CHAPTER II

LITERATURE REVIEW

2.1 Introduction

In this Chapter, the previous studies related to sexual attitudes and behavior of the unmarried youth were reviewed to gain better understanding in the area of youth sexual attitudes and behaviors and to explore the protective factors of high-risk sexual behavior among this group of adolescents. In addition, this literature review provided understanding why youth make decision about their sexuality, the behaviors they engage in, and the values and attitudes they hold.

Firstly, the area of sexual attitudes and behaviors were reviewed in-depth, particularly gender difference between male and female youth. Then the factors affecting sexual attitudes and behaviors were explored, especially the factors that were emphasized in the conceptual framework. Lastly, the family context and process variables were examined in-depth and how these factors influence on the sexual attitudes and behaviors in order to gain better understanding of the complexity of pathways of sexual attitudes and behaviors of unmarried youth.

The relevant studies and theories were also examined within the Lao context as well as internationally. Due to limitation of the Lao literature and published papers on the youth's sexual attitudes and behaviors, the literature review focused on both developing and developed countries.

2.2 Concept of Youth

Use and meanings of the terms 'young people', 'youth', and 'adolescents' vary in different societies around the world, depending on political, economic and socio-cultural context. The World Health Organization has defined adolescents as persons in the 10-19 years age group, while youth has been defined as the age group 15-24 years

old. Young people cover the age range 10-24 years (WHO, 1989). However, for the purpose of this study, the word "youth" is defined as young people at age group from 18 to 24 years old, which are referred to the late adolescents, as youth at this age group are more sexually active than the other groups.

2.3 Young Population

The populations in the age group 15-24 years old experience a remarkable change during the period 200-2025. Nearly half of all people are under the age of 25-the largest youth generation in history. There are 1.2 billion adolescents and 1.7 billion young people in the world today. Some 1.4 billion young people live in the developing countries. Young people comprises of over-one quarter of the world's population (UNDP/ UNFPA/ WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction, 2002). Their total number is projected to increase to 1.2 billion by 2025 and 1.3 billion by 2050, with the proportion in the developing world remaining approximately the same. (Population Resource Center, 2004).

Not only are there a great many young people in the developing world, but they represent a very large proportion of the total population. Almost a third of the population is below age 15 in both Asia and Latin America, 30 and 32 percent respectively. This is a decline from 43 and 36 percent in 1995. In 2001, 30 percent of the world's population was between the ages of 15 and 24. Although the proportion of this age group is expected to decline, the net of young adults will grow from 914 million to 1.13 billion in 2025. (Population Resource Center, 2004).

Lao PDR's population is disproportionately young; with one third of the Lao population comprises the "Xao Noom" or young people of ages 10-24. It was estimated that this young population has been increasing fast through the year and is projected to reach 1.88 million by 2020. There are slightly more females (51 percent) than males among the adolescents. The median age has risen slightly from 17 years to 18 years. Adolescents aged 15-24 years old consist of 17 percent of the total population. One third of females aged 15-24 years are married, which is higher than for males of the

same age (National Statistical Center, 2001; UNESCO, 2004). As the literature showed that the young people are the important population in the world, which make one-fifth of the global population as well as in the Lao PDR, youth consisted of more than one third of the total population.

2.4 Youth as a Special Group

2.4.1 Period of Adolescence

World Health Organization gives three characteristics of adolescence such as 1) physical and sexual development; 2) intellectual development; passage from childhood to adulthood and 3) social and economic development (WHO, 1989).

Generally, the development of adolescents is classified into five components, namely (1) physical development, including primary and secondary sex change; (2) intellectual development; (3) emotional development; (4) social development; and (5) moral development (Steingberg, 1993). According to this development, adolescents have their specific characteristics such as independence, identity, intimacy, integrity, and intellect. Independence means that adolescents want to become less dependent from parents and they move from parents to peers or to build systems in order to achieve independence. This change is strong and might cause rebellion. Identity connotes that adolescents struggle to define themselves and what they want to achieve. This process involves experimenting. Adolescents need to develop their gender role and identity, a positive body image, and a sense of esteem and competence. Intimacy is referred to a time of preparation of love and affection. They are developing capacity to love and to be loved and to be intimated in relations with others. With integrity is meant that adolescents develop a foundation for strong out values. Parents provided a foundation for this. Nevertheless, there are a lot of sources of information such as peers, media, school, etc. and they have to decide what to believe to and how to behave. Lastly, intellect capacity is increasing and changing from concrete thinking to include abstract thinking (Steingberg, 1993).

Some authors divided the period of adolescence into three stages. These are: (1) early adolescence – 11-14 years old, (2) middle adolescence- 15-17 years old, and (3) late

adolescence- 18-21 years old (Stang & Story, 2005). The age of this study population is in the age group 18-24 which is under the category late adolescence. It is a period of turning point of becoming adults, beginning to have a close intimacy with peers with different sexes.

Adolescence is the first period in the life course when peers and mass media explicitly support variation from conventional expectations of adults. This transitional character of adolescents makes them differently from other periods in the life course, more vulnerable to various forms of risk taking, including sexual activity that is often joined with limited knowledge and skills on how to make healthy choices (Youn, 1996). Senderowitz (1997) defined the adolescence period as a time of transition from childhood to adulthood and is marked by reproductive maturity and accompanying socio-economic privileges and responsibilities. This period is characterized by expanded education, the need for more extensive vocational training, increasing work aspirations and the recognition that adolescent development deserves investment and special treatment, initiate sexual relations, marry or even have a child. Adolescence is a complex concept that takes into account social differentiation, the role of the family and other institutions, and issues regarding gender and regional and ethnic descent (Luisa Ruda de Belmonte et al., 2000).

The meaning of adolescence as a cultural construct provides us a better understanding in different ways and different societies. In developing countries, the period of adolescence is not often acknowledged as important, and it is characterized by relatively sudden transition from childhood to adulthood (Fabrega & Miller, 1995). This period corresponds with phases in physical, social and psychological changes and vulnerability to health problems remains largely unexplored in developing countries (WHO, 1995). The nature and experience of adolescence vary tremendously by gender, marital status, class, region and cultural context. However, adolescents, as a special group having sexual and reproductive health needs that differs from adults, are still poorly understood, particularly in developing countries.

Approximately 1.2 billion of adolescents are passing into the adulthood in a changing world. Their preparedness in terms of their education, health status, and all support receiving from family and communities will determine their future. Helping children as they passed to adulthood is never the responsibility of parents alone. In a traditional society, the family, the community and respected local authority help in the transition period. But, in all developing countries the certainties of rural tradition are giving way to urban life, with its opportunities and risks, its individual freedoms and its more complex social demands and supports (UNFPA, 2003).

Based on the aforementioned review, it can be summarized that the period of adolescence is the time during which youth face a dramatic change in all aspects. For instance, physical changes, especially sexual and hormonal development, which altered their psychology and emotional development. Adolescents need to adjust and adapt themselves greatly to shift on and become adults who are well developed-physically, intellectually, ethically and socially. If people surrounding adolescents understand and accept these changes, as well as provide guidance, they can pass the critical period and develop more healthy behaviors that are fully socially acceptable.

2.4.2 Gender Roles: Masculine and Feminine

"Gender roles are characteristics, behaviors, and interests defined by society or culture as appropriate for members of each gender." (Moore and Rosenthal, 1993).

As boys and girls growing up to adulthood, expected gender roles from them are differently, including different expectations for their behaviors. For instance, girls are expected to bear and nurture children as well as taking responsibility for household work. Men are seen as workers, primary breadwinners, and head of the household and fulfill leadership roles in the community (UNFPA, 2003)

Demand on children exists inside their homes and out of it; whether children have education; a teenager's introduction to sexuality, courtship, marriage practices and so

on, which reflect differential gender expectations. The development of gender roles and adolescents who adhere to traditional gender roles might affect the way they view sexuality and make a choice about sexual behaviors (Moore & Rosenthal, 1995).

In summary, we can conclude that gender roles within the traditional societies, such as the Lao context, showing a double standard strongly exists, whereas, the social support are also strongly accepted.

2.4.3 Vulnerability to Reproductive Health Problems

Reproductive health is a crucial part of general health, particularly for youth due to increasing earlier sexual maturation and later marriage, which can result in risk of non-marital pregnancy. Changes in familial and societal patterns and values have also resulted in a relaxation of social constraints on non-marital sexual activity (UNFPA, 1997).

Youths have been neglected as a separate target group and subsumed under the promotion of family, women's and child welfare and health. This has at least to some extent been because youth experience a relatively healthy stage of their lives and do not see health as a major issue in comparison with infants and adults (Dehne & Riedner, 2001). Nearly 10 percent of the global burden of disease, in terms of disability-adjusted life years (DALYs) lost, is beared by young people between 10-19 years old. However, they face a different set of health-risks that is related to behavior such as: accidents, smoking, substance use and sexual behavior. Especially, risky sexual behavior accompanied with early-unplanned pregnancy, STDs and HIV/AIDS (Senderowitz, 1995; UNDP/ UNFPA/ WHO/WB, 2003). Youth are increasingly seen as "gateways to health" because the behavior pattern during adolescence tends to last throughout adult life (Dehne & Riedner, 2001).

