescents feel comfortable with their personal identity, they will be better able to appreciate support from parents and their extrafamilial environment. The values, beliefs, and guidelines they have given him or her are internalized. On the other hand, if the adolescent fails to achieve a sense of identity, then they have doubts and confusion about the self. Many negative consequences including engaging in sexual risk behavior and deviant sex can occur. In a retrospective study by Haffner (1995), many gay and lesbian adults were found to identify adolescence as a period of confusion about their sexual identity. In the process of achieving identity and committing to goals in life, the person may experience a time of rethinking of values and goals. In some cultures, identity formation is not a task for the individual. Rather, the goals, values, and life tasks have been established by parents and the social groups. They are expected to follow the pattern set; usually to roles that are related to sex, or gender role, and values.

The term sexual orientation is used to mean people's preferences for the partners with whom they engage in sexual intercourse, or at least those whom they sense as sexually arousing (Thomas, 2001). Over the centuries, the diversity of sex partners has included a) persons of the opposite sex (heterosexuality), b) persons of one's same sex (homosexuality), and c) persons of both sexes (bisexuality). The degree of each type's

acceptability has differed from one culture to another and from one era to another within the same culture. Societies have also distinguished between acceptable and unacceptable sexual partners on the basis of the individuals' social relationship or status. For example, extramarital sex, premarital sex, and coercive sex have not been approved in some societies. Cultures have also differed in the different sorts of sexual acts, parts of the body involved, and equipment used.

Recent theories of sexual orientation have focused on homosexuality and bisexuality. Biological theories assume that a person's homosexual traits are the result of some characteristics of the physical organism, particularly, sex hormones. In contrast, socio-psychologists explain homosexuality as a learned or acquired characteristic, and that quality of an individual's relationships with other people during childhood and adolescence determines whether a person becomes homosexual, heterosexual or bisexual (Thomas, 2001). In 20th century, well-informed theorists agree that biological, psychological, and social-environment factors can be involved.

Sexual activity and sexual satisfaction are important in the maintenance of homosexual relationships. Research conducted prior to the AIDS epidemic showed that gay men have more frequent sex, more sexual variety, and are less sexually exclusive than heterosexual men (James & Murphy, 1998). Since the AIDS epidemic, some homosexual couples are becoming monogamous. However, many gay couples, particularly young gay men, are not practicing safe sex.

Much previous research has concentrated on the phenomenon of sexuality at the individual level. In fact, many facets of human development that has physical, intellectual, moral-spiritual and psychosocial dimensions cannot develop without environmental system influence. In such an interactive model, not only do individuals

adapt to the environment, but the environment positively or adversely impacts development. Adolescence is a social construct in which the self develops through ongoing interaction between individual and social contexts and social groups. The variables at the family and extrafamilial level have been more focused on in recent studies. Many factors were shown to have strongly influenced adolescent sexual behavior.

Family System

Family influences on adolescent sexual activity can be divided into two primary categories: family structure variables and family process variables. Although the latter factors have received more attention than the former category, some family structure variables could play a protective factor role against risky sexual behavior. Family structure variables such as socioeconomic status (SES), single parent or family marital disruption, problematic home situation, parental education, and family connectedness affect children's vulnerability to negative sexual development outcomes (Aalsma, Fortenberry, & Orr, 2002; Libbey, Ireland, & Resnick, 2002; Magnusson, 2001; Slap, Lot, Huang, Daniyam, Zink, & Succop, 2002). Paul, et al (2000) studied the determinants of sexual intercourse before age 16 and found that teenage boys who live in lower SES families were significantly more likely to begin intercourse at an early age. Girls whose mother worked 35 hours or more per week were twice as likely to have intercourse before age 16. There has been a significant association among the mother starting a family before age 20, low family relations index, boys and girls who don't live with biological parents and early age at intercourse for both genders. Dual-parent families who acted as sex role models and the presence of the mother at home were protective factors against

early sexual intercourse (Kotchick, Shaffer, Forehand, & Miller, 2001; Lammers, et al, 2000).

In terms of family processes, parents play an important role in their children's decision making, and it is reasonable to believe that sexual decision making will be facilitated by parental involvement, not only in conveying information, values, and attitudes but also in the manner in which these are presented (Rosenthal, Senserrick, & Feldman, 2001). Throughout the socialization process, parents transmit their own standards of conduct, both directly through their parenting practices and indirectly through their own observable behavior. The family, which includes adolescents, was viewed as more likely to have conflict. A study conducted by Steinberg (2000) revealed that 40% of parents' own experience during their children's transition into adolescence included two or more of the following; lowered self-esteem, diminished life satisfaction, increased anxiety and depression, and frequent rumination. Parents describe adolescence as a relatively more difficult time compared to other periods of the child's development. As a consequence, these difficult situations can be attributed to a major life stress event in both groups. Many studies identified family process variables such as parenting behavior, parental monitoring and supervision, as well as parent-adolescent communication as important sources of influence on adolescent sexual activity.

Lack of parental supervision is a factor that predisposes early onset sexual intercourse. On the contrary, families with strict family rules, and authoritative parenting were more likely to be viewed as protective factors against early sexual initiation (Kirby, 1997; Lammers, et al, 2000; Mott, Fondell, & Hu, 1995; Paikoff, 1995; Steinberg, 2000). Authoritative parenting is characterized as warm and involved, but firm and consistent in establishing and enforcing guidelines, limits, and developmentally appropriate

expectations. The way in which parents encourage and permit adolescents to develop his or her own opinion and belief is called "psychological autonomy granting". This parental type of encouragement affects adolescent mental health, contributing to academic competence, and preventing problem behavior and is a protective factor against early sexual intercourse (Steinberg, 2000). Moreover, this parenting style could promote parent-adolescent relationships and reduce stress in this period of family transition.