Adverse reproductive health outcomes in late adolescence are unwanted pregnancy, unsafe abortion, sexually transmitted infections (STIs), and HIV/AIDS. For instance, some 14 million adolescents give birth each year and it is estimated about on-third to two-thirds of these births are unwanted. Many of these youth resort to unsafe abortion.

Thus, adolescent pregnancies and births carry higher risks for both the mother and the newborn, which contributes to higher maternal and infant mortality. Girls in the age group 15-19 years are more likely twice than of girls in their twenties to have higher maternal mortality and die from pregnancy related causes than from any other causes (UNDP/UNFPA/ WHO/WB, 2003).

Other important consequences of unprotected sex are STIs. It was estimated about 340 million cases of curable STIs occurring annually in the world, at least one-third out of these are in people under age 25. There was evidence that new HIV infection in the younger age groups continue to rise at the overall population of people living with HIV/AIDS falls. Furthermore, half of new HIV infections occur among 15-24 year olds, accounting for approximately 2.5 million new infections a year (UNDP / UNFPA / WHO / WB, 2003).

With all the aforementioned reasons, the unmarried youth are ignored and not yet perceived as important. They are a special group that needs our concern. This study, thus, recognizing those reasons will focus on unmarried youth, particularly to study their sexual attitudes and behavior and protective factors against high-risk sexual behavior.

2.5 Theoretical Models Applied in Adolescent Sexual Behavior

Human behavior starts from the individual level, shifting to the family and peer levels. To understand how adolescents make decisions in engaging in sexual risk behavior, there are several theories explaining the human behavior in engaging in sexual behavior at the individual level, the family level, and the extra family level such as peer and social levels. Some theories explain human behavior in engaging in health-risk behaviors by using the combination of these levels.

2.5.1 Individual Level

The Health Belief Model developed by Becker (1974) and Janz and Becker (1984) is used to explain the Human Behavior, which is determined by the person's perceived seriousness, perceived susceptibility, and benefit that is related to the taking action.

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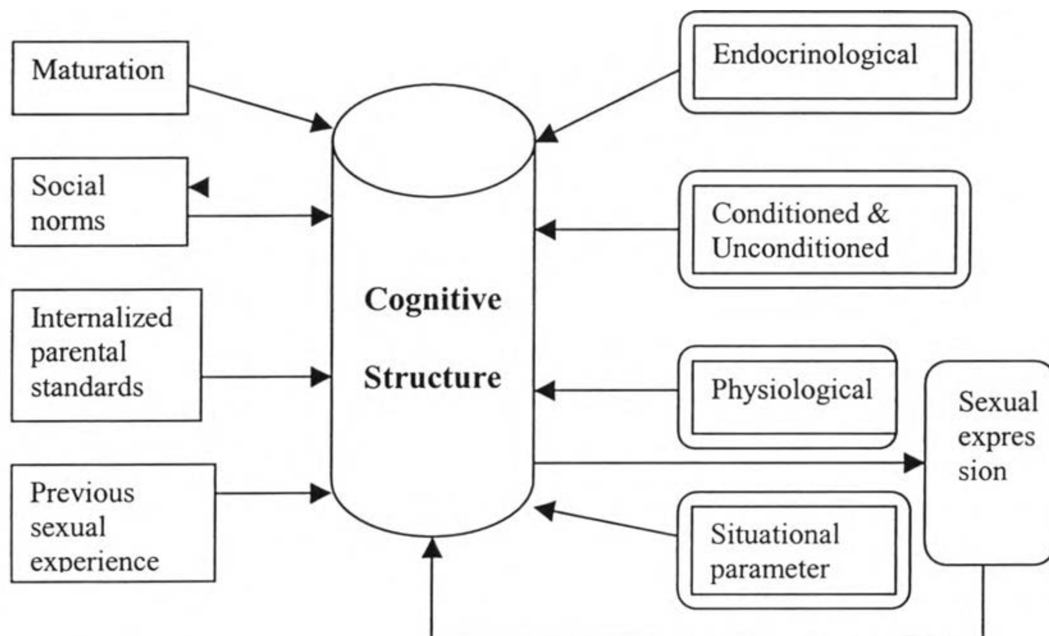
Later, Ajzen and Fishbein (1980) and Fishbein (1980) developed the Ajzen-Fishbein Model, which is used to help to explain this decision-making at the individual level. The framework takes into consideration engaging in sexual activity or use of contraceptives based on: i) the perceived cost and benefit of engaging or not engaging in this behavior; ii) perceived the risk to become pregnant or contracting STDs; iii) the perceived norms among their group, peers, family; iv) the willingness to match their desires; and v) the perceived self-efficacy in making decisions (Gage, 1998). However, this model does not take into account other factors such as the family and the social factors that influence human behavior.

Theory of Reasoned Action developed by Azjen and Fishbein (Fishbein, 1980). The key determinant of a person's behavior is behavioral intentions. People decided their intention in advance of most voluntary behavior and intentions are the best predictors of what people will do. Attitudes and subjective norms influence the intentions. Attitudes comprise of good and bad feelings about the specific behavior in question. Attitudes are influenced by what most people belief. Subjective norms are "the person's perceptions of influence about performing the behavior" (Kaplan, Sallis & Patterson, 1993). Subjective norms are influenced by pressure from signiificant others, which is defined as those whom are motivated to please.

The intention itself is viewed as a function of two determinants. These are i) the person's attitude towards performing the behavior (based on his/her belief about the consequences of performing the behavior, ie. the costs and benefits of performing the behavior), and ii) the person's perception of the social (or normative) pressure exerted upon him or her to perform the behavior. Then, Ajzen (1985) added the concept of "perceived control". He found that intention to perform a behavior would be stronger when people view that they have personal control over the behavior (Kaplan, Sallis & Patterson, 1993). The weaknesses of this theory of reasoned action are: i) intentions and behaviors are only moderate related; ii) the theory does not take into account the person's prior experience with the behavior; and iii) the assumption that people think about risks in detail.

The Abrasom's Sexual System Theory is a basic integrative framework in understanding sexual behavior, which is focused on all decisions with respect to the sexual expression, controlled by cognitive structure and comprises of four classes of inputs, these are: (1) maturation, (2) social norms, (3) internalized parental standards and (4) previous sexual experiences In addition, Abramson also suggested that cognitive structure leads to sexual expression by giving response to sexual stimulus which included endocrinological events, conditioned & unconditioned stimuli, psychological events and situational parameters (Figure1).



Source: Abramson, 1983

Figure 1: Abrasom sexual system theory

Additionally, there is the **Ecological Model**, which is used to explain adolescent sexual activity at the individual level. Bronfenbrenner's (1979) ecological model of human development conceptualizes ecological space as operating on different levels of systems, each system is incorporated within the next (Franklin, 1988, p.340). At the basic level is the micro system, which acts at the individual level in a given setting. The mesosystem involves interactions among settings. The exosystem affect the individual through acting indirectly (Concoran, 1999).

At the individual level **a social-psychological framework is applied for adolescent risk behaviors** consisting of personality such as perceived life chances, self-esteem, and risk taking actions. Further, the framework takes into account the family and extra-family level (see below).

2.5.2 Family Level

Family is the most basic unit of society. A family is a system, which incorporates a set of relationships among the members of that system. Family has an influence on the health behavior including sexual behavior of their children. The family system also relates to other systems. Especially, we will discuss the internal relationships of the family and the family structure as they influence on human behavior. There are several theories used to explain the role of family relationships and family structure that affect health-risk behavior.

The Ecological Model is also explaining that the family level has an influence on sexual-risk behavior. Family risk factors comprise of poor parental monitoring, less parental-child communication, low socio-economic status, living with single parents or stepfather/mother. This model also recommends that the risk factor might be different. Some studies suggested there is an association between low self-esteem and early initiation of sexual behavior in girls, but not for boys (Chilman, 1979). Other studies found that there was no association between self-esteem and sexual behavior for males and females (Hayes, 1987). While yet another study, related high self-esteem with early sexual activity (Flick, 1986).

Hirshi's Control Theory' is basically "the bond of the individual to society"(1969). The bond comprises of four components: i) attachment: toward conventional people; signifies how much a youth sincerely cares about other individuals; ii) commitment: to conventional behavior i.e. the development of a career and the establishment of a reputation; iii) involvement: with conventional people; time and effort the youth invests in conventional pursuits thus, reducing the availability for deviant behaviors; iv) belief: in conventional norms i.e. if the youth perceives the laws of society as right and proper, they are likely to be respected (Hirshi, 1969).

Hirschi concludes that those youths who maintain strong attachments and commitment toward their parents and school are less likely to engage in deviant behaviors than those youths who fail to possess these attachments. Hirschi continues by stating that juveniles with positive self-attitudes and respect toward the laws and values of society are less likely to become delinquent than those with negative attitudes and beliefs. Hirschi also notes that a weak link exists between delinquent behavior and social class. He suggests that the closer the ties to parents, the less likely it is that youths will engage in delinquent acts. It is not the parent's social status that is relevant, but, rather, the child's attachment to the parent (Hirshi, 1969). Hirshi's theory is focused on the family factor and health-risk behaviors and did not take into consideration the extra family factors such as social network, neighborhood and peer influences.

Parent-child closeness establish an atmosphere in which parent's opinion of adolescent's sexual behavior, expressed directly or indirectly, and internalized by adolescents play a protective role by enhancing sexually active adolescents to reduce their sexual risk-taking (Hirshi, 1969).

Attachment to parents is an important link between the child and the parent. Attachment is the link that allows the parents' values, ideals, morals and expectations to be expressed and received. When a youth is alienated from his parents, he will not internalize proper moral standards or develop an adequate conscience (Hirschi, 1969).

The theoretical model for socio-economic influences of adolescent's sexual behavior identifies that family structure (living with both parents) minimizes sexual risk behavior through negative effect on neighborhood and positive effect on family class and parental involvement. Parental involvements have positive effect on pro-social activities and lead to reduce sexual risk behavior (Ramirez-Valles, Zimmerman & Newcomb, 1998).

A social-psychological framework for adolescent risk behaviors comprises of five major domains, namely (1) the social environment, (2) the perceived environment, (3) personality and other behavior and (4) biology/genetics and (5) personality. The family

level is focused on biology/genetics, which comprises of family history of deviant behaviors. The framework represents the five domains, their contents, and specifies the relationships between them. There are some comments on this framework. First, the framework is complex, that is, it needs responsible account of any adolescent risk behavior. Second, each domain has a direct effect on adolescent risk behavior. Thirdly, the various risk domains have indirect effects on adolescent risk behavior, effects that are mediated through other risk domains and not all the connecting arrows have been drawn. Fourth, a framework only represents the structure of risk factors at one point in time, but process and developmental change in adolescent's context are not presented. Fifth, the bi-directional arrow of the framework makes the web of causation metaphor so opposite (Jessor, 1992).

Family interaction theory (Brook et al., 1990) was developed originally to explore factors that led some children to drug use as adolescents. The model has three major characteristics:

1) Adolescent's family is viewed as a system, consisting of the child, his or her siblings, and parents. Within this system, the mutual attachment between parent and child is paramount and is characterized by the child's identification with the parent, affection, and lack of conflict.
2) The family system domain, in turn, interacts with other significant domains: ecological factors (e.g., the school environment), the adolescent's personality and behavior traits, peer group attributes, and drug context (e.g., availability).
3) The relationship among these various domains creates a pathway to drug use or circumventing it.

2.5.3 Extra Familial Level (Community, Social and Peer Levels)

The community plays a key role in socialization of children that affects human behaviors. Communities are natural groupings of people based on kinship, neighborhood or shared cultural values and marked by informal relationships (Toennies, 1965). A neighborhood is also called a community. It comprises families, individuals, businesses, churches and service organizations. Communities, like families, have values

and norms that regulate the behavior of their members. Communities are very important social structures that provide support to their members.

Patterson et al. (1992) developed the **Social Context Model**, of the Antisocial Behavior. They suggested that specific family management practices in early childhood are important factors in the development of early aggressive and antisocial behavior. Parental mismanagement leads to aggressive behavior through involving increasingly coercive parent-child interactions. The model takes into consideration delinquent and antisocial behavior in adolescents through peer influence, and suggests that poor family management, including use coercive disciplines, poor monitoring, failing to support pro-social behavior and parents' lack of discussion skills, being associated with deviant peers and engagement in problem behavior (Biglan et al., 1990; Ary, 1999).

The theoretical model for socio-economic influences of adolescent's sexual behavior also explains that poor neighborhoods are likely to increase sexual risk behavior directly and indirectly through pro-social activities. The family's social class has an indirect effect on sexual risk behavior through neighborhood and pro-social activities. Race is associated with risk sexual behavior. Girls are less likely to report sexual risk behavior and participate less in pro-social activities than males (Ramirez-Valles, Zimmerman & Newcomb, 1998). In addition, family class position indirectly predicts sexual risk behavior through neighborhood poverty and pro-social activities.

A social-psychological framework also explains the social environment and the perceived environment that affects health-risk behavior. The social environment consists of risk and protective factors. The risk factors include poverty, normative anomie, racial inequality and illegitimate opportunity. The protective factors comprise of quality of the school, cohesiveness of the family, neighborhood resources and interested adults. The perceived environment includes a model for deviant behavior, parent-friends conflicts (risk factors) and a model for conventional behavior and high control against deviant behavior (protective factors).

The Ecological Model takes into consideration all the three levels. At the extra family level, this ecological model is explaining that peer risk factors consist of sexual active peers. School risk factor included lack of positive experiences in school; neighborhood risk factors are low quality neighborhood and low neighborhood monitoring (Small & Luster, 1994).

Overall, theories describing the sexual behavior at the individual level did not take into account factors such as environment and situations. They are relatively micro-level theories, each of which addresses a limited set of variables that might affect Health Related Behaviors; and the missing generals are comprehensive macro-level theories that bring together numerous micro-theories into one coherent framework. Some theories address the family and extra-family into the macro level, which could explain health related behavior more appropriately.

2.6 Related Studies:

An important and complex area of adolescent behavioral health is sexuality. The issues on sexual experiences and activities include the timing of first sexual intercourse, the number of sexual partners, frequency of sexual intercourse, contraceptive use, pregnancy, abortion and STIs. Sexual activity begins in early adolescence for many men and women in South East Asia. Age at marriage is relatively low for both men and women. According to a survey carried out by Australia/Lao Red Cross (1995), many young people especially those living in urban areas had their first sexual experience when they were in their teens. Adolescents are at high risk for the negative health consequences associated with early and unsafe sexual activity.

2.6.1 Premarital Sex

The social and cultural norms have influence on behavior of boys and girls that affects their sexual experience in the Lao society. Studies on adolescent sexual behavior in different parts of the world suggest that youngster's premarital sex usually is unplanned, infrequent and sporadic (WHO, 1995).

Changes in socio-economic development have an influence on changes in attitudes towards premarital sex, which shifted in the direction of greater permissiveness. Sex before marriage is relatively unacceptable (54 percent), while more than one quarter had no opinion in Lao PDR. Females have more traditional values than males and have a higher value on virginity. According to the National Adolescent Reproductive Health Survey (2001), female respondents showed stronger disapproval of premarital sex than males (59 percent versus 50 percent). Youth with some education felt stronger disapproval of sex before marriage than those youth with no education (57 percent versus 33 percent). Urban youth disapproved of premarital sex more than rural youth (65 percent versus 50 percent) (National Statistical Centre, 2001). Similarly studies carried in Thailand showed that adolescents realized that it might not be considered appropriate for young people to be engaged in premarital sex, but they regarded it as normal behavior. Adolescent men perceived it was appropriate for them to have sexual experiences but not for girls (Metha, Suman, Riet Groenen & Francisco Roque, 1998). This demonstrates that a double standard in premarital sexuality is strongly dominant in the society (Praditwong, 1990).

Although national-level surveys suggested that premarital sex is less common in Asia; some studies on adolescent sexual and reproductive health currently carried out showed that there is a trend of increase (Gubhaju, 2002). The National Reproductive Health Survey in Lao PDR (National Statistical Centre, 2001) showed that a small proportion of respondents (7 percent) had ever had sexual intercourse. The youth (20-25 years old) had four times more sexual relations than younger counterparts (17 percent versus 4 percent). A higher percentage of men (15-24 years old) (12.1 percent) than women (3.9 percent) reported being sexually active. Of those who had ever had sexual intercourse, the main first time partners were girl/boy friends (61 percent), general friends (20 percent) and bar girls (13 percent). During their first sexual experience for many men and women only 21 percent used condoms, while 79 percent did not use any contraceptives at all. Adolescent boys reported frequent sexual activity outside of their villages and boys might have multiple sex partners before marriage.

Similarly, a survey on knowledge, attitudes and behaviors on Reproductive Health among Adolescents who are using the Vientiane Youth Center for Health and Development showed that among 336 school youth interviewed, 15.8 percent of boys and 2.5 percent of girls admitted of ever having sex. The mean age for first sex for boys is 17 and 20 years old. The boys seem to have sex earlier than girls (NCCAB, LWU, SCF/UK, 2001).

A survey on sexual behavior among unmarried female adolescents carried out in Bangkok revealed that 3 percent of the respondents were sexually experienced (Soonthorndhada, 1996). Ford and Kittisuksathit (1996) carried out a survey among unmarried factory workers in Thailand and found that 9 percent of unmarried female workers and 63 percent of male workers reported being sexual active. A survey conducted in Cambodia revealed similar a pattern of low prevalence of sexual activity among adolescents, male having sexual activity more than women, increased premarital sexual activity and a decline in age at first sexual intercourse (Ly et al., 1997).

Among sexually active youths, the majority of teenagers had their first sexual intercourse with their steady boyfriend with marriage in mind in South East Asia Countries. Sananikhom et al. (2000) carried out a study in Lao PDR and reported that sex and pregnancy before marriage were common and more or less accepted because of the common belief that pregnancy outside marriage could lead to marriage. It was also found that sexual activity happened outside their villages, and boys might have multiple sex partners. Further, the majority of young people were not aware of the health-risks associated with commercial workers.

Overall, we can conclude that premarital sex is more common among unmarried youth and is more acceptable for males than for females within the socio-economic development in the country.