In addition to parental behavior, parent-adolescent communication about sex is an essential factor preventing adolescents from sexual risk behavior. In recent studies researchers have been more concerned with the quality of communication. The studies suggest the mother is more likely to be perceived by boys and girls as the primary communicator about sexuality in the family. Both teenage boys and girls are more likely to discuss sexual topics with their mothers than fathers, but teenage boys feel more comfortable discussing sex with fathers than do girls. Most discussions involve topics including STDs/HIV, condom use, and body change such as the menstrual cycle. Adolescents were reported to always discuss the topic of sexual intercourse with friends (Ackard, & Neumark-Sztainer, 2001; DiIorio, Kelley, & Hockenberry-Eaton, 1999; Rosenthal, Senserrick, & Feldman, 2001). It appears that information regarding wet dreams is a topic that was avoided by mothers and fathers. A recent study conducted by Wilson, & Klein (2002) found that teens who reported having had sex were less likely to have had a class in school on "how to say no sex" and were less likely to have talked to a parent. Similarly the findings of Karofsky, Zeng, & Kosorok (2000) indicated that the virginal group had a higher rate of communication with their parents. The most common reasons for abstaining from intercourse were the fear of pregnancy and STDs, feeling that

they were not ready and it was against their own moral values. In addition, one study reported that when sex communication is frequent, parents exhibit positive styles of communication, whereas negative styles of communication were always exhibited by parents who hardly discuss sex with their children (Rosenthal, Senserrick, & Feldman, 2001).

Although there has been strong evidence that parent-adolescent communication about sex is important for protecting against sexual intercourse initiation, it is difficult for some parents and adults to discuss this with their teenage children. Because sex is taboo, they feel embarrassed and uncomfortable talking about the topic, furthermore, they disapprove of young people who express an interest in sexuality (UNESCO, 1998). Some parents tend to focus on negative aspects, like pregnancy and disease prevention, rather than on positive factors such as intimacy, mutual respect and pleasure (Jaccard, Ditus, & Gorden 1996; Yowell, 1997). As a consequence, adolescents try to find other sources of information which often present sensationalized and mixed messages resulting in anxieties and confusion. A 1997 survey found that less than two percent of young people are taught about sexuality at home. Eighty-four percent of American mothers acknowledge needing help in approaching the subject of sexuality with their children (DUREX, 1997). It is suggested that prevention programs on adolescent pregnancy should take family influence into account and should work together with adolescent families (Chih, 2001).

Extrafamilial or Macro System

During adolescence, young boys and girls are in the midst of developing their own identities and establishing more complex social networks. The extrafamilial system or macro system is the reference system that guides adolescents' behavior, which shifts from the family to the social environment (Kotchick, Shaffer, Forehand, & Miller, 2001). Extrafamilial variables that influence adolescent sexual behavior are focused on peer group, school environment, health service, culture and social norms, community connectedness and social change.

Peers become an important factor acting as a source of reinforcement, modeling, and support concerning value and belief systems. Adolescents whose peers are sexually active or who perceive that their friends are sexually active are more likely to be sexually active themselves, whereas those who reported never having had sex demonstrated more positive peer attitudes toward not having sex (Dilorio, et al, 2001; Kotchick, Shaffer, Forehand, & Miller, 2001). In relation to gender and peer influence, females were more likely to morally pressure their friends than their male equivalents, and peer education stems from the belief that well-liked and respected peers may be able to encourage others towards behavior that promotes sexual and reproductive health rather than high risk behavior (MacPhail, & Campbell, 2001). An important aspect is the school environment, including factors such as emotional attainment to the school, and school climate. In relation to school factors as determinants of sexual intercourse, Paul, et al, (2000) founded that getting in trouble at school by age 13 years was strongly associated with early sexual intercourse for both genders. Boys who have had sexual intercourse at age 15 were more than twice as common among those attending a coeducational school, compared to a single-sex school. Lower school connectedness influences adolescent sexual behavior,

especially girl's pregnancy, and can result in emotional distress for males (Libbey, Ireland, & Resnick, 2002; Slap, et al, 2002).

For the broader community, low SES communities were associated with greater sexual risk behavior among adolescents. Teenagers involved in community activities were less likety to engage in sexual behavior than those who didn't. In addition, many studies have also identified other factors associated with adolescents' decisions to have sexual intercourse. They include societal change such as urbanization and modernization, mass media, values and beliefs, and less accessbility to sexual and reproductive health services and information (Kirby, 1997; Miller, 1998; Rwenge, 2000; Tubman, Windle & Windle, 1996). There are some neighborhood and community factors linked to increased teen sexual activity. Communities with high amounts of poverty, a high proportion of women employed full-time, and high residential turnover demonstrated higher rates of teenage pregnancy (Hughes, & Sutton, 1996). Rapid societal change and economic crisis have changed people's lifestyles including family structure and parent-child interaction (Chih, 2001). Although some factors have no direct affect on adolescent sexual risk behavior, they interrelate with and influence family life-style, values and beliefs from which adolescents construct and form their thought as well as behavior.