2.6.2 Sexual Behavior

Katchadourian's (1990) in Moore and Rosenthal (1993) described sexual behavior into two categories namely autoerotic behavior – that does not rely on partner involvement for sexual expression and "socio-sexual behavior" which relies on partner involvement. Autoerotic sexual behavior includes erotic fantasies, nocturnal emission and masturbation. Socio-sexual or partnered sexual behavior includes from dating, kissing to coitus. Solely for the purpose of this study sexual behavior is referred to as socio-sexual or partnered behaviors.

A survey done in Vientiane Municipality, Savannakhet and Bokeo revealed that many consider sex as part of human nature. Also, sex was created for conceiving children. (Lao/Australian Red Cross, 1995). Youngsters, students and businessmen tend to accept equal social rights between men and women. They do not believe anymore that women should remain loyal only to their husbands while men can play around and 'sleep' with many women. However, the older people share the conservative views of those married, i.e., it is unacceptable for women to 'sleep' with many men.

The Lao men are exposed to more risks than women because it is socially acceptable for them to have many sex partners. Furthermore, they do not like to use contraceptives while having intercourse. There are no available data on the percentage of homosexuals in the Lao society. Findings from an earlier survey revealed interesting data. Almost 47 per cent of male and 11 per cent of female respondents admitted to having more than one sex partner. Majority of the female respondents said they never had sexual intercourse, while only 31.6 per cent of the men said that they did not have had sex (UNESCO, 2004). Surveys done in Vientiane Municipality, Savannakhet and Bokeo provinces showed that many people share sexual partners and engage in sexual activity while drunk (Lao/Australian Red Cross, 1995).

In Lao PDR, first sexual intercourse at an age younger than twelve is rare but not at ages 13-16 (10 percent of male and 6.5 percent of female respondents). The highest percentage of first sexual encounter for both men (44.5 percent) and women (24.3 percent) is at age 17-21, while the percentage at ages above 21 declined to 12.6 percent

for men and 9.8 percent for women (UNESCO, 2004). Findings from Thai studies showed that male adolescents have their first sexual intercourse at the age 15 years, but an average age between 17 to 18 years old. Female adolescents had less experience with premarital sex than males. There was only 5 percent of female adolescents aged under 18 years of age who had premarital sex (Havanon, Bennett & Knodel, 1993, Vanlandingham, Knodel & Pramualratana, 1995; Ford & Kittisuksathit, 1996; Podhista & Pattaravanich, 1995). Isarabhakdi (2000) also found that males experienced their first sexual intercourse at a younger age than females (16.6 years versus 17.6 years).

Marriages among the Lao people started as early as 14 years of age. These early marriages, before 15 years of age, comprised of 6.8 per cent of the total number of marriages. The majority married between ages 15 to 19 years old with the mean age of 19.4. Marriages at the age of 25 or above, up to 35 years old, accounted for 4.2 percent. The mean age at first pregnancy is 20.2 years old (National Statistical Centre, 2001).

Childbearing at an early age of thirteen has been found to occur in remote areas. Many of these pregnancies are unwanted but are becoming prevalent because of unawareness of the consequences of premarital affairs, unprotected sexual activities and sexually transmitted diseases (WHO, 1999). In Lao PDR, overall, 14.7 percent of adolescent girls aged 15-19 become mothers and 3.7 percent are currently pregnant. Thus, approximately 18 percent of Lao teenagers have started childbearing, which is extremely high compared to other countries in the region (UNFPA, 2003).

There are no data on teen pregnancies or childbirth among unmarried women. Among married women, however, the highest frequency (16 percent) of first birth was at ages 18-19, closely followed by ages 20-21 (15.8 percent) and ages 15-17 (14.9 percent) (National Statistical Centre, 2001).
Based on the review of relevant literature, Lao youth are at high risk as they started their first sexual intercourse at early age facing its negative consequences such as childbearing at early age.

2.6.3 Sexual Attitude

Sexual attitude can be defined as:

> *"An attitude comprised of beliefs, evaluations and action intentions that might affect behavior." (Rosenberg & Hovland, 1960).*

Usually people hold complex relationships between attitudes and behavior. Ideally, positive attitudes contribute to healthy behavior, however, in some circumstances, positive attitudes may result in harmful behavior. Values and attitudes about sex are positively associated to behavior (Miller, Christensen & Olson, 1987; Miller & Olson, 1988; Thompson, 1982). However, Miller, Christensen & Olson (1987) found that there is an association between sexual behaviors that opposite personal value and lower self-esteem and emotional distress. Additionally, these values are more likely to match local social norms. Adolescent males and females practice value differences about sexuality; individual values and attitudes, which contribute directly to sexual expression for both (Plotnick, 1992; Rotheram-Borus & Koopman, 1991).

According to a study conducted by Ku (1993) among 2,087 American unmarried youth aged 17-19 years old, youth with more conservative attitudes towards sexuality were less likely to engage in premarital sex. Similarly results were found for the study in Hanoi and Ho Chi Minh City of Vietnam, which showed that attitudes towards premarital sex had strong significant relationship with premarital sex practice (Burack, 1999).

Premarital sexual attitudes have an influence on the sexual behavior. The previous studies demonstrated that adolescents, who have more permissive attitudes, are more likely to initiate premarital sex at an earlier age. There are gender differences in attitudes between male and female among unmarried youth. A study carried out in Thailand (Isarabhakdi, 2000) has been found that never married adolescents had more liberal attitudes towards males' premarital sexual behavior than for females.

In conclusion, attitudes towards sex are associated with sexual behaviors. Youth with liberal sexual attitudes were more likely to correlate with sexual activity; while youth with conservative attitudes were significantly less likely to involve in premarital sex.

2.6.4 Gender Difference

Sex roles within the society are different for males and females. In the Asian culture, males are considered to controlling, independent, assertive, competitive, aggressive and manipulating the environment; while females are seen as involving passively, being dependent, nurturing, non-aggressive and warm (Moore & Rosenthal, 1995).

Adolescent males and females report differences in sexual expression for frequency of intercourse and attitudes about sexuality (Herald, Valenzuala & Morris; 1992; Newcomer & Udry, 1985). Adolescent males are less disposed to consider love as a precursor to sexual intimacy than adolescent females (Whitbeck, Hoyt, Miller & Kao, 1992). Adolescent males are more likely to become sexually active at an earlier age than females. Young males and females have a different pattern of sexual behavior because of gender socialization, which is the process of acquiring specific cultural and social norms. Adolescent females have double standards regarding their tolerance of sexual activity compared with that of young men (Gage, 1998; Meekers & Calves, 1999). There is a positive relationship between expectations for sexual intercourse and length of relationship for adolescent males, but not females (Knox & Wilson, 1981).

The effect of family environment is different for males and females. For instance, Newcomer and Udry (1984) illustrated that change in marital status of parents affected age at first sexual intercourse of boys more than girls. Lauritsen (1994) also found that living with a single parent affected the sexual frequency of girls more than boys.

2.6.5 Sexual Communication

In the Lao culture, sexuality is not a topic people talk about easily and openly. Studies showed that adolescents in many developing countries rarely discuss sexual matters (e.g. sexual intercourse, sexuality, sexual preferences, and menstruation) explicitly with their parents or adults. The information mostly comes from their peers who may be

uninformed or incorrectly informed and are likely to be relatively inexperienced themselves (Kurz & Johson-Welch, 1994). Another study in Thailand also found that parent-child communication about sexual information is rare, so children usually seek information from outside their family (Sethaput & Pattaravanich, 1993). This can be explained that parents or adults may have no knowledge about adolescents' sex. Another reason is that parents have conservative values about sex and they feel embarrassed to discuss sexual matters with their children. Lastly, parents do not agree with premarital sex and they are reluctant to discuss sex with their children and they think that their children will learn by themselves when they are grown up (Newcomer & Udry, 1984).

The findings from the National Survey on Adolescent Reproductive Health in Lao PDR reported that two third of the respondents (67 percent) never discussed sexual matters before marriage with anybody, while only 28 percent discussed with friends, and 5 percent with a brother or sister. Younger adolescents have less discussion on sex before marriage than the older age groups. Females discussed sexual matters less than males (72 percent versus 63 percent of never discussed) (National Statistical Centre, 2001).

In conclusion, sexual communication between parents and youth is rare within the Lao context. Mostly, the main source of sex education for youth is come from their peers, followed by siblings.

2.6.6 Factors Affecting Adolescent's Sexual Activity

Adolescent sexual attitudes and behavior are influenced by biological and psychosocial factors within individual, proximal relationships in family and peer groups and socio-cultural contexts, such as race, religion, school and the media (Miller & Fox, 1987).

It is important to know the context of first sexual intercourse in order to understand the adolescent's sexual risk behavior. The partners of young women were older than women; while adolescent's males' first partners average less than a year older. Most of young women are persons that they are dating and their first sexual experience of both male and female adolescents are unplanned (Miller & Moore, 1990; Harris & Associates, 1986). Additionally, it should be noted that it is also important to know the

frequency of sexual intercourse and the number of lifetime partners. According to the Adolescent Reproductive Health Survey (2001), the main first partners were girl/boyfriends (61 percent), general friends (20 percent), and bar girls (13 percent) (National Statistical Centre, 2001).

2.6.6.1 Antecedents of Adolescent Sexual Behaviors

a) Biological

Puberty is a biological period involving many changes. The psychological state of puberty is adolescence. The precocious pubertal development is accompanied with early sexual intercourse (Miller & Moore, 1990). Zabin et al. (1986) found that early pubertal development applies a downward pressure on the age of first sexual intercourse. The models of sexual intercourse included age, pubertal development and hormonal levels. However, Udry (1988) found relations between hormonal and sociological variables, but hormonal level remained the only strong predictor of the timing of the transition to coitus among males. There is a strong association between hormone levels, pubertal development and sexual activity (Miller & Moore, 1990).

b) Demographic Characteristic

b.1) Age

Age is one factor that might have an influence sexual activity. The older age group of adolescents was more likely to engage in sexual activity. Several researchers suggested that sexual activity is increased with age (Ajayi et al., 1991; Xenos et al., 1993; Abraham & Kumar, 1999). As Isarabhakdi (2000) found that sexual activity increased with age among rural Thai youth.

b.2) Education

Education plays an important role in sexual attitudes and behaviors. Youth with high educational attainment level were less likely to engage in sexual experience or initiated their first coitus at later age compared to those youth who have low education, particularly for male youth (Vanlandingham et al., 1993). Small and Luster (1994) found that teenagers who planned to go to university or having a career were less likely to have engaged in sexual activity. Furthermore, youth with low educational

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achievement and aspirations were associated being more sexually experienced (Eggleston et al., 1999) and with early onset of intercourse (Jessor et al., 1993).

Early sexual activity is also related to lower academic success and limitations in vocational and career planning (Allen et al., 1997; Benda & Corwyn, 1998, Smith, 1997). Under conditions of low educational achievement, teens might judge that the negative aspects of sexual activity are not important compared to its immediate benefit as a verification of adulthood.

In contrast, some authors found increased sexual activity among those with higher education (Carael, 1995). However, Meekers (1994) suggested that the association disappeared when age is controlled for. The Thai Family and Youth survey (1995) suggested that both male and female in school youth were more likely to experience premarital sex than out-of-school youth. The authors explained that it might be due to in-school youth have greater exposure to more friends of the opposite sex (Phodhisita & Pattaravanich, 1995)

b.3) Psychosocial

Earlier sexual intercourse is a predictor of sexual frequency and the number of sexual partners. Age at first sexual intercourse is positively associated to expectation for independence; however is negatively associated with expectation for academic performance (Donovan & Jessor, 1985; Thornton, 1990). Johson et al. (1994) and Seidman and Reider (1994) carried out studies in the USA and found that youth, which reported first sexual intercourse before 16, were more likely to have more sexual partners and more frequent sexual intercourse. Similarly Miller, Christensen and Olson (1987) and Thornton (1990) also found that adolescents who dated at earlier age have more dates with more sexual experience, a higher number of partners, and high level of sexual activity during their later teens.

Self-esteem was positively associated with sexual intercourse experience among adolescents who was believed that sexual intercourse was right and negatively associated with sexual intercourse experience among adolescents who was believed that it was wrong (Miller, Christensen & Olson, 1987; Miller & Moore, 1990).

2.6.6.2 *Socio-cultural*

Adolescent sexual behavior is influenced by cultural norms. As documented by Miller and Moore (1990) socio-cultural factors determine how youth's sexuality is expressed through the cultural context. It has been noted that social institutions, including family and religion control sexuality in three ways. Firstly, it provides specific perspective on the meaning of sexuality defined by norms. Secondly, persons use these norms as the basis for informal controls. Thirdly, formal rules limit sexual behavior through fear of institutional sanctions. Ideologies of masculine and feminine roles may determine the adolescent's sexual behavior. For example, the social norm defines a "good woman" as being not having sex or being passive in sexual activity (Barmer et al., 1995); while a "real man" is defined as sexually experienced, and not limited to one partner (Mason, 1994; Miles, 1993).
Factors of the cultural, social and economical order influence sexual behavior and the reproductive activity of adolescents. In many cultures, to have sex during adolescence- especially for the boys- comprises of a passage into adulthood. Youth are frequently faced with great pressure coming from the community, from the family, from the parents etc. to undertake certain appropriate behaviors according to their biological gender (Luisa Ruda de Belmonte et al., 2000).

Socialization has a profound influence on the balance of power in adolescent sexual activity and behaviors due to accepting male dominance in sexual encounters. In cultures where females have less power than males, boys and girls learn through their early socialization, which is reinforced by religious norms if it considers women inferior to men (Gage, 1998).

2.6.6.3 *Peer Influence*

The peer group has an important influence in forming adolescent's beliefs and regulating their behaviors. Peer influence and pressure is often one of the most influential factor affecting adolescent sexual decisions. It can operate in many ways. Firstly, the adolescent get information about sex from friends, which may serve to guide decision-making about sex. This information is not always accurate; misconceptions and myths about fertility are common. Secondly, adolescents can

accept peer attitudes about sexuality, which is reflected in peer behavior. Adolescents may use this as a model for their own behavior (Moore & Rosenthal, 1995).

Peer influence may operate in many ways such as transmission of attitudes. According to the theory of reasoned action (Fishbein & Ajzen, 1975), perceived attitudes and values of significant others have an important effect on the intention to engage in the action and in turn lead to perform the action. A previous study demonstrated that there was a relationship between adolescents' own attitudes to sex, the number of sexual partners and the perceived attitudes to premarital intercourse of their peers (Moore & Rosenthal, 1993).

Numerous studies (Wright, Peterson & Barnes, 1990) showed that high peer involvement tends to work against and sometimes overrides the effect of parental involvement. Brown et al. (1993) found that adolescent's relationships with their peers, and adolescents in less involvement and attachment to families are more influenced by peers than parents. The strength of peer influence on sexuality is mediated by parent-child communication (Wright, Peterson & Barnes, 1990).

There are positive and negative influences of peers. Peers influence school performance and pro-social behaviors (Wentzel & Cadwell, 1997), drug and alcohol use and delinquency (Urberg et al., 1997) and sexual behavior (Newcomer, Gilbert & Udry, 1980; Urberg et al., 1995). Perception of peers is an important factor that influences sexual behavior and attitudes of adolescents. As Newcomer, Gilbert and Udry (1980) found that sexual behavior and attitudes of adolescents are associated with the perception on behaviors and values of the peers. Rodgers and Rowe (1990) also reported that both, best friend and sibling's sexual and other mildly deviant behaviors, predicted behaviors among adolescents. Their perception on behaviors of their peers, hold permissive sexual attitudes and actively influence their decision making on sexual behavior.

Generally, adolescent males and females report similar perceptions of peer pressure, but males are more likely to submit to peer influence. As Isarabhakdi (2000) reported peer

influence was one of the main motivations for male youth to engaging in first premarital sexual intercourse. It seemed that there is a gender difference in the influence of peers. For instance, there was a correlation between female youth's attitudes to sex, the number of sexual partners and perception of premarital sex of their peers, but not for males. In other hands, More and Rosenthal (1995) suggested that the use of contraception and safe sex practices were influenced by peer attitudes for females, but not for males.

As Mark Vanlandingham, Knodel, Champon & Pramualratana (1998) reported, male peer group are closely intermingled with the onset and continued participation in sexual activity involving commercial sex workers. He pointed out that unmarried male Thai youth often visited commercial sex workers in a small group and is a common means to have first sexual intercourse.

Based on the review of relevant research literature, as discussed above, peer influence is strongly related to youth's sexual behaviors and attitudes. Youth are more likely to accept their friend's behavior; hence, youth whose friends have inappropriate sexual behavior will probably have inappropriate behaviors.

2.6.6.4 Family

The family unit is the initial source of a child's development and socialization. The family plays an important role in society and it is a primary social and economic component of the social structure. Through the family the child receives the care and nurturance necessary to maintain their life during its early years.

There are many definitions of the concept 'family'. According to Beutler, Burr and Herrin (1989), family is defined as:

> *"A unique social group involving "generational ties, permanence, a concern for the total person, heightened emotionally, care giving, with qualitative goals, an altruistic orientation to its members, and a primarily nurturing form of governance." (Beutler, Burr & Herrin, 1989).*

However, Cheater (1989) gives a more simple definition of family:

> *"A family is formed on the basis of material link between the spouses to whom the children are affiliated." (Cheater, 1989).*

The definition of a family and the functions performed by a family system differ among many different societies; the actual family structure may vary greatly from one society to another.

Family is classified into two categories such as a nuclear family and an extended family. A nuclear family refers to a family form composed of a husband, wife and children (Ross & Cobb, 1988). Nowadays, it includes also couples without children, single parents, and a reconstituted family, unmarried couples with or without children. The extended family refers to the groups of individuals that are related by blood, namely aunts, uncles and grandparents. It made up of three or more generations living together in the same household or very close together.

The family is the primary institution for the socialization of children because the family teaches the child the values and the behavioral expectations (Lloyd, Engle & Duffy, 1995). Barber and Allen (1992) reported that family is one of the most powerful socializing institutions. It is within the family that people construct beliefs about the sexual division of labor, learn about the regulation of sexuality and experience the effects of gender, class and race hierarchies in personal and intimate ways.