In conclusion, it is apparent that adolescent development and sexual behavior is related to many factors, not only at the level of the individual, but also family and extrafamilial or macro factors which are interrelated and influence one another. This provides the comprehensive understanding of adolescent sexuality that is necessary for the creation of health prevention and promotion programs in the future. Adolescent sexual behavior varies according to different societies and cultures; therefore the above factors cannot be explained for all societies. Most of the studies referred to were

conducted within various contexts in western societies and with people from different races and ethnic backgrounds which may differ from those from Asian societies, including Thailand.

Adolescent Sexual and Reproductive Health

Gender, reproductive rights, and values were not considered in the definition of reproductive health before 1994. The term sexual and reproductive health encompasses a set of health problems or diseases associated with the physical and social risks of human sexuality and reproduction (Aitken & Reichenbach, 1994), Sexuality and reproductive health emphasizes the social, economic and biological health (Malkin, 2001). The UN International Conference on Population and Development (ICPD) defined reproductive health as the state in which all women, men, and adolescents can regulate their own fertility safely and effectively by conceiving and having wanted pregnancies while remaining free of diseases, disability or death associated with reproduction and sexuality, and to bear and raise children to health (Germain & Ordway 1989 cited in Hardon 1995).

Most recently, the scope for defining reproductive health is broadening. The ICPD has now defined reproductive health as a state of complete physical, mental, and social well-being and not merely the absence of disease and infirmity in all matters relating to the reproductive system and to its function and processes. It implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so (UN, 1994 cited in Hardon, 1995). Moreover, it concerns the rights of men and women to be informed and to have access to safe, effective, affordable, and acceptable methods of family planning of their choice. Reproductive health also includes methods for regulation of fertility, which

are not against the law, and the right of access to appropriate health care services that will enable a woman to go safely through pregnancy and childbirth, and provide couples with the best chance of having a healthy infant.

Sexual and Reproductive rights is an issue of concern in the Post-Cairo era. In 1995,the International Planned Parenthood Federation (IPPF) and its 127 member associations approved a charter on sexual and reproductive rights, based on international human rights instruments. There are 12 rights (IPPF, 1997); a summary follows:

1. The right to life should be invoked to protect women whose lives are currently endangered by pregnancy
2. The right to liberty and security of the person should be invoked to protect women currently at risk from genital mutilation, or subject to forced pregnancy, sterilization or abortion
3. The right to equality and to be free from all forms of discrimination should be invoked to protect the rights of all people, regardless of race, color, sex, sexual orientation, marital status, family position, age, language, religion, political or other opinion, national or social origin, property, birth or other status, to equal access to information, education and services related to development, and to sexual and reproductive health
4. The right to privacy should be invoked to protect the right of all clients of sexual and reproductive health care information, education and services to a degree of privacy, and to confidentiality with regard to personal information given to service providers
5. The right to freedom of thought should be invoked to protect the right of all persons to access education and information related to their sexual and

reproductive health free from restrictions on grounds of thought, conscience and religion

6. The right to information and education should be invoked to protect the right of all persons to access full information on the benefits, risks and effectiveness of all methods of fertility regulation, so that any decisions they take on such matters are made with full, free and informed consent
7. The right to choose whether or not to marry and to find and plan a family should be invoked to protect all persons against entering marriage without the full, free and informed consent of both partners
8. The right to decide whether or when to have children should be invoked to protect the right of all persons to reproductive health care services which offer the widest possible range of safe, effective and acceptable methods of fertility regulation, and are accessible, affordable, acceptable and convenient to all users
9. The right to health care and health protection should be invoked to protect the rights of all persons to the highest possible quality of health care, and the right to be free from traditional practices which are harmful to health
10. The right to the benefits of scientific progress should be invoked to protect the rights of all persons to access available reproductive health care technology which independent studies have shown to have an acceptable risk/benefit profile, and where to withhold such technology would have harmful effects on health and well-being

11. The right to freedom of assembly and political participation should be invoked to protect the right to form an association which aims to promote sexual and reproductive health and rights
12. The right to be free of torture and ill treatment should be invoked to protect children, women, and men from all forms of sexual violence, exploitation and abuse. Later SIECUS (1996) proposed the sexual rights specific to teenagers. The rights were composed of
    1) The right to accurate information about sexuality and HIV/AIDS
    2) The right to stop being physical or sexual with the partner at any point
    3) The right to say no to any kind of an unwanted touch
    4) The right to make decisions about sexuality, in one's own time
    5) The right to express your sexuality safely, without risk of pregnancy, or STDs including HIV/AIDs
    6) The right not to be pressured into being physical or sexual
    7) The right not to express your sexuality unless one wants to

Reproductive health (RH) care is also defined as the constellation of methods, techniques and services that contribute to RH and well being by preventing and solving RH problems. It also includes sexual health. Actually, a universal definition of sexual health is difficult to arrive at because human sexuality is varied, diverse, and dynamic. Gender awareness, gender, gender roles and gender inequalities, are considered to be important factors that affect fertility and sexual health (UNFPA, 2000). Sexual health was defined as early as 1975 and revised in 1999 by WHO as the integration of the somatic, emotional, intellectual, and social aspects of sexual beings in ways that are

positively enriching and that enhance personality, communication and love. Later, the ICPD report added that the purpose of sexual health care should be the enhancement of life and personal relationships, not only counseling and care related to reproduction and STDs (UN 1994 cited in Hardon,1995). Human sexuality and gender relations are closely interrelated and affect the ability of men and women to achieve and maintain sexual health and manage their reproductive lives.

The ICPD definitions may need to be expanded to address the particular realities of adolescents. For example The National Commission on Adolescent Sexual Health in the U.S identified the characteristics and behaviors of a sexually healthy adolescent as follows (Haffner, 1995).

Table 1: Characteristics and behaviors of a sexually healthy adolescent (Haffner, 1995).

Type of Relationships	Characteristics and behaviors
1 . Self	1.1 Appreciates own body - understands puberty changes - views puberty changes as normal - practices health-promoting behaviors, such as abstinence from alcohol and other drugs and undergoing regular check-up 1.2 Takes responsibility for own behaviors - identifies own values - decides what is personally "right" and acts on these values

Type of Relationships	Characteristics and behaviors
	- understands the consequence of actions - understands that media messages can create unrealistic expectations related to sexuality and intimate relationships - is able to distinguish personal desire from the peer group - understands how alcohol and other drugs can impair decision making - recognizes behaviors that may be self-destructive and can seek help 1.3 Be knowledgeable about sexuality issues - Enjoys sexual feelings without necessarily acting upon them - Understands the consequence of sexual behaviors - Makes personal decisions about masturbation consistent with personal values - Makes personal decisions about sexual behavior with a partner - Understands the effect of gender role stereotypes and make choices about appropriate roles of oneself - Understands own sexual orientation

Type of Relationships	Characteristics and behaviors
	- Seek further information about sexuality as needed - Understands peer and cultural pressure to become sexually involved - Accepts people with different values and experience
2. with parents and family members	2.1 Communicates effectively with family about issues, including sexuality - maintains appropriate balance between family roles and responsibilities and growing need for independence
3. with peers	3.1 Interacts with both genders in appropriate and respectful ways - communicates effectively with friends - has friendships with males and females - is able to form empathetic relationships - is able to identify and avoid exploitative relationships - understands and rejects sexual harassment - respects others' right to privacy respects other's confidences - is able to negotiate with family on boundaries

Type of Relationships	Characteristics and behaviors
	- respects the rights of others, demonstrate respect for adults - understands and seeks information about parents' and family's values, and considers them in developing one's own values - ask questions of parents and other trusted adults about sexual issues - can accept trusted adults' guidance about sexuality issues and tries to understand parental point of view 3.1 Acts on one's own values and beliefs when they conflict with peers - understands pressures to be popular and accepted and makes decisions consistent with own values
4. with romantic partners	4.1 Expresses love and intimacy in developmentally appropriate ways - believes that boys or girls have equal rights and responsibilities for love and sexual relationships - communicates desires not to engage in sexual behaviors and accepts refusals to engage in sexual behaviors

Type of Relationships	Characteristics and behaviors
	- seeks to understand and empathize with partner 4.2 Has the skills to evaluate readiness for mature sexual relationships - talks with a partner about sexual behaviors before they occur - is able to communicate and negotiate sexual limits - differentiates between low and high-risk sexual behaviors - together with a partner, makes sexual decisions and plans behaviors - if having sexual intercourse, protects self and partner from unintended pregnancy and diseases - knows how to use and access the health care system, community agencies, religious institutions, and schools; and seek advice, information, and services as needed

The characteristics of sexually healthy adolescents above did not mention sexual and reproductive rights. The rights issue should be added to complement the complete definition as stated by the ICPD.

Sexual and Reproductive Health Education Programs

Sexual and reproductive health education is an educational experience aimed at developing the capacity of adolescents' behavior in the context of biological, psychological, socio-cultural and reproductive dimensions and to acquire skills in making responsible decisions about action affecting their sexual and reproductive health. The most comprehensive sexual and reproductive health education programs cover the biology and anatomy of reproduction and sex, and provide young people with information about dating, boy-girl relationships, marriage and contraception. This helps adolescents develop the skills that are necessary to resist both peer pressure and inappropriate sexual involvement, and to attain the maturity required for making responsible decisions about one's own sexual behavior.

In the past, population education and sexuality education programs focused on the biology of reproduction. Male and female physiology and reproduction were explained with little reference to the social-emotional issues and the culture. Teaching approaches focused on traditional lecture style, focusing exclusively on pregnancy and disease aspects of sexual activity. These caused a numbers of gaps where adolescents had no outlet to explore information within the complexities of their reproductive, sexual, social and emotional development (UNESCO PROAP, 1998). Sexual and reproductive health is a gender issue. It is affected by societal norms and value systems that indicate ideal behaviors for men and women and which determine their different social roles, statuses, and identities. Thus contemporary sexual and reproductive health education aims to redress key elements or features to understand attitudes and behaviors of adolescents in the context of social structures and value systems, and develop necessary skills through participatory approaches (UNESCO, 2001).

Gender roles begin at birth and span a lifetime and affect one's sexuality and reproductive behavior. At a very young age boys and girls learn from their families and peers how they are expected to act around people of the same sex and opposite sex. Gender is consistently related to intentions to engage in sexual activity, manage sexual desire, use of contraception, perceptions of peers' sexual activity and peer pressure (Thomas, DiCenso, & Griffith, 1998; Tolman, 1994). The main component of this traditional ideology is the assumption that there is a "double standard" which allows men greater sexual freedom, especially before marriage, and places strict limits on the sexual activity of women. Girls are taught that a good woman remains a virgin until marriage and continues to be emotionally and sexually faithful to her husband afterwards (Archavanitul, & Havanon, 1990). As a consequence, young men have few responsibilities and much freedom, including increased sexual experience, while young women have much less social freedom,and find it difficult to acknowledge their sexual feeling (Tantiwiramanond, 1996).