Another complexity of the family is also reflected in the particular influences associated with sexual activities. Parents and adults also play a major role in socialization and control children's activities. Parenting styles are connected to several aspects of childhood development, including sexual risk behavior. Parental supervision and monitoring is related to sexual expression by communicating parent's concern about risky sexual behavior (Romer et al., 1994). There are many aspects of family that affect adolescent sexual behavior, including parent's characteristics, family structure, family relations and interactions, attitudes, values, norms of family members (Miller & Moore, 1990).

Many researchers have examined sexual behaviors and attitudes of adolescents from a variety of theoretical perspectives (Christopher & Roosa, 1991; Miller & Fox, 1987). They attempted to consider biological, psychological and social factors to explain the initiation of coitus and the use of and failure to use contraception among adolescents. Previous research found that socio-environmental and personal factors are influencing the age of first sexual intercourse. Among the social factors are parents, siblings, sexual partners and friends (Resnick et al., 1997).

It is important to understand that how parents transfer their own feeling about sexuality to their children. According to Thornton and Camburn (1987), parents can influence adolescent's sexual behavior through four different ways. Firstly, parental attitudes towards sexuality may influence adolescent attitudes. Secondly, the marital status, living arrangements, sexual behaviors of parents may play as role model for their youth. Third, the religiosity might influence youth's sexual attitudes and behaviors and lastly, the educational level and work experience of parents may affect youth's sexual attitudes and behaviors.

Many studies on adolescent sexuality have focused, particularly on the relation between parenting behaviors and teen behaviors and attitudes. Parent-child communication about sexuality was most commonly examined as a possible cause of teen sexual initiation (Whittaker, Miller, May & Levin, 1999; Rosenthal, Feldman, 1999; DiIorio, Kelley & Hockenberry-Eaton, 1999), and parental monitoring (Small & Luster, 1994; Diclementel et al., 2001).

Newcomer and Udry (1984) discussed an association between mother's sexual experience and adolescent's sexual behavior. That means that the earlier the mother's first sexual experience and first birth is associated with the earlier the daughter's experience. They conclude that this could be because of common biological and social factors.

2.6.6.5 Family Variables Influencing on Adolescent Sexual Behavior

Familial influences on adolescent sexual behavior can be divided into two categories: family structural variables and family process variables. Generally structural variables were paid less attention than process variables. The structural variables in regards to early onset of sexual activity and the frequency of sexual intercourse are single parenting or the absence of a father, low education level of parents (Small & Luster, 1994) and low socio-economic status, employment's status of mothers and living arrangement. The structural variables did not play a dominant role in theoretical frameworks to understand adolescent sexual behavior (Salem, Zimmerman & Notaro, 1998). On the other hand, process variables have been given more attention in the theoretical framework of social learning theory (Bandura, 1977; Patterson, 1982; Patterson, Reid & Dishion, 1992). Many studies indicated that family structure and process were directly associated to experimenting with substance use and sexual behavior (Turner et al., 1991; Turner et al., 1993).

The structural variables of family have a less important role in influencing the sexual behavior of adolescents. Donovan (1995) found that demographic variables alone explained approximately 16 percent of the variances in sexual activity. Hogan and Sun (2000) carried out a study on sexuality and fertility behavior of American females aged 15-19 years and reported that adolescents whose parents were better educated were 28 percent less likely to initiate sexual intercourse and 52 percent more likely to use contraceptive at first sexual intercourse. Family income did not show a linear association with sexual behaviors (Santelli et al., 2000). However, Ku et al. (1993) found that there was an association between higher family income with an increased number of sexual partners and an increased frequency of intercourse, but not with use of effective contraception.

Based on the review existing literature, we can conclude that family variables including family structural variables had less important compared to family contextual variables. As mentioned at earlier stage that family structural variables could explain the variance in sexual activity in small percentage. In addition, we could not make any interventions on the family structure variables compared to family contextual variables to reduce the

sexual risk behavior of unmarried youth and protected them from the negative health consequences of premarital sexual activity. Thus, the study will emphasize on the family contextual variables rather than family structural variables. The questions could be raised from the review of literature were that what are the reproductive health risk and protective factors for the sexual-risk behaviors and attitudes of unmarried youth within the Lao context.

2.6.6.6 Family Structural Variables Influencing on the Sexual Attitudes and Behaviors

Family structure is a salient family context in which children grow up, usually having primary relationship with one or two biological parents. The most important aspects of family structure were socio-economic status, parents' working status, parents' marital status, and living arrangements.

a) Parent's Socio-economic Status

A socio-economic status of parents usually is reflected by their education, occupation and income. The socio-economic status of parents is related to adolescent pregnancy. As many studies demonstrated that adolescents whose parents have higher education and income are more likely both to postpone sexual intercourse and use contraceptives (Miller, Benson & Galbraith, 2001). Taris and Semin (1997) also found that socio-economic status of parents inversely related to having sexual intercourse.

The higher the level of education completed by parents, the less likely their teens are to be sexually active (Forste & Heaton, 1988; Rossa et al., 1997). The plausible explanation may be that parents with high education are likely to set higher educational goals and put a higher value on work performance for their teens. Adolescents with low educational goals and performance are associated with high-risk sexual activity (Miller & Sneesby, 1988). Parent's education may also indicate access to financial resources and more liberal sexual attitudes. Additionally, parents with high education are more likely to get involve in their children's school activities and sex education curricular (Laura et al., 1996). In contrast, Whitaker et al. (2000) looked at mothers' education, fathers' education and parents' mean income and found no significant relationship with

youth sexual activity. Kinsman et al. (1998) also suggested no significant relationship between youth sexual activity and parents' per capita income. Lammers et al. (2000) found negative correlation between higher SES and sexual activity for all age groups and genders.

Based on the previous discussed studies, it could be concluded that the findings on family structure variables are somewhat equivocal. Some authors suggested that youth from higher socio-economic status are less likely to be sexually active compared to those youth from low socio-economic status. Some researches found no significant relationship with sexual activity.

b) Parent's Working Status

Another aspect of family structure is employment's status of parents, particularly mothers, which have influence on the adolescent's sexual behavior. Parents working outside home become the barriers in rearing their children, due to less time spent with their children. Several studies indicated that the economic status of the family and the working status of parents lead to different opinions and attitudes, which are in turn, affect the behaviors of youth (Gecas & Seft, 1990).

Working mothers have an impact on adolescent behavior. Adolescents whose mothers are housewives had lower rates of first sexual intercourse than those adolescents whose mothers worked out-side of the home full-time. However, whether the mother worked full-time or part-time had no influence on the use of contraceptives at the first sexual intercourse (Ku, et al., 1998; Hogan et al., 2000). These studies showed that employment's status of mothers was positively correlated to youth's sexual behavior at younger age.

Based on the review of studies mentioned above, it could be concluded that the result is mixed. Some studies found no correlation between mother's working status and sexual activity; while other authors suggested that the employment's status of mothers was positively correlated to youth's sexual behavior.

c) Parent's Marital Status

Family structure is a significant family context in with children grows up and has relations primarily with their parents. Another important aspect of family structures was the association between parental marital statuses and initiation of sexual intercourse, with single parents indicating an increased probability of early initiation of sexual intercourse. With regards to the parent's marital status, many studies showed consistent results. Youth living with a single parent is correlated to youth's sexual intercourse at younger ages (Whitbeck et al., 1999; Dorius & Barber, 1998). Many studies showed youth with single or divorced parents' had more permissive sexual attitudes, lesser parental supervision and increased risk of pregnancy (Upchurch et al., 1999; Whitbeck et al., 1999).

The above studies have demonstrated that adolescent-daughters from single parents are more likely to initiate sexual intercourse at the younger ages than their peers from two-parent families (Hayes, 1987; Miller & Bingham, 1989; Newcomer & Udry, 1987). This may reflect lower parental supervision, more permissive parental attitudes, role modeling or in some way relate to paternal absence. There are fewer parents and because single mothers are more likely to work full time than are mothers in two-parents' families (Dornbusch et al., 1985; Santelli et al., 2000; Hogan et al., 2000). For males, the two-parent family was related to less sexual activity and older age at first sexual intercourse. In contrast, for females, the two-parent family was not important in influencing sexual behavior (Young et al., 1991). However, Donovan (1995) found that living in a single-parent household was not related to teenager's sexual experience. He reported that adolescent development is so strongly determined by others factors (e.g. peer pressure) that even two-parent families do not have much influences.

Types of families such as biological, stepparents that share the same sexual orientation also have an influence on the sexual behavior of adolescents. Adolescent whose parents were cohabiting at the time of child's birth was more likely to be sexually active than those whose parents were married. Adolescents in alternative living arrangement were more likely to be sexually active than those families with both biologically parents (Hogan et al., 2000).