Thai men are widely perceived as having a natural and driving need for sex that requires frequent outlet. In contrast, women are viewed as being in control of their sexual feelings, which are seen to be far less pronounced than those of men. Boys and girls view sex differently. Girls are taught to be a good woman by remaining a virgin until marriage and are not supposed to be sexual outside of their marriage. They are taught what it means to be a *kulasatrii* (กุลสตรี). Historically, the Thai tradition has defined a *kulasatrii* (virtuous woman) as proficient and sophisticated in household duties; graceful, pleasant, unassuming in her appearance and social manners, and conservative in her sexuality. Most contemporary Thai women regard being view as a kulasatrii a sign of dignity and honor (Taywaditep, Coleman, & Dumronggittigule, 2002). Girls are trained more strictly

than boys in their behavior and gender roles, and for boys sexual activity is accepted or even encouraged. Sex relations are viewed as being to their advantage; men have little to lose. (Knodel, VanLandingham, Saengtienchai, & Pramualratana,1996). The Thai male image is represented by the notion of *chasi chaatrii (ชายชาตรี)*, which is an embodiment of the typical masculine features such as authority, courage, self-assurance, physical and emotional strengths, and sexual prowess. Regarding adolescents, Thai fathers are known for being particularly protective and possessive of their daughters, exercising greater control over their friendships with teenage boys. This double standard in sexual practices may have culminated into an undercurrent of tension between genders.

Regarding the gender issue, it was suggested in a study by the UNFPA that sexual and reproductive health education programs need to provide different information for boys and girls. Program need to be directed at adults so that they do not prevent their kids from practicing sexual responsibility by limiting their access to information. Parents also need to examine their own assumptions about gender and sexuality and decide whether these are the values they wish their children to have (UNFPA, 2000).

WHO has proposed a list of suggested topics for sexual and reproductive health programs as follows.

Table 2: The suggested topics for major sexual and reproductive health concerns (UNESCO PROAP, 1998)

Topic	Contents
1. Human and Sexual Development	- Reproductive anatomy and physiology - Conception, pregnancy and births - Puberty and physical, psychological, socio-cultural changes - Body image, self-awareness, and self-esteem - Sexual identity and orientation (gender issues, homosexuality
2. Relationships	- Personal, family and community values and relationships - Relationships with others (friends, boy-girl relationships, love, dating, etc.)
3. Sexual behavior	- Pre-marital sex and marriage - Parenting, and responsible parenthood - gender issues and stereotyping sexuality and sexual behavior - Reducing sexual risks - Masturbation - Abstinence - Human sexual response - Sexual dysfunction

Topic	Contents
	- Sexuality orientations, esp. homosexuality
4. Reproductive health	- Adolescent pregnancies
	- Abortion
	- STD, HIV/AIDS
	- Reproductive tract infection
	- Sexual abuse and violence
	- contraception
5. Personal and life skills	- Values
	- Assertiveness
	- Communicating skills
	- Setting goals in life
	- Decision-making
	- Negotiation
	- Career planning and preparing for the world of work
	sexuality and society
6. Society and Culture	- Gender roles and stereotypes
	- Sexuality and the media
	- Sexuality and the law, including reproductive rights
	- Sexuality and religion
	- Sexuality and the arts

Research Studies Related to Sexual and Reproductive Health Education

Regardless of its form and emphasis, sexual and reproductive health education has been controversial. Many have feared that it might encourage sexual activity among young people who are not sexually active, and increase levels of risk-taking among those who are sexually experienced. Arguments have raged over how much explicit educational material there should be, how often it should be given, and at what age to initiate education. There is evidence that well-designed programs for sexual and reproductive health education can delay the onset of sexual activity, reduce the number of sexual partners and reduce unplanned pregnancy and HIV/STD rates (Smith, Kippax & Aggleton, 2000). Many articles discuss the features of successful sex education programs. For example, Kirby (1995), as cited in UNAIDS (1997, P.23), reported that the following features were common characteristics of programs that successfully achieved delays in first intercourse, and increased the use of contraception or condoms. The nine features identified in his 1995 review of 50 studies of interventions with young people below the age of 19 years are summarized below:

1. Theories of behavior underpinned the intervention e.g. social influence theory, social learning theory or cognitive-behavioral theory
2. The programs focused on the specific aims of delayed intercourse and protected intercourse
3. The interventions were at least 14 hours in length or there was work in small groups to optimize the use of time in shorter programs
4. A range of interactive activities such as role-playing, discussion, and brain-storming were employed such that participants personalized the risks and were actively involved in the process of developing strategies

5. Clear statements were given about the outcomes of unprotected sex and how those outcomes could be avoided
6. The social influences of peers and the media to have sex or unprotected sex were identified and strategies to respond to and deal with such pressures were generated
7. There was clear reinforcement of values supporting the aims of the programs and development of group norms against unprotected sex relevant to the age and experiences of the participants
8. Programs included activities that allowed the participants to observe in others, and rehearse themselves, communication and negotiation skills, yielding greater effectiveness in achieving delays in the initiation of intercourse or protected sex
9. There was effective training for those leading intervention

Currently, there are two distinct kinds of sexuality education programs: abstinence-only, where abstinence until marriage is the only acceptable behavior, focuses primarily on the negative consequences of premarital sex, and abstinence-plus program which encourages abstinence as the most effective form of pregnancy and disease prevention, including contraceptive information and skill-building to resist peer pressures. In a review of 35 programs from around the world, the World Health Organization found that programs which teach only abstinence were less effective than programs that promote the delay of sexual intercourse and teach about safer sex practice (Baldo, Agglefon, & Slutkin, 1993).