The review of the existing literatures is not conclusive. Some authors found that that youth from single parent tended to have more sexual behaviors than those youth from two parents living together due to lack of parental supervision and monitoring, thus, lead them to have more opportunity to engage in sexual activities. The other authors suggested that there was no statistically significant correlation between parent marital status and youth sexual behaviors.

d) Living Arrangement

Living condition is one important protective factor against inappropriate sexual behavior. As empirical research suggested that human behavior depends upon on the environment they live in. Youth living independent from family have more freedom to take care of themselves and are free from the strict rule of family and their parents. Thus environment could lead them to sexual experiences (Galambos and Tilton-Weaver, 1998). Isarabhakdi (2000) also found that young males whose parents were presence in the family were less likely to have premarital sex in comparison with young males who lived with one parent or relatives. With respect to the living condition, several researches found that there was a correlation between living arrangement and sexual behaviors. Compared to those who lived with both parents, youth who lived with their grand parents were less likely to have multiple partners, while those who lived alone, with one parent, with a sibling or other persons were more likely to have more than one partner (Rwenge, 2000)

Overall, previous studies suggested that youth's living condition was associated with being sexually active. Youth who live in a dormitory or rent a house were more likely to engage in sexual activity than those who live with parents or family.

2.6.6.7 Family Process Variables Influencing on the Sexual Attitudes and Behaviors

A family process is defined as:

> *"The nature and quality of family dynamics and relationships (e.g. parental support, family conflict)." (Salem, Zimmerman & Notaro, 1998).*

From a family context, parental behavior and attitudes are considered critical in the socialization of adolescents. The parenting variables that have been identified as important in affecting behavior of adolescents are: parental monitoring or supervision; parental communication; parental support; parental behavioral control; parental connectedness; and parental psychological control (Rodgers, 1999; Miller, 1999).

Family plays an important factor that protects adolescents from sexual risk behaviors. These factors are positive family relations, parental monitoring; parent-child communication about sex and safe sex behaviors; parental support; parental behavioral control; parent-child connectedness and parental psychological control (Perrino et al., 2000; Rodgers, 1999).

a) Parent-Youth Connectedness

Connectedness is a new concept that emerges in adolescent sexual behavior. Connectedness to schools and family showed a strong relationship with healthy behaviors and better health outcomes (Bonny, 2000). In studies examining the association between parental monitoring and adolescent sexual behavior, there are moderating effects of the closeness of the parent-child relationship. They indicated that adolescents with a close relationship characterized by support, warmth, trust and respect, may internalize the parent's concern and control efforts and may perceive this as acts of caring (Rodgers, 1999). Parent-family connectedness is a significant family factor associated with delaying the first sexual intercourse (Resnick et al., 1997).

Brook, Whiteman et al. (1993) describe four elements of the parent-child connectedness such as Identification (the child's identification with the parent's values); Lack of conflict (a function of open communication and joint, effective problem solving); Warmth (an intense, lasting, affectionate bond); Involvement (a reflection of the parent's "child-centeredness". When parent-child connectedness is high in a family, the "emotional climate" is one of affection, warmth, satisfaction, trust, and minimal conflict. Parents and children enjoy spending time together, communicate freely and openly, support and respect one another, share similar values, and have a sense of optimism about the future.

A close-parent child communication may foster adolescents' willingness to consider parental wishes and concern when they begin to make decisions and choices about their sexual behavior. The ability of parents to influence and control on the youth's sexual behavior is mediated by the parental relationship (Thorton, 1991). Concerning parental influence, many empirical studies highlight aspects of parent-child relations that are particularly relevant to adolescent's sexual risk behaviors. The cue relationship factors included parent-child closeness and connectedness. Previous studies that focused on the first sexual intercourse, reported that relationships characterized by high levels of closeness and connectedness between parents and children are related to adolescent's virginity status and to delay first sexual intercourse (Sieving, McNeely, Blum, 2000). The authors also found that a high level of mother-child connectedness was significantly related to delay of first sexual behavior among older boys, but not among older girls. Another study carried out with African-American adolescents aged 14 to 17 years old noted that adolescents who had greater satisfaction ties with their mothers were less likely to engage in sexual-risk behavior and initiate intercourse later than peers that had less satisfaction with their mothers (Jaccard, Dittus & Gordon, 1996; Jaccard, Dittus & Gordon, 1998). Taylor-Seehafer and Rew (2000) identified protective factors for early initiation of sexual activity includes the development of healthy sexuality, family and school connectedness, and the presence of caring adults.

Parental connectedness (feeling of warmth, love and care from parents) is significant associated with reduced health-risk behaviors (Jaccard, Dittud & Gordon, 1996; Resnick et al., 1997; Rodgers, 1999). They also indicated that those high levels of parent-family connectedness, parental disapproval being sexually active and parental disapproval of contraceptive use is associated with delaying sexual debut. Additionally, higher levels of parent-child connectedness are also related with a lower pregnancy (Resnick et al., 1997). In contrast, Somers and Paulson (2000) reported that higher levels of parental connectedness in combination with parental communication did not have any significant influence on these adolescent's sexuality. Some researchers showed that the influence of parental involvement or closeness had mixed result. For example Whitbeck et al. (1992) found that the quality of parent-youth relation, affecting adolescent sexual behavior is inadequately supported. Lauritsen (1994) found

that feeling attachment to family had an effect on boy's sexual frequency, but not on girls'. It is possible that different paths to sexual activity exist for boys and girls.

Family contact and knowledge are related to lower levels of sexual risk-taking. One plausible explanation could be that families have a core value that may get communicated through family stories. Another explanation is that both closer relationships reflected in the telling of family stories and may leads to reduce the high-risk sexual behavior (Landau, 2000). Author also found that family-continuing contact over time and space might provide the protection against high-risk taking sexual behavior.

Miller (1998) suggested that youth with close relationship with their mothers were more likely to hold attitudes and behaviors similar with those of their mothers compared to those with distant relationship. Thus, youth less connected with parents reflected in an increased inability to speak to parents about sexual topics which is associated with increasing prevalence of early sexual activity (Reynolds & Rob, 1988).

In summary, the literatures found inconsistent results. Some authors suggested that parental support; warmth, closeness and connection between parents and youth decreased high-risk sexual behavior of youth and adolescent pregnancy risk. In other hands, some researchers found that there was no correlation between connectedness and youth's sexual behavior. Furthermore, the effect of the quality of parent-youth relationship is different for boys and girls.

b) Parental Monitoring

Many studies revealed that parental monitoring of adolescent's social activities are associated with delayed sexual initiation or less risky sexual behavior (Romer et al., 1994; Luster & Small, 1994; Metzler et al., 1994; Diclementele et al., 2001). Additionally, parental monitoring is a predictor of delayed onset of sexual activity and is associated with psychological adjustment (Harvey and Spigner, 1995; Tubman, Windle & Windle, 1996; Romer et al., 1999). A longitudinal study on the impact of perceived parental monitoring on adolescent risk behavior over 4 years in the United

States of America also confirmed that there is a strong adverse correlation between parental monitoring and unprotected sex, drug use and drug trafficking. In general, the perceived parental monitoring tended to decrease with advancing age of the youth (Li, Feigelman & Stanton, 2000)

Previous studies also suggested that parenting monitoring is associated with less health-risk behaviors such as alcohol use, aggressive behavior and delinquency, including sexual behavior (Patterson, Reid & Dishion, 1992; Ary et al., 1999; Li, Feigelman & Stanton, 2000). The strong adverse relationship between perceived parental monitoring and adolescent risk behavior recommended that parental monitoring initiatives might be an effective intervention tool.

Rodgers (1999) found that parental monitoring might be a protective process independent of parental support. It can be explained that parental monitoring conveyed to adolescents that parent care of them. However, Moore, Peterson and Fustenburg (1986) showed that there is no significant relation between parental monitoring and adolescent sexual activity. The proportion of adolescent's friends, whom parents knew, determined parental monitoring.

Monitoring and control emerge to have a curvilinear effect. For instance, too many strict rules and too little supervision are related to high-risk sexual behavior (Miller et al., 1986). Rodgers (1999) suggested that adolescent girls with high level of maternal guilt are more likely to engage in sexual behavior than peers who perceived less maternal control guilt.

The review of the existing literature leads to a conclusion that parental monitoring is inversely correlated with adolescent sexual behaviors. However, if the parental control is excessive or coercive or extreme low, adolescents are at great at risk of sexual behavior.

c) Parental Support

Parental support plays a crucial role in the high-risk taking sexual behavior of the adolescent female. Parental support is defined "as resources provided by parents"(Cohen & Syme, 1985). There are many types of support such as emotional, practical, instrumental and informational-self appraisal support (Christine & Michelle; 2003). An open and supportive mother-daughter relation is a predictor to delay sexual intercourse, the likelihood that a girl will not experience multiple pregnancies and the likelihood that daughters will discuss with their mothers (Fox, 1981; Fox & Inazu, 1980).

Sexual active girls and boys who engaged in high-risk sexual behavior viewed that their parents are less supportive than those low-risk adolescents who use contraception (Luster & Small, 1994). Rodgers (1999) also found that parents perceived as less supportive and not discussing sexual issues, had adolescents with higher-risk taking sexual behavior than those adolescents who perceived their parents are more supportive and communicate about sex.

Based on the review of relevant literature, it can be summarized that youth that got less support from parents were more likely to engage in premarital sex than youth that received more support from parents.

d) Parent-Youth Communication

The communication between parent and child is classified into five dimensions:

1) The frequency and depth of communication,
2) The style or manner in which information is given,
3) The content of the information that is given,
4) The timing of the communication and
5) The general family environment, for instance the quality of the relationship between parent and teen in which the communication is carried out (Jaccard, 1995). Few studies have taken these dimensions into account (Jaccard, Dittus & Gordon, 1996).