Kelly (1995) found that education programs appear to have greater impact if they are given prior to the onset of sexual activity. It has been suggested that it may be easier to establish the desired patterns of behavior from the beginning of sexual involvement, rather than trying to change pre-existing habits.

Steven (1997) found that programs for youth, which are developed through partnership of youth and adults, may be highly effective in building young people's skills and reducing their sexual risk-taking behaviors. Power dynamics between young people and adults should be a focus of program development. However in Thailand, cultural norms may make it difficult for young people and adults to feel comfortable working together. In Thai society the norm of "following adults" means accepting what adults or superiors say or suggest without argument or resistance. As a result of this norm, it may be difficult to create an atmosphere of complete partnerships. The National 4-14 Council (1997) developed the "Spectrum of Attitudes" theory and identified three different attitudes that adults hold toward young people. These attitudes represent 1) youth as objects: adults believe that young people make little contribution; 2) Youth as recipients: adults permit young people to take part in making decisions because they think the experience will be good for them and assume that youth are not real people and need practice to learn to think like adults; 3) Youth as partners: adults encourage youth to become involved and accept youth as having an equal voice in decisions. The third attitude may be idealistic; however, it is critical to a program's success when compared to other attitudes.

Davis (1999) stated one of the important features in programs is that they should foster youth empowerment and offer culturally competent programs in the community. Peer education and youth leadership will support youth empowerment and

encourage adolescents to take responsibility for their own reproductive and sexual lives and to envision their future.

Existing Sexuality Education Curriculum

An effective sexual and reproductive health curriculum should increase knowledge, develop skills and focus on changing the attitudes of the client group. The existing curricula have been organized into two categories 1) Sex Education and 2) School-Based HIV/AIDS Education. The best sexuality education curricula offer opportunities for adolescents to clarify their beliefs, build values, and acquire skill in negotiation, compromise, assertiveness, and accessing services (Kirby, 1997). The programs presented below have been evaluated and show promising results.

Sex Education

Reducing the risk (RTR), a high school curriculum, emphasizes avoiding unprotected intercourse by practicing abstinence or by using contraception. Through role playing, participants learn to recognize and resist peer pressure, make decisions, and negotiate safe sexual behaviors. Students are encouraged to talk to their parents about abstinence and birth control and to visit stores and clinics to learn about birth control. Evaluated in 13 California schools, RTR has shown increased student knowledge about reproduction, contraception, and sexually transmitted disease and also increased parent-child discussions (Howard & McCabe, 1990). RTR also has been shown to delay sexual activity and increase contraceptive use by 40 percent among youth who have not started having sex, live with both parents, drink alcohol infrequently, and/or receive grades of "c" or better (Kirby, Barth & Leland, 1991).

Postponing sexual involvement (PSI) uses older teen educators, nurses and counselors to stress the importance of sexual abstinence among younger teens. Teaching decision making and negotiation skills, PSI uses role playing to help participants recognize and develop responses to peer pressure. In the Georgia evaluation, PSI was followed with a human sexuality course which also included a contraception unit. Evaluation has shown participants to be five times less likely than control groups to initiate sex by the end of eighth grade (Miller, 1992) and among those who become sexually active, to be more likely to use contraception (Howard & McCabe, 1990). These results were achieved in the full PSI program including the human sexuality unit. The evaluation of California's Education Now and Babies Later (ENABL), a program modeled on PSI but lacking a unit on human sexuality and contraception, has found no changes with respect to sexual or contraceptive behavior (Helen, Cagampang, Richard, Barth, Korpi & Kirby, 1997).

Teen Talk is designed to use in schools or by community organizations. Teen talk aims to increase awareness of the possibility of pregnancy, the negative consequences of teenage parenthood, and the benefits of delayed sexual intercourse or consistent contraceptive use. Teen talk also aims to decrease teen perceptions of barriers to abstinence and effective contraceptive use. While leaders provide information, group activities personalize these facts and stimulate discussion about values, feelings, decision making, and responsibility. This program has shown increased and more efficient contraceptive use among most males, as well as more sustained abstinence among males when compared to control groups. However, the findings varied by ethnicity (Hoffman, 1997).

Girl Incorporated, Preventing Adolescent Pregnancy works to reduce risky sexual behavior. A four-part program for young women, aged 12-17, it combines sexuality education with communication skills-building and health services. The "Will Power/Won't power" program helps 12 to 14 year-olds recognize peer pressure and build assertiveness skills. The "Growing Together" program fosters positive communication about sexuality and values between 12 to 14 year-olds and their parents. The "Taking Care of Business" program increases motivation and skills to avoid pregnancy through education and career planning in 15-17 year-olds. Health Bridge uses ideas from these programs and links these programs to community reproductive health services. Evaluation has shown that although no program has significant results alone, participants in two or more programs are less likely than non-participants to become pregnant (Miller, 1992).

Teen Outreach Program (TOP) combines a school-based curriculum with community service. In class, participants work in small groups with a facilitator/mentor, discussing values, human growth and development, and relationships while learning communication skills and decision making. Service projects take students into their communities. The combination of sexuality education and community service empowers young people to succeed. Evaluation has found that participants fail fewer courses, are less likely to drop out of school, have lower pregnancy rates, and are suspended less often than control students.