Miller (1998) illustrated that parent-child communication does not seem to have uniform effect on the youth's sexual attitudes and behaviors. The association between parent-child communication and the youth sexual attitudes and behaviors seemed to vary depending on the specific aspects of communication that are considered, for instance frequency, content or quality of communication.

Research that examined the relation between parent-child communication and adolescent sexual behavior reported inconsistent results. Some researchers noted that family discussion about sex is related to more knowledge about sexuality and AIDS among adolescents, as well as less sexual active and more likely to use an effective means of contraception (Miller, Levin, Whitaker & Xu, 1998; Muller & Powers, 1990). Dilorio et al. (1999) also found that adolescents who reported to discuss with their mothers about sexuality were less likely to initiate sexual intercourse and to have conservative values. In contrast, Newcomer and Udry (1985), Fisher (1986), Pick & Palos (1995) and Jaccard, Dittus & Gordon (1996) and Miller et al. (1998) reported that there is no association between parent-child communication about sex and adolescent sexual knowledge, attitudes or behavior. Donovan (1995) found relatively little family communication on sexual issues. Widmer (1997) noted that higher levels of parental communication could be lead to an increased likelihood of adolescent intercourse. This inconsistency is due to crude measures and simplistic conceptualization of the communication process (Miller et al., 1998).

Luster and Small (1994) suggested that a relation between mother-daughter discussion about contraception and the likelihood that a sexually active adolescent female would have one partner with whom she consistently used contraception. Parent-child relationship and communication about sex and sexuality is a strong determinant of adolescent's sexual behavior. Less maternal and paternal communication about sexuality were related to more sexual behavior and less sexual knowledge (Somers & Paulson, 2000; Blake, Simkin, Ledsky, Perkins & Calabrese, 2001). However, Kirby (1999) suggested that a clear simple relationship between greater parent-child communication and less adolescent risk-taking behavior, but both adults and youth believe it is important, does not exist.

Adolescents who reported high levels of parental monitoring and communication regarding sexual risks were also less likely to have engaged in anal sex. Communication was also positively related to the initiation of condom use and consistent condom use (Romer et al., 1999). Parent-child communication about sex is considered by many to be an effective way of encouraging adolescents to adopt responsible sexual behavior (Moore & Rosenthal, 1993). Communication about sexuality, HIV/AIDS and appropriate strategies to minimize risk is particularly important for adolescents. Previous studies confirmed that there was an association between parent-child communication about sex and AIDS and increase adolescent's knowledge about sex and reduced risk-taking behavior (Jaccard, Dittus & Gordon, 1996; Pick & Palos, 1995).

Another study conducted by Whitaker et al. (1999) suggested that parent-teenager discussions about sexuality and sexual risk were associated with an increased likelihood of teenager-partner discussions about sexual risk and condom use. They concluded that the relationship between parent-teenager communication and teenager's condom use was independent of this association.

There were few studies on parent-child communication in developing countries, as well as in South East Asia. A study on sexual attitudes and experience of rural Thai youth carried out by Isarabhakdi (2000) found that there was no difference in frequency of discussing general matters for males and females and for ever-married and never-married youth.

Based on the aforementioned research, it could be summarized that several studies on adolescent sexual communication showed inconsistent, mixed and inconclusive results. Some investigators found that there was a negative association between parent-youth sexual communication and sexual experience. Some authors found that parent-youth discussion about sex was not related to timing of sexual intercourse or contraceptive use (Chewning & Koningsveld, 1998). In contrast, some authors suggested that there was a positive relation between sexual communication and sexual risk behaviors of youth (Rodgers, 1999).

e) Perceived Parental Expectations towards Sex

Parental attitudes about youth's sexual activity are correlated with youth's sexual behavior. Permissive parental attitudes are related to earlier sexual intercourse among youth. In contrast, youth who perceived that their parents disapproved of sexual intercourse were the lower hood probability to engage in sexual activity (Whitaker, Miller, May & Levin, 1993).

Particularly, maternal disapproval of premarital sex has an important influence on adolescents' sexual activity and their contraceptive use. In a study in the United State of America showed that, adolescents that perceived strong maternal disapproval of sex initiated intercourse later than those who did not perceive strong disapproval (Sieving, McNeely & Blum, 2000). Similarly, Jaccard, Dittus and Gordon (1998) also suggested that adolescent's perceptions of maternal disapproval of premarital sex and satisfaction with the mother-child relationship were significantly related to abstinence from adolescent sexual activity and to less-frequent sexual intercourse and more consistent use of contraceptives among sexually active youths in the United States. They also found that the adolescents' perception of maternal attitudes tends to be more predictive of sexual risk behavior than maternal reports. This can be explained that maternal reports are biased reflected towards all communication, whereas the teen report is biased towards reflecting only communication that affected the teen (Jaccard, Dittus & Gordon, 1998). In contrast, Dittus & Jaccard (2000) found that actual maternal attitudes are not significantly associated with use of birth control and occurrence of pregnancy, but they were associated with the occurrence of sexual intercourse even when adolescent perceptions were held constant.

Youth were more likely to underestimate their mother's level of disapproval of their engaging in sexual activity if:

1) They perceived their mothers as approving of the use of birth control,
2) They have had sexual intercourse,
3) They report parental behaviors that characterize less control and independence of choice and to a lesser extent, if they are,
4) They reported engaging in less parent-child communication about sex,

5) They are male and
6) They are older (Dittus & Jaccard, 2000).

Both theory and research have found that youth reports of parental attitudes and communication should be more predictive of behavior than parental reports because of reflection of the cognition that teens are acting upon. Research that has emphasized parental attitude tends to find the better predictive power for perceived versus actual parental expectation (Acok & Bengston, 1980; Wilks et al., 1989). However, none of the studies with parents has explored the issue for adolescent sexual behavior.

Additionally, mothers were more likely to underestimate the sexual behavior of their youth if they reported not engaging their teens in the conversation about sex. They started conversation about sex with their children when they think that their children are sexually active. Mothers who more strongly disapproved of their teens engaging in sexual intercourse were more likely to judge their teens as not having had sexual intercourse when actually they had. Maternal underestimation decreased as the quality of the mother-teen relationship improved. Maternal judgments of sexual activity seem to be based on the mother's implicit, personal theory about factors that impinge on sexual activity and their teen's relative standing on those factors (Jaccard, Dittus & Gordon, 1998).

Dittus and Jaccard (2000) noted that perceived maternal disapproval has a causal link to adolescent sexual activity. There are two plausible explanations for this statement. Firstly, the adolescent's age serves as a confounder that produces a false association between variables. When adolescents become older, their mothers tend to become more approving of them engaging in sexual activity. Another explanation reverses the direction of causality. When a mother learns that their child is sexually active, they become more agreeable of their youth's engaging in sexual activity, thereby, accepting the unavoidable. Adolescent's sexual behavior influences the mother's attitude rather than attitude influences behavior.

A study on the sexual attitudes and experiences of rural Thai youth (Isarabhakdi, 2000) revealed that the perception of youth on parents' attitudes toward premarital sex reported that traditional customs existed. For males, parents would be more likely to accept male's premarital sexual behaviors. Six percent of the never-married respondents reported that their parents would accept and none of them mentioned that parents would ignore it.

Based on the literature mentioned above, it could be concluded that perceived parental expectation regarding towards sex was a strong predictor of sexual behavior among youth. Youth who perceived that parents disapproved of premarital sex were less likely to be sexually active compared to those who perceived that parents approved them having sex. Additionally youth's perception of parental disapproval of premarital sex was a strong predictor of sexual attitudes and behaviors than actual maternal or paternal perceived disapproval of premarital sex.

2.7 Summary

From the literature review, we can summarize that youth's sexual attitudes and behaviors are of particular importance. There are many theories or concepts explaining the sexual behavior at different levels. The existing literature suggested that youth are at high risk taking sexual behavior of the negative of health consequences, which related to early and unsafe sexual activity such as HIV/AIDS, STIs, as well as unintended pregnancy. Evidence demonstrates that engaging in sexual activity is influenced by multiple risk factors from multi-systems: interpersonal, familial and extra familial. So, research investigated only one aspect of sexual attitudes and behaviors, the implication of the findings for understanding the complex of youth sexual risk taking is limited.

It can be seen that much remains to be explored regarding youth sexual attitudes and behaviors, including the risk and protective factors against risk-taking sexual behaviors. Youth, as stated at the ICPD, are a very vulnerable part of the society and they are the key for the future generations, thus their problems and needs ought to be taken into consideration to meet their needs and expectation from a holistic point of view.

Family is an important factor in protecting youth from premarital sexual behaviors, particularly in the Lao society. There have been little known about parent-youth interaction such as parent-youth closeness or connectedness, parent-youth communication, and perceived parent expectation regarding sexuality in Lao PDR and the influence of parent-youth interaction on youth sexual attitudes and behaviors. Therefore, investigating in the area of parent-youth interaction and sexual attitudes and behaviors will supplement the existing literature of sexual behaviors among Lao youth.