School-based HIV/AIDS education

While education about HIV and other sexually transmitted diseases is usually included in sexuality education curricula, some programs such as the following, focus exclusively on preventing STDs.

Be Proud, Be Responsible: this intervention aims to improve the knowledge and attitudes toward HIV/AIDS among male adolescents. Through group discussion, participants learn the risks of injected drug use and unsafe sexual behaviors. Videos, role playing, games, and exercises reinforce learning and encourage participants. The participants have shown improved knowledge of HIV/AIDS, less favorable attitudes towards risky behavior, and lower intentions to engage in those behaviors. In follow-up, the participants report fewer acts of sexual intercourse, fewer partners, greater use of condoms, and less heterosexual and homosexual intercourse, compared to controls (Jemmott, Jemmott & Fong, 1992)

Becoming a Responsible Teen (BART) has been field-tested successfully as an HIV-intervention for several groups, including substance dependent adolescents and African-American adolescents. Group discussion focuses on risk reduction, communication, negotiation, refusal skills, problem solving, and condom use. Interactive sessions include games, role playing, and videos. BART's primary focus is increasing safe sex behavior among sexually active teenagers. Evaluation has shown BART to increase use of condoms during intercourse and decrease numbers of sexual partners. Participants also show increased HIV knowledge, more favorable views on prevention and condom usage, and more recognition of personal vulnerability to HIV (Jemmott, Jemmott & Fong, 1992; Haffner, 1997).

AIDS Prevention for adolescents in school: this curriculum seeks to increase urban high school knowledge of HIV/AIDS, build skills to recognize and prevent behaviors that put them at risk for HIV infection, and promote healthy decision making. The curriculum emphasizes consistent condom use. Role-playing enhances students' confidence and ability to avoid high-risk situations. Evaluation has shown the participants score higher on knowledge of HIV transmission and the benefits of risk reduction as well as on measures of self-efficacy compared to controls. In follow-up, participants report fewer sexual partners and increased levels of condom usage compared to controls (Jemmott, Jemmott & Fong, 1992).

In conclusion, the programs described above are designed to impart knowledge, explore attitudes and develop the skills necessary for adolescents to change their behavior. Programs that have been found effective had the following components:

- Provide information about both abstinence and contraception
- Are based on theory that emphasizes skill building
- Focus on active learning through experimental activities
- Acknowledge social and media influences on behavior
- Contain information and activities that were age and gender appropriate
- Assure that their messages are culturally appropriate
- Explore personal messages
- Include training for those implementing the program

Successful interventions may not include all these components. They may include other components such as community service, and may address additional topics such as gender roles or homosexual issues. Successful programs will not reduce unsafe sexual activity in every situation nor prevent adolescent pregnancy and sexually

transmitted disease transmission in every individual or community. But by building up on what is effective, we can create programs to help all adolescents become sexually healthy adults (Hoffman, 1997).

Sexual and Reproductive Health Education in Thailand

Historically, the Ministry of Education issued a directive to teach sex education within the subject of "Enhancing Life experiences" in primary schools and in "Health Education" in secondary schools as well as integrating it into other subjects, though there still was debate as to whether sex education should be a separate subject. In 1998, the Department of Curriculum and Instruction, together with the Department of Mental Health and the Department of Health, under the Ministry of Public Health, has developed a framework for basic education curricula and incorporated "Guidelines for education on the subject of life and family education" to cover the compulsory education of 12 years. In Thailand, sexual and reproductive health education is known as "Life and Family Education" (Ministry of Education, 2001). It is interesting to note that the Department of Education still avoids using the term "sex education" officially. In the newly reformed curriculum, however, "Life and Family Education" will be integrated into the new subject area of Health and Physical Education and will cover grades 1-12.

The framework for the curricula covers six core areas of Life and Family Education (Department of Health and Department of Mental Health, 2000):

1. Human Sexual Development
    - Physiology and the reproductive system
    - Adolescence
    - Secondary sexual characteristics

2. Relationships
   - Family relationships
   - Friendship
   - Love
   - Marriage and life spans
3. Sexual behavior
   - Sexual expressions
   - Sexual relations
   - Sexual abnormality
4. Sexual Health
   - Reproductive health
   - STDs , HIV/AIDS
   - Sexual abuse
   - Birth control
5. Society and culture & Personal skills
   - Values
   - Refusal/negotiation
   - Decision making
   - Assertiveness
   - Problem Solving
   - Requesting help

6. Sex roles
   - Sexual values
   - Gender roles
   - Sexuality and media

Besides formal education, some organizations for example, Program for Appropriate Technology in Health (PATH) and Siam-Care organization, provide informal education for various groups of teenagers as extra-curricula activities. PATH has developed "Step Forward with Understanding" a sexuality education curriculum for two different age groups consisting of 14-session activities. One is the Guidance subject for Mattayom 2 students (grade 8) in 30 schools in Bangkok, and aims to develop school sex education curricula by promoting collaboration among administrators, teachers, and NGOs with Siam-Care as the key responsible implementing agency. The other curriculum "Teens on Smart Sex" was developed as part of the operation research project "Programming for HIV Prevention in Thai schools" is program was conducted once a week for 1,200 college students aged 18-19 who were 2nd year students. It is noteworthy that before using either curriculum, PATH organized a three-day training session for teachers and lecturers. However, while these programs only targeted students, the Ministry of Education suggested that two groups who should be included as targets of a sexual and reproductive health education program are the core group (students and out-of-school youths) and the supporting groups (teachers, parents, community members, community groups, and the mass media). It also suggested that the following areas should be emphasized in the action plans of schools and educational institutions (The Office of Special Activities, Ministry of Education, 1996):

- Life-skills training programs
- Participatory teaching/learning practices
- Awareness and knowledge training for teachers, education personnel, peer leaders and trainers
- Revision of existing curricula
- Development of teaching/learning materials and life-skills training modules
- Improving the general teaching environment within schools
- Disseminating useful information to local communities
- Promotion cooperation between schools and community groups
- Coordinated responses between all concerned groups

However, all the suggested features could not be implemented. The key stakeholders never had a chance to take a role in developing the existing SRH education programs. Despite the fact that their input is necessary to create a SRH program which meets their needs and provides a practical way for health care provider and teachers to give sexual and reproductive health education in school settings. As a result, a sexual and reproduction health education program which addresses this needs to be developed, and a participatory approach is suggested.

Theoretical Framework

This section presents the theoretical framework for the proposed study. The study will use critical social theory (CST) as a guide to explore perceived needs of early adolescents, their parents and teachers. Critical social theory evolved in Germany during the early 1920s (Campell & Bunting, 1999). In keeping with its Marxist roots, from its inception critical social theory maintained that knowledge should be used for

emancipatory political aims. A critical theory is a reflective theory that gives a kind of knowledge inherently productive of enlightenment and emancipation. The goal of critical theory is to nullify the effects of ideology so that the agents' perceptions are freed or emancipated to evaluate their true situation. Because perceptions are greatly influenced by past experience and culture, the epistemology of critical social theory maintains that the standards of truth or evidence are always social, and that social life itself is structured by meaning (Habermas, 1987).

CST interprets all meaning and all truth within the context of history. History includes the time and other occurrences that contribute to the significance of individual events. Therefore understanding patterns of human behavior involves an understanding of societal structures. According to critical theory, societal structures and communication processes shape personal meanings. In the critical theory paradigm, knowledge is not discoverable or universal but is created, and its creation and interpretation are grounded in language. Habermas specified a comprehensive approach to the previously competing social paradigms of the system (structural-functionalism) and the lifeworld (interpretive sociology) by connecting them to formulate the *"theory of rational communicative action"* (Ray, 1992).

Habermas differentiates three primary generic cognitive areas in which human interest generates knowledge. They are termed "knowledge constitutive" meaning that they determine the mode of discovering knowledge and whether knowledge claims can be warranted. Three areas define cognitive interests or learning domains, and are grounded in different aspects of social existence. Three non-reducible cognitive areas are technical or work knowledge, practical knowledge, and emancipatory knowledge. Each type of

knowledge has its own distinctive corresponding type of discourse in relation to its form of inquiry: functionalist, interpretive, and "assertoric" respectively (Habermas, 1987).

Technical or work knowledge broadly refers to the way one controls and manipulates one's environment. This is commonly known as instrumental action--knowledge is based upon empirical investigation and governed by technical rules. The empirical-analytic sciences using hypothetical-deductive theories characterize this domain.

Practical knowledge is highlighted in the phenomenologic-hermeneutic disciplines wherein the aim of inquiry or criterion of clarification gained from the conditions for communication and intersubjectivity (the understanding of meaning rather than causality) is used to determine what appropriate action is. The Practical domain identifies human social interaction or *'communicative action'*. Social knowledge is governed by binding consensual norms, which define reciprocal expectations about behavior between individuals. Social norms can be related to empirical or analytical propositions, but their validity is grounded *'only in the intersubjectivity of the mutual understanding of intentions'*.

Emancipatory knowledge, the approach of a critically oriented science, sets forth the claim that concepts related to control or concepts of the meaning and understanding cannot make sense unless there is rational evaluation made by participants in community life. Rationality is not only in itself but for itself. The Emancipatory domain identifies *'self-knowledge'* or self-reflection. This involves *'interest in the way one's history and biography has expressed itself in the way one sees oneself, one's roles and social expectations. Emancipation is from libidinal, institutional or environmental forces which limit our options and rational control over our lives but have been taken for granted as*

beyond human control. Insights gained through critical self-awareness are emancipatory in the sense that at least one can recognize the correct reasons for his or her problems'. Knowledge is gained by self-emancipation through reflection leading to a transformed consciousness or *'perspective transformation'.*

As a theoretical and philosophical orientation to science, critical social theory (CST) is increasingly used in nursing inquiry, theory, and practice to address oppressive socio-political conditions influencing health and health care. It helps to explore phenomena by judging the contextual effects of power, knowledge and values (Manias & Street, 2000). In this study, I selected emancipatory knowledge in critical social theory as the theoretical framework because I want to identify young teens' and adults' needs for sexual and reproductive health education programs, raise their awareness and learn from them through the self-reflection process. I aim to examine the way young Thai teens see themselves and to empower them for protecting themselves, voicing their needs, and protecting their rights through a process of working with adults to enhance their sexual and reproductive health. In doing this, they will overcome the institutional or environmental forces, which limit their options and gain rational control over their lives. Insights gained through emancipating the critical self-awareness of young Thai teens and adults would help them recognize the correct reasons for their problems. The knowledge that I will gain from Thai young teens will be attained by self-emancipation through reflection leading to a transformed consciousness or *'perspective transformation'.*